The Winds of change in Africa-China relations? Contextualising African agency in Ethiopia-China Engagement in Wind energy Infrastructure Financing and Development

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THE WINDS OF CHANGE IN AFRICA-CHINA RELATIONS?
CONTEXTUALISING AFRICAN AGENCY IN ETHIOPIA-CHINA ENGAGEMENT IN WIND ENERGY INFRASTRUCTURE FINANCING AND DEVELOPMENT

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Thesis submitted for the degree of Doctor of Philosophy in International Development

Development Policy and Practice
Faculty of Arts and Social Sciences
The Open University

November 2019
Abstract
Despite the long-standing tradition in the mainstream media, policy and academic scholarship on China’s role in investing and providing development finance to Africa, the majority of narratives assume China dominates the decision-making processes around the engagement. Drawing on qualitative case study rooted in an extensive field based research, I challenge such assertions with contextual reference to Ethiopia-China engagement in wind energy infrastructure financing and development. Situated in the authoritarian developmental state praxis and African agency analytical framework, I first examine the drivers and motivations that contributed to both Ethiopian and Chinese actors to finance and develop the Adama wind farms. Second, I explore engagement modalities and negotiation processes between Ethiopian and Chinese stakeholders along the wind farms projects’ lifecycles. Third and finally, I examine the engagement outcomes and local development impacts of the wind farms.

The study found that, firstly, there were a plethora of drivers and motivations for both Ethiopian government and Chinese state and semi-state actors to finance and develop the wind farms. The choice by the Ethiopian government to seek financing from China and consequently award the contracts to Chinese enterprises to develop the two wind farms was driven by a bricolage of economic and political factors. Second, Ethiopia’s domestic socio-economic and political makeup conditioned the Chinese interactions with the Ethiopians to ensure that the Ethiopian government retained control, influence and direction of the engagement from brokering to commissioning of the wind farms. That said, in some cases, the Chinese were allowed to shape the processes where the Ethiopian government had limited control and local capacity. Third and finally, local outcomes and development impacts of the two wind farms are complex and are intertwined across multiple actors. On one hand, the wind farms are new frontiers for enabling environment-friendly electricity generation to sustainably power industrial growth and ensure modern energy access for all, and on the other hand, are seen as symbols of dispossession and disruption of communities’ livelihood capabilities. Such complexity underscores the contested and disruptive nature of development. Importantly, the engagement outcomes and local development impacts of the Adama wind farms were dependent on Ethiopia’s regulatory and governance structure, and to a lesser extent the conditioning effects of Chinese transnational capital features. This thesis’ findings, therefore, help to develop a new reading and better understanding on politics of development in Ethiopia and the role of African agency in shaping engagement outcomes with external actors.
Dedication

To all Africans strategically and consciously engaging with the Chinese to the benefit of our continent.
Acknowledgements

This PhD research project could not have been possible without the support and generosity of the following people and institutions. First, I extend my gratitude to my supervisors, Professors Giles Mohan and Neil R. Edwards, Dr Richmond Attah-Ankomah and Dr Belinda Wu for their academic prowess and guidance in this emerging field of Africa-China engagement in the renewable energy sector. I am particularly grateful to Professors Giles Mohan and Neil R. Edwards for their support, critique, constant feedback and encouragement during this PhD journey. Without their academic guidance, this PhD research would not have come to fruition.

Second, I would like to thank the Open University Strategic Research Area in International Development and Inclusive Innovation for the award of the studentship. Special thanks to Heidi, Alessandra, Emily and Dawn for their administrative support during my PhD journey.

I am grateful to the Development Policy and Practice Group for making it the best Department to undertake a PhD in International Development. To Prof Dave Wield, Dr Ben Lamper, Dr Julius Mugwagwa, Dr Peter Robbins, Prof Theo Papaioannou, Prof Hazel Johnson, Dr Les Levidow, Dr Craig Walker, Richard Pinder and Dr Dinar Kale thank you for the intellectual support during the course my study.

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A PhD study is quite lonely and emotionally draining at times. I want to thank my fellow students and friends, Alois, Isheunesu, Raktim, Fred, Alice, Gauri, Sibulele, Andrew, Dimos, Jacob, Emmanuel, Esubalew, Dame, Emnet, Elias, Makaita and Marco for the words of encouragement. Many thanks to Tim and Helen Cutting for welcoming me to Milton Keynes and to vaGatawa, vaChomuzinda, vaMajakwara—Chikwata for making Milton Keynes home and showing me where to get have yeku Memlings. To Prof Clapperton Mavhunga, thank you for the mentorship.
This acknowledgement would not be complete without mentioning my wife Vhahangwele and son Kuzivakwashe, who sacrificed a lot and experienced three and a half years of my absence but remained patient. I love you. And to my parents and siblings, thank you for the prayers, support and encouragement.

Lastly, to the Almighty God, thank you for giving me the strength to start and finish this project. Makanaka Jesu.
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<tr>
<td>AAU</td>
<td>Addis Ababa University</td>
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<tr>
<td>AAUIT</td>
<td>Addis Ababa University Institute of Technology</td>
</tr>
<tr>
<td>ADLI</td>
<td>Agricultural Development Led Industrialisation</td>
</tr>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>ASTU</td>
<td>Adama Science and Technology University</td>
</tr>
<tr>
<td>AU/C</td>
<td>African Union/Commission</td>
</tr>
<tr>
<td>BASIC</td>
<td>Brazil, South Africa, India and China</td>
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<tr>
<td>BRICS</td>
<td>Brazil, Russia, India, China and South Africa</td>
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<tr>
<td>CARI</td>
<td>China Africa Research Initiative</td>
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<tr>
<td>CDM</td>
<td>Clean Development Mechanism</td>
</tr>
<tr>
<td>CER</td>
<td>Certified Emission Reduction</td>
</tr>
<tr>
<td>C-EXIM</td>
<td>Export and Import Bank of China</td>
</tr>
<tr>
<td>CGCOC</td>
<td>China Geo-Engineering Corporation Overseas Construction Group</td>
</tr>
<tr>
<td>C-MFA</td>
<td>Chinese Ministry of Foreign Affairs</td>
</tr>
<tr>
<td>CREIA</td>
<td>Chinese Renewable Energy Industrial Association</td>
</tr>
<tr>
<td>CRGES</td>
<td>Climate Resilient Green Economy Strategy</td>
</tr>
<tr>
<td>EAPP</td>
<td>East Africa Power Pool</td>
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<tr>
<td>EEA</td>
<td>Ethiopia Energy Authority</td>
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<tr>
<td>EEP</td>
<td>Ethiopia Electric Power</td>
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<td>EEPCo</td>
<td>Ethiopia Electric Power Corporation</td>
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<tr>
<td>EEU</td>
<td>Ethiopia Electric Utility</td>
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<tr>
<td>EFRSSI</td>
<td>Ethiopian Foreign Relations Strategic Studies Institute</td>
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<td>EIC</td>
<td>Ethiopian Investment Commission</td>
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<td>E-MFA</td>
<td>Ethiopian Ministry of Foreign Affairs</td>
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<td>EPC</td>
<td>Engineering Procurement and Construction</td>
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<td>EPRDF</td>
<td>Ethiopian People's Revolutionary Democratic Front</td>
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<td>ESIA</td>
<td>Environmental and Social Impact Assessment</td>
</tr>
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<td>ESLSE</td>
<td>Ethiopian Shipping and Logistics Services Enterprise</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>FOCAC</td>
<td>Forum on China Africa Cooperation</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GEF</td>
<td>Global Environment Facility</td>
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<tr>
<td>GTP</td>
<td>Growth and Transformation Plan</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>GWEC</td>
<td>Global Wind Energy Council</td>
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<tr>
<td>HREC</td>
<td>Human Research Ethics Committee</td>
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<tr>
<td>IBSA</td>
<td>India, Brazil and South Africa</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>INDC</td>
<td>Intended Nationally Determined Contributions</td>
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<tr>
<td>IPP</td>
<td>Independent Power Producers</td>
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<td>IR</td>
<td>International Relations</td>
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<td>IRENA</td>
<td>International Renewable Energy Agency</td>
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<tr>
<td>MEFCC</td>
<td>Ethiopian Ministry of Environment Forest and Climate Change</td>
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<td>MEND</td>
<td>Movement for the Emancipation of the Niger Delta</td>
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<tr>
<td>METEC</td>
<td>Metals and Engineering Corporation</td>
</tr>
<tr>
<td>MOFCOM</td>
<td>Chinese Ministry of Commerce</td>
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<tr>
<td>MOFEC/D</td>
<td>Ethiopian Ministry of Finance and Economic Cooperation/Development</td>
</tr>
<tr>
<td>MOWIE</td>
<td>Ethiopian Ministry of Water Irrigation and Electricity</td>
</tr>
<tr>
<td>MU</td>
<td>Mekelle University</td>
</tr>
<tr>
<td>NAM</td>
<td>Non-Aligned Movement</td>
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<tr>
<td>NEP</td>
<td>National Electrification Program</td>
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<tr>
<td>NGOs</td>
<td>Non-Governmental Organisations</td>
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<tr>
<td>NPC</td>
<td>National Planning Commission</td>
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<tr>
<td>OAU</td>
<td>Organisation of African Unity</td>
</tr>
<tr>
<td>PASDEP</td>
<td>Plan for Accelerated and Sustainable Development to End Poverty</td>
</tr>
<tr>
<td>PPA</td>
<td>Power Purchase Agreement</td>
</tr>
<tr>
<td>REIPPPP</td>
<td>South African Renewable Energy Independent Power Producer Programme</td>
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<td>SAP</td>
<td>Structural Adjustment Programs</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SWERA</td>
<td>Solar and Wind Energy Resource Assessment</td>
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<tr>
<td>TGE</td>
<td>Transitional Government of Ethiopia</td>
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<td>TPLF</td>
<td>Tigray People's Liberation Front</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNDP</td>
<td>United Nations Development Program</td>
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<td>WB</td>
<td>World Bank</td>
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<td>WTO</td>
<td>World Trade Organisation</td>
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CHAPTER ONE: INTRODUCTION

1.0 Introduction
On the 1st of June 2017, I woke up early on a chilly Monday morning, packed my rucksack, and together with my driver and research assistant, we left for Adama town. Driving southwards from Goro toward the Addis-Adama Expressway, I couldn't help but notice the hive of construction activity along the way - it seemed like a giant construction site. My local driver and research assistant were eager to explain: “this is our government effort, they want to fight poverty, they are building condominium houses and industrial parks so that people can get houses, then get jobs and get a good life”. The optimism is understandable, but as we edged toward the Addis-Adama Expressway, the six lanes on both sides running for almost 85 kilometres, the Chinese presence is obvious. The expressway funded and built by the Chinese in collaboration with the government of Ethiopia heralds a new era in Ethiopia - one in which China seem indispensable.

After 60 minutes, we approached Adama, the windy town located right at the throat of the great east Africa rift valley. Adama is of economic value to the country because it is the processing hub of goods traded via Djibouti. It is also of political significance to the Oromia regional state having been the capital before relocation to Addis Ababa. Around 10 kilometres from the Adama tollgate, I noticed in the distance, large, dazzling and spinning three-bladed wind turbines. Later, on visiting the villages near these turbines, I met a local priest. Legend has it that “these wind turbines were long foretold that they were going to be built” remarked the elderly priest from Bubisa Kusaye, one of the Kebeles where the wind farms are located. He went on to say:

“Long time ago, my ancestors and forefathers who lived on top of that mountain, once said to me in the future white birds will fly over this land. They will make this place beautiful, and they will be like angels flying over the land” (Interview 20171101140944 translated from Afaan Oromo to English).

Electricity infrastructure is critical for socio-economic structural transformation, but, according to the World Bank (2018) more than 70% of Ethiopia’s 102 million people have no access to electricity. In addition to contributing to economic growth by powering industries and reducing poverty, access to electricity enriches “the lives of the beneficiaries” of electricity services (Bacon & Kojima, 2016, p. 4). To address the electricity access challenge, in 2009, Ethiopia Electric Power Corporation (EEPCo) – subsequently split into the Ethiopia Electric Power
(EEP) and Ethiopia Electric Utility (EEU)\(^1\) - awarded HydroChina Corporation\(^2\) and China Geo-
Engineering Corporation Overseas Construction Group (CGCOC) an engineering
procurement and construction (EPC\(^3\)) contract plus financing in which the Chinese Export and
Import Bank (C-EXIM) provided 85% of the finance with the remainder being covered by the
Ethiopian government. The contract was initially for Adama 1 wind farm. In 2012, EEPCo
awarded another contract to the same Chinese contractor on a similar contractual scheme as
Adama 1, to construct a bigger wind farm in the same location but on a different site.
Construction of Adama 1 began in 2011 and was completed in 2012 adding 51 megawatts
(MW) to the national grid. Construction of Adama 2 began in 2013 and was completed in 2015
adding 153 MW to the national grid. In 2015, Adama 2 met more than 20% of Addis Ababa’s
total demand (PowerChina, 2016a). The two wind farms were described by both the Ethiopian
and Chinese stakeholders as the truest reflection of friendship between the two countries—
and at the 2015 Forum on China-Africa Cooperation (FOCAC) held in Johannesburg, were
used as examples of Africa-China cooperation in clean energy development (PowerChina,
2016a). For HydroChina, CGCOC and the Chinese government, the wind farms are their most
successful overseas projects and specifically Adama 2 is the largest international EPC wind
power project for Chinese corporations (PowerChina, 2016a). They are the first projects of
their kind in Africa and use a combination of Ethiopian regulatory guidelines and Chinese
standards and technology.

While the two projects are the first Chinese wind energy projects in Africa, they are embedded
in bifurcated narratives which argue that China, on the one hand, is a good stakeholder,
positively shaping Africa’s development trajectories through infrastructure, skills and
technology transfer necessary for Africa’s economic and structural transformation (see
Brautigam & Tang, 2013; Brautigam, Xiaoyang, Xia, & Harvard, 2018; Davies, 2007; Dollar,
2016; Mohan, Lampert, Tan-Mullins, & Chang, 2014; Zheng, 2014). On the other hand, some
critics argue that China is part and parcel of the global configurations of capitalism and, as
such, its engagement\(^4\) with Africa is ‘bad’ as it extends neo-colonial\(^5\) tendencies to the
detriment of Africa’s underdevelopment (see Bond & Garcia, 2015; Economy & Monaghan,
2006; Grammaticas, 2012; Michel, 2009; Patey, 2018). While there is an element of truth in
these dichotomous views, Africa is reduced to being ‘acted upon’ and ‘impacted on’ by the

---

\(^1\)EEPCo was split in 2013 to EEP and EEU. EEP is responsible for generation, transmission and system operation, and EEU
specialises on electricity distribution and sales.

\(^2\)From onwards referred to as HydroChina.

\(^3\) For definition and explanation, see chapter 6

\(^4\) Defined as any form of political, economic, social or cultural interaction between Africans and Chinese state, quasi-state, private,
or individual actors—as representatives of their governments or in their personal capacities.

Chinese (see Hanauer & Morris, 2014; Marfaing & Thiel, 2013; Park, Lampert, & Robertson, 2016). Africa is presented as less assertive, lacking negotiating capacity and autonomy when engaging with China (see Carmody & Owusu, 2007; Crabtree, 2018; Soulé-Kohndou, 2019b).

In this thesis I challenge these oppositional discourses by applying the analytical framework of African agency—aimed explicitly at ‘bringing in’ Africa in Africa-China scholarly debates. I define African agency⁶ as the ability or capacity of African formal/informal actors whether collectively (as states/institutions) or individually, to act consciously and sometimes unconsciously to achieve (un)intended objectives out of a combination of free will and choice. Furthermore, this choice and free will lies in deciding “between potential courses […] subject to the [African] actor’s conscious deliberation” (Hay, 2004, pp. 94-95 cited in Hudson & Leftwich, 2014, p. 73).

Research on African agency in the context of Africa-China engagements is scanty but increasing (Carmody & Kragelund, 2016; Corkin, 2013; Gadzala, 2015a; Lampert & Mohan, 2015; Mohan & Lampert, 2013; Phillips, 2018; Procopio, 2019; Soulé-Kohndou, 2016, 2019b). For example, some studies have attempted to re-insert (Mohan & Lampert, 2013), make space for (Lampert & Mohan, 2015) and uncover (Corkin, 2013) African agency in Africa-China engagements. Others have argued that Africans have exercised agency when interacting with the Chinese, but only in brokering the engagement and not changing the structural aspects of the relations (Carmody & Kragelund, 2016; Phillips, 2018). Although these studies recognise that Africans are not passive actors in their engagements with China and the architecture of international relations (Brown & Harman, 2013; Odoom & Andrews, 2017), they do not provide an adequate and disaggregated analysis of the drivers and motivations, engagement modalities and negotiation processes of the actors involved in these interactions. At the same time, far less research has been conducted which provides an analysis of how state-society relations influence and shape the operationalisation of African agency by African actors.

This thesis seeks to contribute to this body of literature on Africa-China engagements by contextualising African agency through provision of empirically grounded observations on the drivers, motivations, engagement modalities, negotiation processes, outcomes and development implications of Ethiopian interactions with the Chinese actors in the financing and development of Adama 1 and Adama 2 wind energy infrastructure. Particularly, my thesis focuses on accounting for the Ethiopian actors’ exercise of agency when interacting with the Chinese in these two wind farms. I argue that, African agency should be understood as contextual and cannot be generalizable across space and time. African actors’ (regional

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⁶ For detailed explanation and definition see chapter 2.
bodies, state, civil society and individuals) exercise of agency when interacting with the Chinese therefore is relational.

This chapter serves to introduce the thesis and is arranged as follows. Section 1.2 and 1.3 takes stock of literature on Africa-China studies and global wind energy sector dynamics and the role of China. Section 1.4 reviews literature on African agency in the context of Africa-China relations leading to the presentation of the research questions in section 1.5. Section 1.6 provides the contributions of the study while section 1.7 clarifies the focus of the study. The final section provides the structure of the thesis.

1.1 Taking stock of Africa-China relations
Research on Africa-China relations has mainly focused on two strands. The first explores the drivers and motivations of China’s engagement with Africa be it in trade, aid, investment or politics (see Kaplinsky & Messner, 2008, Chemingui & Bchir, 2010; Elu & Price, 2010; Wang, 2010; Anshan, 2006; Hanauer & Morris, 2014). Most of these studies conclude that China is driving the engagements. Research in this strand has shown that drivers and motivations for increased Chinese engagement with African countries vary with the sector and country involved (Chen, Dollar, & Tang, 2018) and conclude that the search for markets for Chinese goods and services remains one of the underlying drivers of engagement in Africa (Pigato & Tang, 2015). For some studies (Hu, 2015; Thrall, 2015) China seeks to diplomatically and internationally isolate Taiwan (Lee & Sung, 2015) which it considers a runaway province (French, 1994) and China uses aid, trade, and investment to influence African countries not to have relations with Taiwan. In Africa, only Eswatini still maintains diplomatic relations with Taiwan as of 2019. Some studies argue that China’s emerging role in international relations comes with responsibilities and pressure that require international alliances (Halper, 2010) so that trade, aid and investment are often used as sticks and carrots for lobbying purposes. This could partly explain the significance of FOCAC, United Nations (UN), Group of 77 (G77)+ China, Brazil, Russia, India, China and South Africa (BRICS) and other platforms as channels of yielding international support (see Pigato & Tang, 2015; Thrall, 2015). Some studies also suggest that the ‘Go Out policy’ and more recently the Belt and Road Initiative (Scobell et al., 2018) are major drivers of China-Africa engagements (Chen et al., 2018).

However, these studies fail to account for how Africans drive the engagements, rather presuppose that China drives the engagement. At the same time, little or no research has been done to unpack the drivers and motivations of the Chinese enterprises, whether state or semi-state owned, in engaging with Ethiopia specifically in the context of wind energy infrastructure financing and development. Although Shen and Power (2017) have attempted to understand the push and pull factors for the Chinese state and ‘quasi’-state enterprises’
engagements in South Africa’s solar and wind energy sector, the study reaffirms the Chinese as the drivers. This undermines the significance of the South African Renewable Energy Independent Power Producer Programme (REIPPP) which created pull factors for the Chinese. Overall, the results on the drivers and motivations for Chinese engagement with African countries highlight the need for further research in the context of the wind energy sector. Currently, it is unclear what drives the Chinese involvement in Africa’s wind energy. As noted, “China’s involvement in the continent’s utility-scale renewable energy sector is a relatively recent development and is thus an area that warrants further research” (Baker & Shen, 2017, p. 4). Besides, “China’s increasing engagement in the promotion of renewable energy projects in Africa seems to have gone almost unnoticed […]. China’s engagement with renewable energy technologies on the continent is scarce” (Shen & Power, 2017, p. 679). This thesis endeavours to fill the gaps in the literature by empirically showing how Ethiopian drivers and motivations contributed to Chinese involvement in the two projects.

The second strand of literature explores the impacts of Chinese engagement with Africa. Some studies suggest that China negatively impacts on Africa especially within the political and governance aspects. For example, Mohan (2015a, p. 1) argues that the “inter-elite brokerage […] tends to bypass domestic channels of accountability and so undermines good governance”. Other studies posit that China supports rogue states such as Zimbabwe and Sudan (Blignaut, 2007; Naim, 2009; Yin & Vaschetto, 2011). Some view China as a neo-colonialist in Africa because of its poor record on environment standards, and above all, dumping of low-value products in Africa (Edwards & Jenkins, 2013; Halper, 2010; Haugen, 2011) which negatively impact Africa’s manufacturing capabilities.

While China is purported to be negatively impacting on Africa’s development, some studies argue the opposite. For example, Davies (2007), Wu and Cheng (2010) and Yin and Vaschetto (2011) posit that China’s ‘miracle’ of taking more than 500 million people out of poverty serves as a good starting point for cooperation and experience sharing between China and Africa in poverty reduction. For Mohan and Power (2010, p. 462), “Chinese leaders and strategists believe that China’s historical experience and vision of economic development resonates powerfully with African counterparts”. To put things into perspective, research shows that the Chinese have been involved in financing infrastructure projects in 53 of the 54 countries in Africa and between 2000 and 2017 China extended more than $143 billion in loans to the region (China Africa Research Initiative, 2018b). In 2018, during the FOCAC summit in Beijing, President Xi Jinping pledged $60 billion in commercial loans to Africa7. Because of this loan

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provision, China is now the largest bilateral creditor to sub-Saharan Africa and as of 2014 it accounted for 14 per cent of the region’s total debt stock⁸ (Chen & Nord, 2018). In terms of foreign direct investment (FDI), China’s inflows to Africa remain very low and in 2015 accounted for just over 5 per cent of the total FDI inflows in the region. Although two-way trade between Africa and China remains skewed in favour of China, it reached more than $200 billion by the end of 2014 (Ibid). As of 2017, a McKinsey report shows that more than 10,000 Chinese owned firms are in operation in Africa of which more than 90 per cent are privately owned (Sun, Jayaram, & Kassiri, 2017a). The majority of these firms are in the manufacturing sector while state-owned enterprises tend to dominate the construction sector. These engagements, as a result, have led to skills development, technology accumulation, job creation, low-cost capital for infrastructure development and above all transfer of management and entrepreneurial skills necessary for Africa’s structural and economic transformation (Schneidman & Wiegert, 2018).

Overall, these studies (Wu & Cheng, 2010; Yin & Vaschetto, 2011) postulate that China-Africa relations contribute to the generation of revenues, improve infrastructure development which is important for Africa’s growth and development. It is not surprising that China cancelled 168 debts of 33 African countries in the 2009 FOCAC thereby easing African governments’ indebtedness (Schiere, 2010). Shinn (2007) further argues that China’s engagement with Africa differs significantly from traditional donors who appear to condition aid/development finance. Although cases differ, Shinn (2007) suggests that China provides loans/aid/development finance at lower interest rates and with repayment plans different from those of the Global North. Kaplinsky and Morris (2009, p. 561) conclude that “the costs of these large infrastructural projects are 20–30 per cent lower than those of northern, South African and Brazilian competitors”.

These competing views on Chinese impacts in Africa highlight several gaps. First, there is a lack of disaggregated data on Chinese engagement with African countries. This leads to generalisation of findings where one ‘bad’ case is used to represent the totality of Chinese engagement in Africa. Second, the rise of China is seen by Western stakeholders as a challenge to Euro-America spheres of influence in Africa (Reuters, 2011). This creates room for Western journalists to demonise Chinese engagement in Africa, whereby the West is seen to hold higher moral and ethical standards of knowing what is best for Africa. However, little is known about how domestic socio-economic and political governance structures condition the practices of Chinese actors in their engagements with Africans, specifically in the context of infrastructure development (Makundi, Huyse, & Develtere, 2017). My intention is to provide a

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⁸ Excluding South Africa
critical analysis of the Ethiopian authoritarian developmental state’s regulatory and governance structures in mediating the outcomes and development impacts of Chinese involvement in the financing and development of Adama wind farms. Such an attempt shifts the focus of attention from the Chinese to the host country’s political environment.

1.2 Taking stock: China’s role in the global wind energy sector

Wind energy generation has seen remarkable growth. Estimates from Global Wind Energy Council (GWEC) show that the sector will constitute “20% of global electricity by 2030 creating 2.4 million new jobs and reducing carbon dioxide emissions by more than 3.3 billion tonnes per year and attract annual investment of about €200 billion” (2016a, p. 1). By the end of 2017, China’s cumulative installed wind energy capacity was over 188,392 MW accounting for 35% of the global installed capacity of 539,123 MW. In 2017 alone, China installed 19,660 MW which was about 37% of the 52,492 MW global installations that year (GWEC, 2018). In 2019, 8 of the world’s top 15 wind turbine equipment manufacturers are based in China9. Mingyang and Goldwind are ranked number one suppliers in medium speed geared drive and direct drive turbine technologies respectively (GWEC, 2019). In 2014, the top 10 global manufacturers of wind turbines with the largest installation market share included three Chinese companies, namely Goldwind, United Power and Mingyang (Smead, 2014). While the Chinese enterprises in the wind energy sector are on the rise globally, much of their market installation share has been domestic. Shen and Power (2017) suggest that the Chinese domestic market has reached saturation point, creating fierce competition, unintentionally forcing companies to ‘Go Out’. According to the Chinese Renewable Energy Industrial Association (CREIA, 2014), Chinese enterprises exported wind turbine equipment to more than 27 countries between 2007 and 2013 (see table 1.1).

Table 1.1 Chinese global wind energy installations by 2014

<table>
<thead>
<tr>
<th>Region</th>
<th>Installed Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>648.75</td>
</tr>
<tr>
<td>Europe</td>
<td>423.85</td>
</tr>
<tr>
<td>Africa</td>
<td>258</td>
</tr>
<tr>
<td>Oceania</td>
<td>185</td>
</tr>
<tr>
<td>North America</td>
<td>159.31</td>
</tr>
<tr>
<td>Latin America</td>
<td>86.34</td>
</tr>
</tbody>
</table>

Source: (CREIA, 2014)

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9 Vestas, Goldwind, Siemens Gamesa, GE Renewable, Envision, Enercon, Mingyang, Nordex Acciona, United Power, Sewind, Suzlon, Senvion, Windey, CSIC Haizhuang, and XEMC in their sequential order.
Existing literature on China’s rise and impact in the global wind energy sector can be classified into two strands. The first strand focuses on the domestic explanations of China’s development of the wind energy sector (Tan, Zhao, Polycarp, & Bai, 2013). Numerous studies have paid attention to the role of the Chinese central state regulatory mechanisms in creating a favourable environment for the growth of wind energy (Lewis, 2013; Zeng, Li, & Zhou, 2013). In this regard, the Chinese central government planning and policy directions which aimed at self-sustenance in renewable electricity generation is identified as the primary driver of this growth (Li, Hubacek, & Siu, 2012; Zhang, Andrews-Speed, & Zhao, 2013). Some studies also suggest that foreign stakeholders, in particular Denmark and Germany, assisted China to develop the wind energy sector (Lema, Berger, & Schmitz, 2013; Netherlands Economic Network in China, 2014).

The second category of research focuses on the impact of the Chinese role in the global wind energy sector. Lema, Berger and Schmitz (2013) suggest that China has developed five corridors of influence in the wind energy sector: ‘market’, ‘production’, ‘coordination’, ‘financing’ and ‘innovation’. These corridors of influence have global implications in the sector. Research also shows that the Chinese enterprises in the United States of America (USA), Germany, Australia and Canada have revolutionised the generation of electricity from wind; manufacturing of wind energy technology; research and development; sales, marketing and support; electricity distribution; EPC contracting, and investment (Conrad & Meissner, 2011; CREIA, 2014; Lema et al., 2013; Lewis, 2013; Mathews, Tan, & O”Faircheallaigh, 2015; Ydersbond & Korsnes, 2016; Zeng et al., 2013).

China’s involvement in Africa’s wind energy sector remains low. While data is murky, it is generally agreed that China undertakes joint venture projects in wind energy infrastructure financing, EPC, and in some instances operations and maintenance services and a very minimal role in setting up manufacturing firms of wind energy technologies (Baker & Shen, 2017; IEA, 2016; Power et al., 2016). Although China’s presence in Africa’s wind energy sector is increasing, motivations for China’s involvement remain unknown. To date, China has been involved in Ethiopia and recently in South Africa— 244.5 MW De Aar wind farm built by Longyuan Power Group Corporation. In South Africa, Shen and Power (2017) postulate that China’s involvement relates to the need for market entry, wherein South Africa’s domestic policy and economic profitability of investing in the sector were the main motivations. Likewise, Power et al (2016) share similar conclusions with a stronger emphasis on the Chinese ‘Going Abroad’ policy, and South Africa’s REIPPPP as drivers of Chinese firms’ entry in South Africa’s market. In some studies, China’s involvement in Africa’s wind energy sector has been linked to the need for natural resources, where China finances wind energy infrastructure development and in turn, the host government repays the loan using natural resources—
known as the ‘infrastructure for resources model’ (Corkin, 2013; IEA, 2016). However, no evidence exists to back this claim in the context of wind energy development in the continent. For Conrad, Fernandez and Houshyani (2011) China’s involvement in Africa’s renewable energy sector is driven by reputational and climate change motives, with Culp (2016) arguing that reputation is vital for China given its track record of pollution and environmental degradation. Clean energy investments, whether in China or Africa, contribute to reputational re-branding where Beijing would be seen to be an environmentally conscious and responsible stakeholder in the fight against climate change (Newell, Power, & Bulkeley, 2016).

So far, however, there has been little research on the involvement and impacts of Chinese enterprises in Ethiopia’s wind energy sector. A recent study by Chen (2016) comparatively assessed the sustainable development impacts of the Chinese constructed Adama and French constructed Ashegoda wind farms. Her research concluded that there is no huge difference in the sustainability impacts of Chinese and French constructed wind farms. Her major findings were on skills and technology transfer and employment creation. A second study has also comparatively assessed the technology transfer between Adama and Ashegoda wind farms framed with the North-South and South-South skills and technology transfer framework (Chen, 2018). These two studies provide a foundation for my research but neither scratched below the surface to unearth the drivers and motivations, engagement modalities and negotiation processes and outcomes of Chinese investment in Ethiopia’s wind energy. Again, the two studies do not examine the Ethiopian actors’ agency in influencing and conditioning the engagement patterns and dynamics. Development of wind energy in Ethiopia should be researched from an Ethiopian perspective where the government is targeting cuts in carbon dioxide emissions by 64% by 2030 and to install more than 5000 MW from wind by 2020 (Interview 20170609111018). This indicates a need for research to unearth the interaction dynamics between Ethiopian and Chinese stakeholders.

1.3 Towards inclusivity? Inserting the African agency in Africa-China engagements
Apart from the two strands of literature discussed in section 1.2 a new body of literature is attempting to shift the focus from China to looking at their relations from an African perspective. This literature suggests that the impact of China’s engagement with Africa is directly attributed to African countries’ domestic legal frameworks and institutional capacities which negatively or positively shape relations with China (Gadzala, 2015a). Rather than extending the blame to China, the literature calls for the insertion of African agency in discourses around China-Africa relations (Corkin, 2013; Lampert & Mohan, 2015; Phillips, 2018; Procopio, 2019; Soulé-Kohndou, 2019a), which is an area where this study seeks to contribute. Firstly, any application of African agency in its engagement with China helps one to go “beyond the tired tropes of an Africa that is victimised, chaotic, violent and poor” (Brown
These ‘tired tropes’ have by and large peripheralised Africa in which China is seen to be directing the pace, nature and level of engagement. Such tired tropes emanate in part from mainstream media, academia and think tanks that presuppose Africa as a “pliant third world client of either West or (now) East” (Gadzala, 2013, p. 1). Secondly, the changing economic and demographic variables where Africa is an actor contributing to the global production of knowledge and circulation of capital, allows African socio-political and economic actors to claim their space in global configurations of power. This implicitly brings to the fore the actions, choices, manoeuvres, sacrifices, diplomacies, and strategies undertaken by these African actors—thereby painting possibilities of an Africa able to carve out its space in tight corners. Thirdly, as Brown and Harman (2013) argue, it also allows for a re-constructtion of international relations from a bottom-up approach in which the focus emanates from a small, probably weak country, which is nonetheless able to influence global politics.

There is emerging literature on African agency in Africa-China engagements and this literature has conceptualised African agency from two different but interrelated perspectives: African non-state actors’ agency and African state actors’ agency. The first perspective underscores agency exercised by African non-state actors’ when engaging the Chinese directly or as responses to how their respective governments engage China. Few but increasing studies shows how African actors beyond the state influence engagement patterns with the Chinese. For example, Lampert and Mohan’s (2015) ethnographic research in Nigeria and Ghana is instructive. It shows that Nigerian and Ghanaian traders exercise agency in ways that ensure they retain value and control of the interactions with the Chinese across various scales and times. In another study on Ghana-China and Nigeria-China entrepreneurs relations, Mohan and Lampert (2013) shows that Nigerian and Ghanaian actors were able to exercise agency using their social, political and patronage networks to shape their interactions with the Chinese in the businesses. In these case studies, the Chinese were forced to adapt to African demands, showing Chinese flexibility. Carmody and Taylor (2010) terms this flexigemony. However, Carmody and Taylor’s (2010) take on Chinese adaptability to African contexts, especially in resource-rich Zambia and Sudan cases, underscores the power asymmetry between China and Africa where the Chinese have the power to adapt, demonstrating a hegemonial argument. This watered-down African innovative ways of influencing their interactions with the Chinese. Beyond the flexigemony perspective, Taylor’s (2015) work in Nigeria presents an interesting take of African agency seen through the lenses of Nigeria-

10 Investment and market forces are increasingly moving towards Africa as the next frontier market—as seen by some Chinese private companies establishing factories in Ethiopia and other African countries. Also, Africa has more than 1.2 billion people who are young and economically active which creates large pool of labour supply at comparatively lower value than in some parts of the world. This is accompanied by low cost factors of production. Finally, transnational capital is interested in exploiting existing trade agreements between African countries and USA (African Growth and Opportunity Act) and Europe (Everything But Arms).
China relations. He proposes ‘counter-agency’ exercised by non-state actors such as Movement for the Emancipation of the Niger Delta (MEND) and Boko Haram, to force the Nigerian government to ensure that proceeds of natural resources are of benefit to ordinary citizens. For Taylor, militancy is a form of agency, which somehow shapes and influence how the Chinese engage the Nigerian government especially in the oil sector.

The second perspective has been conceptualised based on how African state actors exercise agency when engaging the Chinese. A recent study by Soule-Kohndou (2019a) examines the bureaucratic agency and power asymmetries in Benin-China infrastructure development. Her study concluded that civil servants and the executive arm of the state influenced Benin-China engagement patterns before, during and after contract negotiations. Although this study is helpful as it lay the foundation for conceptualising African agency in my case studies, it focuses only on the negotiation aspect paying little attention on brokering, implementation and management of the infrastructure deals. Aimed specifically at understanding the nature and limits of Ghanaian state agency in its bilateral and multilateral relations since oil discovery in 2007, Phillips’ (2018) research shows the following. Ghanaian state actors have been able to exercise agency on aspects of brokering relations with the Chinese, Americans and traditional development banks, but not on transforming the structural basis of the engagements. This finding is similar to Carmody and Kragelund’s (2016) work on Zambia-China and Angola-China engagements where Zambians exercised limited agency, and Angolans exercised constrained agency. Phillips (2018) and, Carmody and Kragelund’s (2016) work show the influence of resources (oil and copper) in African countries exercise of agency, however, the precarious demand-supply dynamics of resources of the global markets and pricing mechanisms makes African countries to exercise limited and temporal agency, albeit in tight corner.

Another study by Procopio (2019) argues that Kenyans exercise agency when interacting with the Chinese in the context of health, trade and education sectors. She argues that African agency should be about control and ownership of the governance process of the sectors in which Africans interact with the Chinese. An edited volume by Gadzala (2015a) explores African agency of ‘strong states’ such as Ethiopia and ‘weak states’ such as Angola11 when they engage with Chinese. In the Angolan case study, Corkin (2013, 2015) argues that the Angolan state created institutional enclaves which were accountable to the political elites. For Power (2012, p. 998) Angola’s power is concentrated with the Futungo, a group of “technocrats and advisors centred on the President”. Futungo was created to specifically manage Chinese investment in Angola in order to maintain the Angolan ruling elite’s political power and legitimacy. Although Chinese investments are contributing to infrastructure

11 Strong states are countries with strong domestic political control and execution of power. Weak states lack legitimacy and their existence is threatened by domestic or external forces (Gadzala, 2015: xx-xxi).
development in Angola, elites benefit the most in comparison to ordinary citizens. Corkin’s (2015) conception of African agency in the Angolan case resonates well with Ethiopia’s engagement patterns with China, although Ethiopia does not have oil which acts as a lever. Ethiopia maintains a strong political influence in the domestic arena through the ruling Tigray People’s Liberation Front (TPLF)-Ethiopian People’s Revolutionary Democratic Front (EPRDF) Council of Ministers. This elite group is in charge of Ethiopia and controls every aspect whether foreign or domestic as demonstrated by Alemu and Scoones (2013) research on Ethiopia-China and Ethiopia-Brazil engagement in agriculture and rural development. This is because the Ethiopian state “takes a strategic approach […] focusing on particular sectors, and cultivating relationships on multiple levels, from a focus on technical exchange and technology transfer to administrative and reform to political relations” (Alemu & Scoones, 2013, p. 99). Gadzala’s (2015b) research in Ethiopia-China engagement in telecommunications infrastructure12, agriculture and defence13 sectors, shows that TPLF-EPRDF is using Chinese investments as mediums to maintain regime stability and political relevance. However, of interest, in this case, is how Ethiopia, especially under Meles Zenawi pushed for developmental state ideology in which “economic and developmental considerations are to support ideology” (Gadzala, 2015b, pp. 101–102).

I agree with Gadzala’s (2015b) view especially given Ethiopia’s political organisation and state formation history, but, one should not overrule the strategic and at times pragmatic approaches that the Ethiopian government uses in its domestic and foreign policy engagements. While ideology remains central, Chinese motivations for engagement with African governments increasingly incline towards commercial reasons (Davies, 2015), and likewise, the Ethiopian elites are also shifting towards economic determinants of engagement. As propounded by Lim Songtian, China’s Director General of the Department of African Affairs of the Chinese Ministry of Foreign Affairs:

“the engine to drive cooperation between China and Africa has been changed, the structure has been changed, the situation has been changed and of course the outcome has been changed […] This is now the cooperation driven by the market, not by the government, so whoever gets themselves ready, you benefit first and benefit more” (cited in Chikova, 2016, p. 1).

Existing studies on African agency in Africa-China relations provide an essential departure point, however they do not provide an adequate and disaggregated analysis of the drivers and motivations, engagement modalities and negotiation processes of the actors involved in these

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12 Expansion of Ethiopia’s telecommunication system by Zhongxing telecommunication (ZTE).
13 Nori-La—Ethiopian and Chinese government military joint venture company.
interactions. At the same time, far less research has been conducted which analyse how state-society relations influence and shape the operationalisation of agency by African actors. It is crucial that when examining African agency in the context of Africa-China relations, one needs to consider the variations and the unique design of these interactions. The variations can be caused by two things: (i) differences in the systems of governance in the selected case countries and (ii) differences in sectorial specificities (see table 1.2). Therefore, what previous studies established was fixed to those socio-cultural settings, arrived at by using particular theoretical and methodological approaches which were embedded in the transactional contexts where the interactions occur.

Table 1. 2 Selected literature variations and sectorial specificities

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Country</th>
<th>Case study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procopio</td>
<td>2019</td>
<td>Kenya</td>
<td>Education; Health and Trade</td>
</tr>
<tr>
<td>Phillips</td>
<td>2018</td>
<td>Ghana</td>
<td>Oil</td>
</tr>
<tr>
<td>Soule-Kohndou</td>
<td>2019;2016</td>
<td>Benin</td>
<td>Road; Administrative building</td>
</tr>
<tr>
<td>Corkin</td>
<td>2015; 2013</td>
<td>Angola</td>
<td>Oil; infrastructure</td>
</tr>
<tr>
<td>Mohan and Lampert</td>
<td>2015</td>
<td>Angola; Nigeria; Ghana</td>
<td>Oil; small-medium enterprises</td>
</tr>
<tr>
<td>Lampert and Mohan</td>
<td>2013</td>
<td>Ghana’ Nigeria</td>
<td>Traders</td>
</tr>
<tr>
<td>Gadzala</td>
<td>2015</td>
<td>Ethiopia</td>
<td>ICT; Defence; Agriculture</td>
</tr>
<tr>
<td>Alemu and Scoones</td>
<td>2013</td>
<td>Ethiopia</td>
<td>Agriculture</td>
</tr>
</tbody>
</table>

That said, specifically, in the context of Ethiopia-China relations, studies that utilise an African agency dimension are scarce. Yet, Ethiopia has been seen to be more active in conditioning its engagements with China (Brautigam, 2011). Add to this scarcity, no studies have applied the African agency framework to understand Ethiopia-China engagement in the financing and development of wind energy infrastructure. While I develop further the brokering of relations element presented in Philips (2018) and Carmody and Kragelund’s (2016) work, I empirically account for the drivers and motivations, the negotiation processes and engagement modalities, the outcomes and development implications of these infrastructures, which has so far remained under the academic radar. For example, who is involved in what, where do the engagement occur, what drives these engagements, what is the structure of the deals and how does domestic socio-economic and political conditions of African countries influence the engagement outcomes and development outcomes of the interactions. In particular, Gadzala (2015b) and Alemu and Scoones’ (2013) studies do not show the disaggregated analysis of the negotiation processes, modalities of engagement, actors, and bureaucracies involved—
except for a few cases where references have been made to ‘the state’. However, what and who is ‘the state’ here? One possibility for this could be the secrecy around the negotiation process, suggestive of the black boxes\textsuperscript{14} (Zhang, Gu, & Chen, 2015).

1.4 The research questions
Given the missing dimension of African agency in Ethiopia-China engagement in the financing and development of Adama wind farms, the following research question is proposed:

- How did the Ethiopian actors exercise agency when interacting with the Chinese in the case of Adama 1 and Adama 2 wind energy infrastructure financing and development?

To dissect this question, three sub-questions are formulated:

1. What were the drivers and motivations which contributed to Ethiopian and Chinese actors financing and developing Adama 1 and Adama 2?
2. What were the processes and modalities of engagement and how did the Ethiopian government broker and negotiate with China?
3. What are the engagement outcomes and local development implications of the two wind farms, and to what extent did the host country’s socio-political and economic variables determine these outcomes?

1.5 Contributions of the study
This study makes three interrelated contributions. The first contribution is the documentation of evidence of an evolving relationship between Africa and China in the financing and development of wind energy infrastructure. This study responds to calls for the availability of data on Chinese infrastructure financing and development terms and conditions with African countries. It also helps in disaggregating the actors—be it Ethiopian or Chinese, involved in these mega-infrastructure projects. This new data also helps one to understand what China is doing in the continent, beyond the normalised and exhausted tropes of China’s involvement in (il/legal) mining, oil and gas, land grabs, deforestation, propping-up repressive regimes and recently debt-trap diplomacy backlash. It further unpacks the role of Ethiopia-China engagement as part of South-South Cooperation (Chen, 2018) in the implementation of the Sustainable Development Goals—specifically Goal 7 aimed at enhancing and ensuring access to clean, modern, affordable and reliable energy for all (United Nations Development Programme, 2016).

The second contribution is the provision of new evidence to the theme of African agency in Africa-China studies. Engagement patterns between Africa and China involve a two-way process, where in some if not all considerations, African actors are the initiators of these

\textsuperscript{14} Processes of interactions hidden from the public.
relations for various reasons. This study shows that outcomes and local development impacts of the two wind farms were by and large mediated by Ethiopia’s domestic state-society relations. As such, this study contributes to African development narratives of bringing back ‘domestic politics’ which has been neglected upon prioritisation of ‘the market’, and yet is an important and influential factor in Africa’s development trajectories.

The final contribution is a methodological and conceptual model to explore the context where agency is exercised by Ethiopian actors when interacting with the Chinese. This model traces the agential dimensions through the projects’ life cycles where the Ethiopian actors were seen to be proactive, reactive and precautionary. This contributes to a theoretical and empirical breakthrough to the study of African actors’ agency when engaging the Chinese in mega-infrastructure development studies. It also contributes to the theoretical debate on agency/structure and helps re-affirm the role and influence of Africa in international relations and politics. In turn, this contributes to alternative international relations/development/politics beyond the dominant North-South interactions.

1.6 Clarification and focus of the study
The study applies the African agency framework to explore Ethiopia-China engagement in Adama wind farms. It is therefore important to clarify some aspects here. First, speaking about Africa as if it is a homogenous entity may present analytical challenges. Africa is made of 54+ countries with more than 2000 spoken languages (Bamgbose, 2011) and over 1.2 billion people. Bearing this in mind, existing scholarship, public discourses, images, and historical events continuously categorise Africa as a whole (Harrison, 2010). It is justified to do so (i) given Africa’s almost similar and shared experiences of engagements with external actors (Brown & Harman, 2013). Although in the context of China, histories may be relatively different, there is a shared belief that the Chinese modus operandi is almost similar across Africa, “oil-for-infrastructure contracts, special economic zones, cultural exchanges, ‘win-win’ rhetoric, and claims of supposed domestic non-interference” (Gadzala, 2015c, p. xx). (ii) Africa is a collective international actor (Zondi, Fraser, Lee, Hoste, & Benn, 2011), with shared colonial history, underdevelopment, affinities of anti-conditional development cooperation and at times as Harrison suggests (2010, p. 3) “through assertions of value against imperial derogations”.

15 Some have even questioned the ‘speaking for Africa’ register [(see Zegeye, A., & M. Vambe. 2006. “Knowledge Production and Publishing in Africa.” Development Southern Africa 23 (3): 333–349; and quoting Jacob Carruthers citing (K. Smith, 2009, p. 281) argue that “the revival of African thought is a job for Africans only; that is only Africans can do it. If Europeans do it, it would only mean that they defeated us again” (1996, p. 9)]. I concur with Odoom & Andrews (2017, p. 44) that “arbitrary binaries should not constrain knowledge production” in terms of who should speak, write or produce knowledge about/for Africa.

16 Also, existing representations of relations looks at, for example UK - Africa Trade & Investment Forum; UK-Africa Policy; U.S.A. - Africa Summit; Forum on China-Africa Cooperation, Japan-Africa Forum etc. which bundle Africa.

17 Some argue that since Ethiopia was not colonised (but experienced a short period of occupation from 1935 to 1939), does it make it un-African see Gadzala (2015c).
However, in order to build a strong theoretical argument on African agency in this thesis, I will use the adjective ‘African’ “with a full awareness of the fact that its usage constitutes a major generalisation” (Smith, 2009, p. 271). As such, the application of African agency framework is of empirical reference to Ethiopia’s engagement with the Chinese in the financing and development of Adama wind farms. For that matter, it applies to multiple Ethiopian actors across different spaces. These could be: (i) inter-state actor—African Union Commission (AUC); (ii) state-actor—Ethiopian actors with particular reference to (a) executive branch of the state—head of state (President) and government (Prime Minister); Council of Ministers, Ministries of Water, Irrigation and Electricity (MOWIE); Finance and Economic Cooperation/Development (MOFEC/D); Foreign Affairs (MFA); Environment Forest and Climate Change (MEFCC)\(^\text{18}\); public utilities and enterprises—EEP; EEU; Ethiopia Energy Authority (EEA); Ethiopian Investment Commission (EIC); Ethiopian Shipping and Logistics Services Enterprise (ESLSE); National Planning Commission (NPC); Federal Parliament; Oromia Regional State government and its sub-administrative units; State universities—Addis Ababa University Institute of Technology (AAUIT), Mekelle University (MU), and Adama Science and Technology University (ASTU); (iii) non-state actors –farmers, TPLF-EPRDF ruling party, interests group (Non-Governmental Organisations (NGOs), civil society organisations), workers, affected communities and general members of the public. This allows me to go beyond “methodological nationalism—defined as a tendency to see nation-states as the natural containers for social, political and economic processes in which there is congruence of social, political and economic borders” (Mohan et al., 2014, p. 10).

Second, it is problematic to speak of ‘China\(^\text{19}\)’ or ‘Chinese’ stakeholders as if they are a homogenous, structured, ordered group of actors who conform to the Chinese central government demands and policy direction in their engagements with African countries (Yi-Chong, 2014). The Chinese state cannot be treated as “monolithic, or ‘China Inc.,’ in which everything works in harmony. Despite its executive ability, the Chinese state’s functionality is riddled with competing state agencies, problems of cross-department coordination, and the mismatch between central and local policies” (Su, 2012, p. 504). As suggested, “China is a collection of provinces, autonomous regions and municipalities with myriad strategic ties to African countries” (Shen & Fan, 2014). In particular, Shen and Power’s (2017, p. 678) work on China’s engagements with South Africa shows the influence of Chinese non-state and quasi-state actors operating without a “harmonious strategy directed by a single monolithic state”. They further argue that these non-state and quasi-state actors often pursue “their own

\(^{18}\) Now changed to a Commission and no longer a Ministry as of April 2018

\(^{19}\) The People’s Republic of China.
independent interests and agendas [...] in ways often marked by conflict, inconsistency and incoherence” (Ibid, p. 678).

As is the case with the use of ‘Africa/African’, I argue that the use of ‘China/Chinese’ emanates from the need to develop a representative theoretical argument. Additionally, the justification for using China/Chinese comes from many literary representations, public discourses and policy positions where China may imply the state, non-state and semi-state-based-actors. In order to develop a holistic empirical argument, the use and application of China/Chinese stakeholders/actors in chapters three, five, six, seven and eight, relates to the following actors. (i) Chinese state actors— head of state (President) and government (Prime Minister), State Council, Ministries of Finance, Foreign Affairs (including the embassy in Addis Ababa), Commerce (including the Economic and Commercial Counsellors’ office in Addis Ababa), policy bank (C-EXIM). (ii) State-owned enterprise— Sinohydro but exclusively known as HydroChina Corporation in the Ethiopian context, and, (iii) quasi-state and private-owned enterprise— Xinjiang Goldwind Science and Technology Co. Ltd—hereby referred to as Goldwind[20];—SANY Group, and CGCOC.

1.7 Structure of the thesis
The thesis is divided into eight chapters. Chapter two contextualises and theorises African agency by locating it from two entry points: top-down and bottom-up approaches. A top-down approach is defined as the role and impact of external actors on Africa’s international relations and internal development, while bottom-up implies the role of African actors in shaping and impacting upon the practice of global politics and development trajectories. The chapter proceeds with a discussion of the limitation of applying the Weberian definition of the state to the African state—which inevitably can be convolved and conflated with the failed state narrative. As such, I locate the definition of the African state in the context of broader state-society relations. The chapter also discusses the rise of emerging economies and how their presence revives triangulation and leverage power for African actors. I then discuss the conceptual and analytical considerations of African agency looking at the definitional elements and how power mediates such aspects. The chapter finishes off by elaborating on the aspects of negotiations and modalities of engagement.

Chapter three discusses the methodological imperatives of study. First, the discussions are centred on the epistemological and ontological paradigms of the study. The study adopts critical realism and interpretivism as they help explain how I construct and view what

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constitutes reality or knowledge around Africa (Ethiopia)-China relations. Second, I discuss the methodological framework underpinning the study. This includes process tracing, negotiating fieldwork, data and the methods for data collection and analysis. Third, I discuss rigour and validity and how positionality positively or negatively affected my data collection and analysis. I (de)construct the ‘outsider but insider’ positionality through the process of reflexivity which allowed me to carefully negotiate the politics of knowledge production on Africa-China relations. Contextual mediation of this debate is essential so as to scrutinise and reveal “how Chinese knowledge of Africa and African knowledge of China is produced and assimilated […] [and] how this newer knowledge feeds into government policies, Western discourse and understanding, and attitudes and experiences on the ground” (Strauss & Saavedra, 2009, p. 551). Fourth, the chapter discusses the challenges encountered during the fieldwork and the research ethics. The last section offers a chapter summary.

Chapter four provides the background of the study focusing on Ethiopia’s state-society relations after 1991 when the EPRDF under Meles Zenawi came into power. The chapter begins by tracing the Ethiopian social, political and economic development policy and how such development orientation laid the foundations for Ethiopia-China cooperation. The second part of the chapter discusses the factors which condition Ethiopia’s agential dimensions when engaging with external powers. It is within these determinants that one sees Ethiopia being able to influence the interaction patterns and dynamics with not only China but any other foreign power. The third and final section of the chapter discusses Ethiopia-China relations post 1991.

The fifth chapter is premised on the first sub-question, which explores why Ethiopian and Chinese stakeholders financed and developed Adama wind farms. It proceeds by responding to the drivers of both Ethiopian and Chinese actors in financing and developing the wind farms. In the same section, I also explore why the Ethiopian government at that time decided to build wind farms and not other renewable energy sources. The second part of the chapter examines the motivations for Ethiopian and Chinese actors in financing and developing the two wind farms. The third part of the chapter explores the factors which influenced the Ethiopian government to award the contract to the Chinese. The final section discusses the summary of the chapter.

Chapter six responds to the second sub-question of the study which explores engagement modalities and negotiation processes between and among Ethiopian and Chinese actors in the financing and development of the Adama wind farms. It begins by tracing the engagement modalities at the negotiation tables, followed by tracing the negotiations by looking at the actors involved in the process. The third part of the chapter opens the black boxes through an
interrogation of the project pre-planning, contractual terms and conditions, implementation and management of the projects. The last section of the chapter discusses the empirical parameters of Ethiopian agency.

The seventh chapter addresses the final sub-question of the study which seeks to understand the engagement outcomes and local development impacts of the two wind farms. It underscores how and in what ways the Ethiopian domestic regulatory and governance structures were responsible in mediating the engagement outcomes and development impacts. Chapter eight discusses the thesis’ main findings and offers key contributions, limitations of the study, lessons for policy and directions for future research. The appendix sections contain the interview questions used for the study.
CHAPTER TWO: CONTEXTUALISING AND THEORISING AFRICAN AGENCY

2.0 Introduction
This thesis’ approach to African agency in Africa-China engagement draws from international relations and social theory lenses grounded in policy debates, historical, theoretical and empirical literature. Existing studies on Africa’s international relations predominantly put more emphasis on analysing how external actors’ political, economic, social, military and technological power define and influence the way they interact with Africa. External powers are presented as dominant and being in charge of the deals with Africa. The central argument of this thesis is that African countries’ engagement patterns with external stakeholders, including China, are not entirely conditioned by existing asymmetrical power structures (de Bruijn, van Dijk, & Gewald, 2007). To understand this, it is necessary to empirically locate the areas where African countries innovatively find ways to influence their engagements with external actors. As such, I “treat the commitment to examining agency as an ontological presupposition and thus allow space to investigate empirically the different interpretations and choices made by African actors in any particular context” (Murray-Evans, 2015, p. 26).

The purpose of this chapter is to contextualise and theorise African agency. The first section begins by discussing agency in wider empirical and theoretical literature of Africa’s external engagements. While this literature is “non-exhaustive and more ground needs to be covered” (Brown, 2012, p. 1890), it provides a foundation to frame African agency in the context of Africa-China engagements. The second section analytically defines the African state and locates it within a sociological reading of state-society relations. The third section unpacks African agency in the context of emerging Global South economies such as China, and how they reinvigorate the position of Africa in international relations. In doing so, I seek to understand how changes in the global configuration and distribution of power enable or constrain African actors to exercise agency. This presents an opportunity to move away from material power structure asymmetries to more narrative based, discursive and often ambiguous forms of agency operationalised by African agents to meaningfully, consciously and sometimes unconsciously exert influence. The fourth section discusses the conceptual and analytical considerations of agency which I will use in the later chapters to analyse the empirical case studies. I proceed with a discussion of resources and repertoires of power weaved with interests, ideas, values, preferences and ideology as important variables that influence how actors engage with one another. The final section of the chapter discusses the processes of negotiations and modalities of engagement which are empirical zones where engagements occur.
2.1 Historicising African agency in international relations

Scholarship on Africa’s position and engagements within and beyond the continent have been presented and written in journalistic, comical, musical, film, poetry, theory and policy circles in which many “have focused on Africa and the global system, but fewer have focused on the African element of this relationship” (Stephen Wright, 1999, p. 1). From the late 1950s through to the 70s, many of these perspectives are dominated by African representation and association with marginalisation (Bayart, 2000; Jones, 2005), underdevelopment, dependence and exploitation (Amin, 1976; Rodney, 1972) a rather top-down approach in which Africa is considered being impacted upon by external players in its conduct of international relations. In this period Africa is positioned as an insignificant actor and is hemmed in in international relations (Callaghy & Ravenhill, 1993).

Bayart (1993, 2000) rejects the insignificance and idleness of African actors. He argues that Africans exercised agency and in certain instances colluded and collaborated with colonial administration. Lonsdale and Berman’s (1979, p. 505) research in colonial Kenya shows that the colonial state control was “mitigated by a rough compatibility between the needs of the settler capital and the patronage exercised by African chiefs within a peasant sector which was expanded to solve the colonial administration needs for peace and revenue”. Bayart further claims that “Africans have been active agents in the mise en dépendance of their societies, sometimes opposing it and at other times joining it, in such a way that it became an anachronism to reduce such home-grown strategies to formulas of nationalism or indeed of collaboration” (2000, p. 219). While Bayart’s interpretation of African agency is controversial, it underscores the agential dimensions of African actors whereby African chiefs found ways to strike a balance with the colonial administration and their subjects in ways often detrimental to their people’s survival. As such, African chiefs innovatively find ways of responding to European ‘colonial’ policy and at the same time, Europeans were also forced to act in relation to African chiefs demands (Gadzala, 2015c). The relationship brings to the fore how class influenced engagement patterns between the colonial government and the natives.

The cold war (1945-1989) and post-cold war (1991 to present) representation of Africa’s international relations has likewise been portrayed in somewhat contrasting narratives with regards to exercising of agency by African actors. On the one hand, we see a representation of African liberation wars to dismantle the colonial control, and on the other hand, we see the struggle for survival for African states during the superpower rivalry (Clapham, 1996). It is significant to highlight that the liberation movements were not States themselves, but private, non-state-based-actors who engaged in collaboration with external actors (within and outside the borders) to access military aid and training. Either way, Africans’ ability to organise political movements in resisting and fighting for political independence demonstrated assertiveness
and astuteness to exercise agency (Cooper, 1994). The fact that independent African states decided to form a continental organisation—the Organisation of African Unity (OAU) to facilitate and spearhead the African decolonisation project shows the collective agency of African actors. Also, post-colonial African states found themselves under a challenging moment of siding either with the communist Union of Soviet Socialist Republics (USSR) or capitalist Western Europe and North America. Instead, a majority of the countries joined the Non-Aligned Movement (NAM)—an organisation that pledged neutrality. The OAU and NAM were thus used as institutions for the deployment of collective agency.

In the 1980s, the World Bank (WB) and International Monetary Fund (IMF)-led structural adjustment programs (SAPs) saw studies depicting a representation of how the international financial institutions and other donor agencies impacted on post-colonial African state governance systems (Harrison, 2004). The SAPs period saw the introduction and recommendation of market liberalisation and democratisation of the African state as pre-conditions for accessing credit lines to ease the economic and political crisis Africa found itself in (Williams, 2007; Young, 2004). The reforms heavily impacted on African state structures and in some instances its ability to fully retain control. Such reforms resultantly ushered in new private, transnational, non-state-based actors (for example, non-governmental organisations and civil society organisations) which have until today partially shaped how Africa conducts its international relations. It is crucial nonetheless to mention that, although these aid agencies and international financial institutions facilitated and imposed the neoliberal reform agenda on post-colonial African states (Franz & Obare, 2011), some Africans exercised agency by carefully negotiating, contesting and even rejecting some of the proposals during and after the reform period (Fisher, 2013; Fraser & Whitfield, 2008).

While several texts have attempted to unpack Africa’s international relations from a top-down approach some have adopted a bottom-up approach—a reverse view in which Africa is considered to impact on its external counterparts’ conduct of their international relations (see Brown & Harman, 2013; Brown, 2012; Clapham, 1996; Jones, 2005; Smith, 2009; Zondi et al., 2011). These studies have focused on both the theoretical logic as well as the empirical exercise of African agency. Within the context of the theoretical debates on Africa in international relations, some have argued that Africa has suffered a ‘sin of omission’, or lack of ‘fit’ regarding what constitutes the disciplinary, theoretical basis and the ‘African realities’ (Harman & Brown, 2013, p. 71). For Odoom and Andrews rather than looking at the ‘lack of fit’ for Africa, it is the “inadequacy of the major analytical constructs provided by established international relations (IR) theory in capturing and explaining shifting reality in Africa” (2017, p. 42). As such, Africa faces “representational deficiency” (Ibid, p.43) and yet yields rich case
studies and experience in which Africa is far from being a peripheral actor, but a strong agent of knowledge production for both theoretical and empirical exercises.

The inadequacy of existing IR theory to understand Africa’s international relations, and perhaps its exercise of agency hails from the disciplinary narrowness and domination of western-centric views (Cornelissen, Cheru, & Shaw, 2012; Smith, 2009). For others, major IR theories, namely Realism, Liberalism and Constructivism, rest on shallow Eurocentric conception of statehood, sovereignty (Clapham, 1996; Dunn & Shaw, 2001), “political processes, civil society, rationalities” (Harman & Brown, 2013, p. 71) and “the international/domestic dichotomy” (Dunn, 2001, p. 4). For some, the problem lies not in the entire domain but certain constructs and strands of the IR theory. For instance, Brown rejects some of the criticisms on all traditional IR theory arguing that the target of these criticisms is neo-realism. He argues that critics misunderstand anarchy and the state-centered approach as a unit of analysis (2006, p. 119)—what Singer (1961) termed the level of analysis problem in international relations. While I do not attempt to mediate this debate, my assumption is that existing theoretical frameworks influence the epistemological and methodological aspects of studying international relations. This consequently leads to the ‘absence’ and the ‘othering’ (Capan, 2017) of (African) countries or geographies that do not fit the Weberian sense of the State (Clapham, 1996), which if not carefully analysed, links to the failed states thesis. Do African states present unique characteristics that are not in some sense explainable by existing IR theoretical scholarship or is it simply a sin of omission, or simply “the empirical complexity of the [African] continent’s international relations” (Lemke, 2003, p. 85)? Below, I revisit the African state-society relations thesis as an effort to understand how African agents are socially produced, constituted and embedded within the socio-cultural and political spaces (whether domestic/international) they inhabit. This helps to systematise and contextualise how African agents and their practice of international relations have previously been studied. It also further provides lenses to study and understand African agency of Africa’s relations with emerging powers such as China.

2.1.1 African-state-society relations and agency
Before we delve deeper into discussing African-state-society relations and their implications for the exercise of African agency it is imperative to revisit the definition of the African state. Several definitions have been used. For some, the African state is defined by its characteristics. Such characteristics relate to a state having a territory, sovereignty, population and institutions of rules. Some go further to add that it should also have

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21 The customary definition of the state, as an organization that claims a monopoly within a fixed territory over the legitimate use of violence.
governmental apparatus and a form and sense of authority. While these characteristics are important for defining and probably understanding the African state, for Doornbos (1990, p. 180), the African state is to be understood with the following explanations:

(i) Its post-colonial status, with all the implications this has for the evolution of ‘civil society’,
(ii) its a priori problematic relationship as regards its territorial jurisdiction,
(iii) its heavy involvement in a restricted resource base (usually primarily agricultural),
(iv) its still relatively undifferentiated yet ethnically heterogeneous social infrastructure,
(v) its salient processes of centralisation and consolidation of power by new ruling classes, and,
(vi) Its pervasive external context and dependency.

Doornbos (1990) further denotes that these explanations are somewhat reflections of the African state formation which is wrought with dynamic and non-linear processes. These processes include among others, the construction and deconstruction of social, political, economic, cultural and ideological structures. This results in the “redefinition of the position of various social and political formations, groups, and organisational networks within the wider state” (Doornbos, 1990, p. 181). These continuous changes of the structures within the wider context of the state consequently and dynamically define the state-society relations. State-society relations being the state’s “linkages with constituent social units and categories, and the extent of autonomy it has left them” (Doornbos, 1990, p. 181).

The second definition of the African state is based on the relationship between the state and society (Azarya, 1988). As Kawabata (2006, p. 1) citing Azarya (1988) claim that the (African) state should be seen as an “organisation within society, it is distinguished from the myriad of other organisations in seeking predominance over them and in aiming to institute binding rules regarding activities of other organisations”. Proponents of this thinking such as Migdal (2001) have furthered Azarya’s concept of state-society relationship, to ‘state-in-society’ in which the state becomes socially embedded in the society. The central argument of this thesis is that states are not external and immune to the social forces (Hagmann & Peclard, 2010) much as they are not immune to external influence.

The state-society approach to defining the African state creates an avenue to unpack and understand the structures which have allowed African states to create and enable their forms of accountability, governance, and relationships with non-state actors. The state-society approach contextualises the African state formation and definition as a historical process

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which is not only formal, powerful and autonomous collection of actors, rules, and norms, but also discursive representation. The discursive genres create representation and give meaning to the state which allows one to distinguish between “the power everybody has and the power only some people have” (Olivier de Sardan, 2006:186 cited in Hagmann & Peclard, 2010, p. 545)—what Bierschenk and Olivier de Sardan (1997, p. 441) terms ‘power poles’. Hagmann and Peclard (2010) argue that the African state should be seen as a negotiated entity where various actors—both state and non-state cooperate, collaborate and at times informally compete for influence in making and unmaking the state. This leads to an open and broad understanding of the state where it becomes essential to “break down the undifferentiated concepts of the state—and also of society—to understand how different elements each pull in different directions, leading to unanticipated patterns of domination and transformation” (Migdal, 1994, p. 8).

Informal and formal social groups/institutions play an essential role in forming and defining the African state (Hagmann & Peclard, 2010). The formalisation/informalisation of certain social groups or institutions contribute to development and redevelopment of the state’s ideological position, goals, ideas, values, interests and preferences. The state will always be in the process of constant change responding to various social groups or institutions’ demands to remain relevant and legitimate. These state-society interactions occur at multiple fronts, including among others—the state level (state-based actors’ interactions), sub-state level (state-actors at the lower levels), interest/pressure groups (civil society, NGOs) and also respond to changes in the international system. The constant interactions between these actors through contestation, conflict, competition, and cooperation, subsequently change the state’s aims, preferences, ideology, values, interests and ideas (Hagmann & Peclard, 2010). This also affects the structural (political, economic, social, ideology, cultural, history) base of the state, and bears implications on how the external actors design interaction strategies and rationalities with the state. I believe that it is in the interactions between the state and the social forces (class, politicians and ethnic groups) where interests, ideas, values, preferences and agendas, unquestionably emanate. The deconstruction of state-society relations is crucial and sheds light on the drivers and motivations of African countries to engage the Chinese.

So how do the state-society relations affect African agency? African agents’ agency is dynamic in space and time and is shaped by domestic and international variables (Brown & Harman, 2013). This suggests what Putnam coined the logic of two-level games in which “central decision-makers strive to reconcile domestic and international imperatives simultaneously” (1988, p. 460). What we can draw from this is that agents are therefore socially produced by the social structures that emanate from state-society relations. They then become authorised representatives to act on behalf of either the state (formal institutions) or non-state actors.
(formal and informal institutions) (Williams, 2013). Borrowing from IR theory, Wendt notably argues that (1987, pp. 337–338) “human beings and their organisations are purposeful actors whose actions help reproduce or transform the society in which they live; and society is made up of social relationships which structure the interactions between these purposeful actors”. For that matter, agents again become “inseparable from social structures in the sense that their action is possible only in virtue of those structures, and social structures cannot have causal significance except insofar as they are instantiated by agents. Social action, then, is ‘co-determined’ by the properties of both agents and social structures” (Wendt, 1987, p. 365). Understanding these is fundamental as it sheds light on how the African state and non-state actors, whether formal or informal, exercise agency and the potential implications this may have when engaging the Chinese. The next section explores how the rise of Global South powers impact on African agency.

2.1.2 African agency in the era of multilateralism with southern characteristics

The rise of Global South countries and multilateral platforms such as India, Brazil and South Africa (IBSA), Brazil, South Africa, India and China (BASIC), and BRICS has optimistically ushered in a new era of hope for African countries’ conduct and practice of international relations. These emerging powers are “acutely conscious of their own development challenges and, correspondingly, those facing Africa” (Alden, 2010, p. 12). Emerging powers is “a phrase coined to describe a new group of states which has through a combination of economic prowess, diplomatic acumen and military might managed to move away from developing country status to challenge the dominance of traditional mainly Western powers” (Alden, 2010, p. 12). These countries (particularly India, Brazil and China) have joined existing or created new and parallel platforms for developing countries not having to go through (Western) intermediaries (i.e. former colonial countries, international financial institutions, donor agencies) to access funding, negotiate deals or contribute towards international relations.

While a majority of African countries celebrated the inclusion of South Africa in BRICS and potential elevation of the African continent on the platform of global politics (Tella, 2017), some critics caution the advent of new imperial powers using Southern solidarity as an anthem of neo-colonialism (Bond & García, 2015). As such, the rise of BRICS, and China, in particular, is seen to represent neoliberalism with southern characteristics (Prashad, 2013) since they are driven by their domestic hunger for natural resources and markets (Shaw, 2015). Several mechanisms have been deployed to achieve their aims including the use of loans, grants, and resource-for-infrastructure deals (Alves, 2013; Corkin, 2015), development financing, foreign direct investment (although very small at the moment) and trade (Zhang & Smith, 2017). For Bond & Garcia (2015), the emerging powers represent an era of new exploitation making them
not different from the traditional powers. Making use of Chinese national oil companies operating in Ghana, Mohan suggests that “the Chinese firms are no different from other large multinationals operating in Africa” (2015b, p. 6).

Meanwhile, the rise of the emerging powers has resulted in shifts in the conceptions of geopolitics where new multipolar world order is amplifying Africa’s position in international relations: both as a contributor to theory (knowledge producer) as well as a case study for empirical reference (Harman & Brown, 2013). Specifically, the rise of China, results in “a shifting terrain of international relations in which Africa is at the core, with the potential opportunity to make aggressive use […] of China to exert greater agency in the international system” (Harman & Brown, 2013, p. 80). So, in what ways does the rise of emerging powers contribute to the reinvigoration of African agency in international politics? There are three ways in which I believe African agency is enhanced or jeopardised. First, Africa will become a ‘site’ of great powers’ geopolitical and geo-economics’ contestation, cooperation, competition and collaboration (Gil, Manrique, 2015; Sun & Olin-Ammentrop, 2014; Thrall, 2015; Ursu & van den Berg, 2018). Several commentaries suggest that the rise of China in particular and its increased engagement with African countries is contributing to changes in the international lending structures (Bräutigam, 2010; Moss & Rose, 2006). These commentaries purview of lending denotes that the Western countries and donor agencies attach conditions on political indicators such as democracy, freedom, openness, transparency and human rights as lending yardsticks (Lombard, 2006).

However, it will be a misconception to suggest that the Chinese do not condition their development finance. The Chinese attach economic conditions by prescribing the use of Chinese companies, procurement of Chinese technology and services as a determinant to have access to Chinese finances. This is conditionality, albeit different from governance-based lending conditions of the West (Ng, 2012). As Lombard postulates “the Angolan government baulked at an IMF mandate for transparency in its oil revenue accounting, [and] the C-EXIM offered an interest-free loan … [without] … accounting required” (2006, p. 1). What emerges from this is that Africa becomes the “space in which these relationships are played out” (Harman & Brown, 2013, p. 79) and by so doing gives room for African countries to increase their leverage on and bargaining power when negotiating aid, development finance, investment or trade deals with Western countries and agencies (Ibid, p.8).

Second, since Africa is a ‘site’ of/for contestation, competition and collaboration between great powers, it is equally a ground for testing (foreign) policy ideas for emerging powers before applying them globally (Harman & Brown, 2013). For example, China has been using Africa
as a testing and operationalisation ground for its Five Principles of Peaceful Coexistence\textsuperscript{24} approach in which non-interference in internal affairs has been the central pillar to its foreign policy identity. As averred “even though the five principles were initially raised as a policy towards the newly independent states in Africa […] China soon realised the universal significance of these principles and actively expanded them […] finally making it a fundamental principle of China in developing its foreign relations” (Zhengqing & Xiaojin, 2015, p. 2). Africa has therefore provided China with a learning platform, a ‘laboratory’ as Shinn (2016) suggests, for its foreign policy identity transformation. This has been the case specifically in China’s contradictory position in Sudan/South Sudan (Large, 2008). Likewise, Brazil has been using Africa as a testing ground for its More Food Program\textsuperscript{25} (in the Brazilian context) now transformed to More Food International (in the African context) agrarian policy position (Cabral, Favaretto, Mukwera, & Amanor, 2016; Scoones, Amanor, Favaretto, & Qi, 2016; Shankland & Gonçalves, 2016). What this tells us is that “Africa is a key space in which a wide range of these new policy ideas are applied, replicated and developed” and therefore “invert the idea that the continent is the recipient rather than the generator of international policy” (Harman & Brown, 2013, pp. 83–84).

Third and finally, the rise of emerging powers strengthens and solidifies the significance of Africa as an important ally in the multilateral institutions’ voting game of thrones. The African Group is one of the largest voting blocs in UN and World Trade Organisation (WTO), and for that, the rising powers strive to co-opt Africa into their negotiating position. Assuming Brazil, South Africa, India and China on the one hand, and the European Union and the USA on the other hand, battle out for decisions and policy direction in UN and its agencies, and the WTO, having Africa on your side guarantees you to victory. Africa’s significance is immense especially on climate change, trade, and UN reform negotiations (see Hurt, 2011; Lee, 2013; Zondi, 2013). It nonetheless risks becoming a ‘pawn’ between emerging powers and western countries contestations in multilateral platforms (Brown & Harman, 2013). For example, in the case of climate change negotiations, China used Africa to gain numbers for voting to block binding limits on greenhouse gas emissions resolution which was not favourable to the Chinese. Brown and Harman lament that “China’s success in getting Africa’s numbers lined up behind a negotiating stance, which cannot deliver the necessary changes needed to protect Africa from the worst effects of climate change may leave a more damaging legacy” (Brown &

\textsuperscript{24} As portrayed by the People’s Republic of China’s Ministry of Foreign Affairs: http://www.fmprc.gov.cn/mfa_eng/ziliao_665539/3602_665543/3604_665547/118053.shtml the Five Principles of Peaceful Coexistence are: (i) mutual respect for each other's territorial integrity and sovereignty (ii) mutual non-aggression, (iii) non-interference in each other's internal affairs, (iv) equality and mutual benefit (changed to equality and mutual benefit in the Sino-Indian joint Statement and Sino-Burmese Joint Statement), and (v) peaceful co-existence.

\textsuperscript{25} An agrarian policy position in which subsidised credit is offered to family farmers to support agricultural modernisation and enhance productivity.
While I acknowledge the likelihood that China might benefit from the African votes and yet fail to protect Africa (from climate change induced impacts, unfair trade deals, lending practices), this may equally provide an opportunity for Africa to shape the deliberations and perhaps the voting powers in multilateral organisations (Dietz, Havnevik, Kaag, & Oestigaard, 2011). By so doing, this will reinvigorate African agency in international norm setting and policy shaping.

Several emerging powers have contributed immensely to the reconfiguration of Africa’s international relations; however, China stands out, and that warrants attention. I will focus on understanding African agency in the context of Africa-China engagements because: (i) since 2009, China became Africa’s largest trading partner (see Eom, Hwang, Atkins, Chen, & Zhou, 2017); (ii) China is presently the largest builder of Africa’s infrastructure (Pairault, 2018); (iii) China is one of the most significant development finance providers for Africa’s infrastructure development projects (Brautigam & Hwang, 2016; Pairault, 2018); and, (iv) has diplomatic representations with almost all African countries except for Eswatini which recognises Taiwan (Strong, 2017). These factors allow China to command a colossal influence in African states’ internal as well as external relations. At the same time, due to the complexity and embeddedness of the engagements between Africa and China, I argue that African states and non-state-based-actors strongly influence how the engagements play out. However, this has not been acknowledged to be the case up to now, as African agents have been presented as less capable of exercising agency when engaging with China. This provides a gap which this study attempts to fill. The next section discusses the analytical and conceptual frame of agency.

2.2 Agency: an analytical consideration
In the context of Africa-China engagements, various African agents (whether state or non-state actors) from various institutions (whether formal or informal) play essential roles in structuring and influencing the engagement patterns and dynamics (see appendix 2.1). From an IR perspective, several theoretical domains provide insights on how I can theorise African agency, building mainly from already existing work on agency in international relations. Broadly, three strands of IR theory provide the point of departure. These theories are realism, constructivism and institutionalism. They help to (de)construct and offer insights on the differentiated nature of African agents’ exercise of agency when engaging the Chinese. Given the ‘rainbow’ (Alden, 2013) nature of the theoretical basis of studying and analysing Africa-China engagements, I first turn to realism—which calls for a state-centric approach to the study of inter-state engagements. Here the main theoretical arguments relate to the centrality
of the state as the principal actor in international relations. Given the anarchical nature of world politics, the theory presupposes that states engage with other states only if and when there are strategic national interest to be gained. The approach views states as being self-serving interest-driven actors—a potential avenue by which we can understand why Africa has increased its engagement with China over the last two decades. This approach is useful because the state remains a crucial variable of analysis in this study—in the sense of Ethiopia (state) and China (state). Nonetheless, given the materiality of power assumptions of this approach seen through the ‘hard power’ differences between Africa and China, it reproduces the very same representation I am challenging in this study where China is considered a hegemon, trivialising Africa. Additionally, its state-centric approach though useful here undermines the possibilities of non-state actors’ invaluable influence in agenda shaping and preference setting in international engagements. Thus, it leads to an insufficiency of realism to adequately provide analytical lenses to understand Africa-China engagements holistically.

Since agenda shaping, preference setting, ideas, interests and values are subjective ‘social constructs’, the constructivism approach is necessary to fully grasp Africa-China engagements. Constructivism as an IR theoretical approach focuses on the social analysis of world politics based on human interactions governed and shaped by ideational and not only material factors (Finnemore & Sikkink, 2001; Wendt, 1992). The social constructs result in the creation of shared beliefs which in turn “construct the interests and identities of purposive actors” (Finnemore & Sikkink, 2001, p. 398). This leads to the creation of state identities which “fundamentally shape state preferences and actions” (Finnemore & Sikkink, 2001, p. 398). In the context of Africa-China engagements, quite often the rhetoric is ‘win-win situation’, ‘solidarity’, ‘mutuality’, ‘non-interference’, ‘harmonious development’ and ‘respect for sovereignty’ as ideational constructs which influence and shape the value and belief systems patterns in Africa-China engagements. Although constructivism as an approach is essential and is used in this study, it is arguably too normative as it again neglects these ideational power inequalities. Given the diversity and plurality of ideational factors, one wonders to what extent, indeed, in the real-world events, this approach genuinely reflects engagement patterns. This again calls for the need to question further the circumstances under which the so-called ‘non-material’ factors emerge. These ideational factors are formulated by institutions (whether formal or informal) to serve specific interests. A focus on institutionalism is also important to understand the patterns and dynamics of Africa-China engagements.

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26 This could potentially explain why China prioritises sovereignty and non-interference as key principles governing its conduct of international relations with Africa. In contrast to this, I argue that economic and other forms of cooperation have resultant implications in the political (sovereignty) and economic makeup of the host country, reflecting a form of ‘interference by other means’ (Ziso, 2018, p. 177).
Institutions are vital structures which determine the African agential capacity in engaging with external stakeholders. Institutions harbour memories, learning and bureaucratic ecosystem which influence African agents' behavioural and decision-making patterns and dynamics when engaging China. As espoused by Scott (2001, p. 49) an institution relates to “multi-faceted, durable, social structures, made up of symbolic elements, social activities, and material resources that enable or impose limitations on the scope for the human agency by creating legal, moral and cultural boundaries”. Institutions, therefore, represent an arrangement of de facto and de jure rules and incentives that define human behaviour. This implies that agents are enabled or constrained by institutions, whether formal or informal which provide them with mechanisms, scripts, options, and alternatives regarding choice and decision making, solely aimed at reducing uncertainty when engaging with other actors. Although institutions define and confine human behaviour, Hudson & Leftwich (2014, p. 72) postulate that institutions can also be “shaped, maintained or undermined by human agents”. Specifically, this allows agents to act and behave in confined and calculated positions in order to attain “better social outcomes” (Hall & Taylor, 1996, p. 12).

Institutional forms and procedures in any setting as averred by a sociological reading of the institutional theory suggest a culturally oriented practice which is “assimilated into organisations, not necessarily to enhance their formal means-ends efficiency, but as a result of the kind of processes associated with the transmission of cultural practices” (Hall & Taylor, 1996, p. 14). Therefore, bureaucratic practices of the institutions in question are a mere extension of cultural practices, norms and forms. This approach becomes useful in the study as it portrays institution as “not just formal rules, procedures or norms, but the symbol systems, cognitive scripts, and moral templates that provide the ‘frames of meaning’ guiding human action” (Hall & Taylor, 1996, p. 14). Although the approach is adopted in the study and theoretically shows how institutions have influence “over policy and political action” (Amenta & Ramsey, 2010, p. 17), it nevertheless assumes that human action in institutions is based on rationalism. This is problematic especially in the context of Africa-China engagements where African agents may not always engage with China entirely based on the script. There is room for uncertainty which suggests adoption and making of decisions based at times on convenience rather than rationality.

Having discussed the three IR theoretical strands which this study draws from, concerning African agency in Africa-China engagements, I propose a hybrid theoretical position which borrows from all the three approaches discussed above. This schematic hybrid theoretical

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position calls for the need to return the focus to the state\textsuperscript{28} (Taylor, 2010; Tull, 2006), but at the same time break down the components which constitute it (Migdal, 2001) and factoring in semi-state, non-state, individuals, transnational actors, market factors (transnational and domestic) (Shen & Power, 2017), society, institutions (formal or informal) as important variables conditioning African agency in Africa-China engagements. Although I bring back the state, I still consider that relations between Africa and China are in the process of transformation and becoming more complex. New forms of political and economic interdependences are emerging calling for the “need to move beyond statist, elite dialogues” (Mohan & Lampert, 2013, p. 100). African agents, therefore, are representations of various institutional structures which cooperate as collective agents or individually. For these agents to be accepted, they should have some form of representational legitimacy from the structures that accords them such status.

Is or can the state be equated to a person, an agent in international relations? This is perhaps one of the long-existing academic debate\textsuperscript{29} in international relations which I do not engage with here because of space and time. However, I selectively and carefully develop an analytical framework which considers the state as an agent—state agency. For Wendt (1992), a state is a person who has the power to act on behalf of and has the power to enable or constrain choice and decision making. Wendt further claims that as a person has interests, is goal oriented, has fears and has values, so does a state (1992, p. 397). Wight categorically rejects Wendt’s view and instead suggest the state is an agent only within the basis of “institutional structures constructed by human beings” (Wight, 1999, p. 128). He further argues that states can have agency, but without necessarily analogising it with a person (Wight, 2004, p. 273). In the context of Africa-China engagements, agents whether states, state-based actors, institutions, civil societies or individuals exact two exigencies: (i) capacity to strategically and consciously exert influence (power), and (ii) acting strategically and consciously on behalf of something (Buzan, 1993, p. 103). This reading is critical in this study and provides an ontological base to conceptualise agency. However, Wight (2004, p. 274) criticises Buzan arguing that the view fails to account for the “agents’ injection of meaning and intentionality into action”. Instead, Wight proposes a three-dimensional view of agency in international relations. As noted by Brown (2012, p. 1895) Wight reconsiders agency as, firstly embodied intentionality, accountability and personal freedom of action where agent’s social

\textsuperscript{28} “Putting the state in its place in this way does not exclude (and, indeed, presupposes) specifically state-engendered and state-mediated processes; but it does require that these be considered in their broader social context and that their effects are related to the strategic choices and conduct of particular actors within and beyond the state” extracted from Jessop, B. 2004. “Multilevel Governance and Multi-level Metagovernance. Change in the EU as Integral Moments in the Transformation and Reorientation of Contemporary Statehood”, in (ed.) Bache, I & Flinders, M. Multi-level Governance. Oxford: Oxford University Press, pp 49-74.

action is based on a self-conscious strategy to achieve intended outcomes. This dimension proposes an individual characterisation of agency and that behaviour and choice in decision making are based on a conscious strategy to achieve intended outcomes. The second dimension considers that choices and decisions of actors are embedded in the socio-cultural context they operate. As such, actors are always ‘agents of something’ in which they are cognizant of structural determinism but always undertake social action encumbered by social forces, making them naturally embedded actors. The third dimension conceptualises agency as a process of choice, and decision-making emanating from attributes of positioned practises (Wight, 1999, 2004, 2006) what Emirbayer & Mische (1998) terms routini\-sed practises. What I read from Wight’s tripartite conception of agency is that it is risky to attempt to separate these agencies from their socio-cultural context they operate as they are co-constituted and are intrinsically connected to these environments.

This suggests a “complex dialectical interplay” (de Bruijn et al., 2007, p. 10) where agents “are neither simply free individuals, nor script-defined role performance, but both roles and subjectivity shaped in extent and content by, and operating within, a specific social context” (Brown, 2012, p. 1895). Although Wight’s theoretical basis of agency and its presuppositions are important for this study, it downplays, as suggested by Mohan and Lampert, the role of agents who are situated and embedded in “wider capitalist relations” and the conditioning effect of transitional capital (2013, p. 96). For Brown (2012, p. 1897), Wight’s framework “does not substantively settle key analytical issues such as the relative balance between, say, personal attributes, domestic, political pressures and external system-level constraints”. Brown (2012) proposes four-dimensional parameters of agency (see appendix 2.1) on Africa’s practice of international relations. The first dimension is the intergovernmental agency which is collective and multilateral in orientation. The second dimension relates to the state agency and is executed by state actors. The third dimension is the agency of state-based actors who undertake the implementation and operationalisation of agreed declarations, memorandum of understandings through the invocation of the state’s regulatory and administrative systems. The state-based actors arguably interact with external agencies and organisations, in line with the state’s national interests. The final dimension is ‘non-state actors’-based agency (see section 2.2.2).

The inadequacy of the IR informed conceptualisation of agency is that it fails to capture the behavioural and decision-making aspects of the agents who are involved in these interactions. To capture these, I turn to the social theory of agency. While one intuitively knows what agency is, it is notoriously difficult and complex to define. Following Hay (2002:94-95) cited in (Hudson & Leftwich, 2014, p. 73) I define agency in its broadest sense as:
“The ability or capacity of an actor to act consciously and, in doing so, to attempt to realise his or her intentions [...]. In particular, it implies a sense of free will, choice or autonomy – that the actor could have behaved differently and that this choice between potential courses of action was, or at least could have been, subject to the actor’s conscious deliberation”.

This definition presents agency as the possession of causal power. However, possession of causal power is constrained or enabled by structure. Following on Hay (2002: 94), I define structure as:

“the setting in which social, political and economic events occur and acquire meaning […] the ordered nature of social and political relations to the fact that political institutions, practices, routines and conventions appear to exhibit some sort of regularity over time”.

Structure thus encompasses different forms, determinants and sources of power, whether formal or informal, that shape its assertion or distribution. These can be “economic structures” (systems of ownership, production, exchange and distribution; the sectoral composition, and the division of labour), “political structures” (formal and informal forms of power over decision making), “social structures” (class, race, gender, history, culture and religion), “ideological structures” (ideas, beliefs, norms and values) and “institutional structures” which shape and constrain the relations and activities of those who are participants in it (Hay, 2002, p.94). The debate about the primacy of agency or structure remains ongoing, although Giddens’ (1984) structuration theory has attempted to address it. Giddens argues that we cannot separate structure from agency as the two components are co-constituted: agents enable the creation of structure, at the same time structures constrain and enable agents to recreate structure.

Since an agent cannot be separated from the social world and neither should one make a mistake of assuming that human action and behaviour is “patterned in particular ways” devoid of determinants (Wight, 2004:280), it is necessary to capture this framework sociologically. Emirbayer and Mische (1998) chordal triad interpretation of agency is instructive here. By chordal triad, the duo avers that agents have firstly, an iterational element. This means agents can selectively activate “past patterns of thought and action” which over time gives them “stability and order […] to decode, predict and decide” course of action in situations they find themselves (Emirbayer & Mische, 1998, p. 971). History and memory condition the action of the present through a constant conscious and unconscious habitual processes. Consequently, the iterational or repetitive dimension is, therefore “manifested in actors’ abilities to recall, to select, and to appropriately apply the more or less tacit and taken-for-granted schemas of
action that they have developed through past interactions” (Emirbayer & Mische, 1998, p. 975).

The second dimension of agency is the projective element. Agents are futuristic in orientation in which social action and imagination are innovatively “reconfigured […] to actors’ hopes, fears and desires” (Emirbayer & Mische, 1998, p. 971). This does not limit the agents to be projective purely based on routinised practices but also introduces possibilities of new inventive thoughts and action. It is therefore within this projective element that agents can set for themselves goals and plans. Goal and plan setting are not however voluntary nor instrumental (Emirbayer & Mische, 1998) but socially embedded in the temporal-relational context—where conflict and cooperation are iteratively (re)negotiated between and among the social forces. Third and finally, agents have a practical-evaluative element. As proposed by Emirbayer and Mische (1998, p.971), agents can deliberate and make a judgement among possible “alternative trajectories of action in response to emerging demands, dilemmas and ambiguities”. This third dimension is highly contextual and is derived from specific historical and cultural experiences which allow agents to self-evaluate through processes of context identification, characterisation (description), deliberation (assessment), and action (execution of decision) (Emirbayer & Mische, 1998, pp. 998–1000).

Analytically framing the above discussion, this thesis underlines that agents are: (i) active respondents within their nested and overlapping systems, (ii) able to hold their viewpoints simultaneously to others, and (iii) have self-reflexive consciousness (Emirbayer & Mische, 1998, p. 969; Jessop, 1996, p. 125). In this thesis, I therefore conceptually and analytically consider agents as actors who, whether in their official or non-official capacities, undertake social action in specific contexts aimed at maximising gains and safeguarding interests in their engagement with other actors. Such actions could be as a collective or as an individual. The process of undertaking social action is consequentially operationalised practically through collaboration, passivity and in some cases, resistance.

2.2.1 State and state-based-agents

The state as the agent emanates from ‘agents’ being “centres of power” capable of bringing change including to themselves (Bhaskar, 1975, p.109 cited in Wight, 1999). It is correct to assume that the state as the agent acts within the basis of an “institutional ensemble” (Marx, 1966, p. 100) where the agents’ activities become states’ activities in those specific contexts. As such, it is through the state’s representational authority and legitimacy bestowed upon the state agents, that they can act on behalf of something. As recognised by Jessop (1990, p. 367) that “it is not the state which acts, it is always specific sets of politicians and state officials located in specific parts of the state system”. This then builds on the argument presented earlier where state-society relations are critical in defining and conditioning how state agents
behave. If there is no representational legitimacy in the form of collective identity, collective action, and representational authority (Williams, 2013, pp. 136–140) which is wielded from the state-society relations, then the ‘state’, as well as the ‘agency’ argument, loses relevance. It is therefore essential to contextualise the African state as a unit of analysis which facilitates through institutional powers, the exercise of agency by agents (Wight, 2004, p. 279) in Africa-China relations.

Brown emphasises that the state as the agent is an essential unit of analysis specifically from an international relations perspective (2006, 2011, 2012) as it wields sovereignty (2013). It is always the state (for example, Ethiopia) agents (President, Minister, Diplomat, Bureaucrat) that undertake decisions when engaging with external actors. The state agents, be it at the executive or bureaucratic level (Soulé-Kohndou, 2016), influence decision making, legally and representationally to define “and mediate the external expression of state preferences” (Brown, 2012, p. 1892). It is, therefore, through the state’s creation of institutions whereby an individual or a collective is accorded with the responsibility to broker, coordinate and negotiate deals with external and internal actors. Institutions through their agents become coercive apparatus of the state (Williams, 2013, p. 134) to regulate and administer frameworks in line with and conforming to the state interests, values, beliefs and identity.

2.2.2 Non-state-actors as agents
Aside from the state; there are also private, individuals and transnational agents (formal or informal) capable of directly or indirectly influencing engagement patterns between, within and beyond states’ confined territorial jurisdiction (Jessop, 2010, 2013; Weiss, Seyle & Coolidge, 2013). Actors such as celebrities, opposition politicians, civil society and community-based organisations, local and international enterprises, professional associations (farmers), self-help organisations, local or international non-governmental organisations, and religious entities use various resources and repertoires to achieve their intended outcomes. The only distinction between the non-state-agents and the state agents is sovereignty which “confers on state agents an ability to recognise or not, give legitimacy or not, to other actors” (Brown, 2011, p. 13). Whereas sovereignty matters for legitimacy purposes in international relations, non-state-agents interact with state and other non-state actors making them potentially equally important in defining, conditioning and even mediating patterns, processes and modalities of engagement between Africa and China. As such, Chinese capital in Africa enters already existing social life-worlds be it at the individual, community, regional or national level. As statehood is negotiated (Hagmann & Peclard, 2010) by various agents (formal/informal; collective/individuals) within the broader state-society relations (Migdal, 1994, 2001), transnational capital (for example Chinese development finance) likewise is not immune to these conditioning effects. Non-state-agents, therefore, play an important role in conditioning
the engagement patterns as they influence and are influenced by the state in what Bob Jessop terms strategic-relational approach—“a heuristic concept of strategic selectivity” (Jessop, 2004, p. 2). The:

“state apparatus may privilege some [non-state] actors, some identities, some strategies [...] and some actions over others; and the ways, [...] in which political actors (individual and/or collective) take account of this differential privileging by engaging in ‘strategic-context’ [...] when choosing a course of action” (Jessop, 2010, p. 8).

The state agents’ strategic selectivity leads non-state agents to design and use their means and tactics by deploying a variety of resources and repertoires (Hagmann & Peclard, 2010) to ensure that they become a significant force to be reckoned with. Importantly, it is not only the non-state agents that design tactics to interact with the state. The process is dualistic and co-constituted. The state nonetheless tends to have more resources to successfully implement such tactics compared to non-state actors.

2.2.3 Resources as instruments of power
A majority of studies in Africa-China relations have focused on the economic, military and political power aspects of the Chinese as an explanatory variable to presuppose its domination in the decision-making patterns when engaging African agents. Following on Hagmann and Peclard (2010), I define resources as attributes for and of individual or collective action which are derived from “tangible and intangible assets such as bureaucratic capacities, organisational skills, finance and ability to mobilise funding, knowledge and technical expertise, control over physical violence, international networks, and political alliances” (2010, p. 547). Resources become a set of attributes that are possessed by state agents or non-state agents. Resources wield power and access to them is dependent on history and context (Sayer, 2004). However, not all agents are equal; some have more resources at their disposal than others. At the same time, having a range of resources at your disposal does not necessarily translate to having power, it is instead in the “effective mobilisation” (Law, 2004, p. 794) of those resources that one assumes the power to successfully or unsuccessfully condition social action. It is through effective resource mobilisation that agents may condition

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30 It is not only and always the non-state-agents that design and employ tactics in order to meet the criteria of being strategically selected by the state agents. The processes are co-constituted and relatively mutual although the state may have more ‘resources’ than the non-state agents.

31 Even access to land which we shall see in the proceeding chapters.

32 Influenced by George Orwell’s Animal Farm novel dictum: “all animals are equal, but some animals are more equal than others”.

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In the context of Africa-China engagements, specific agents whether state or non-state, possess resources which are deployable to operationalise their power in the contexts they operate to achieve their goals. This relates to agents influencing other agents in vertical, horizontal and multi-directions in relation to structural hierarchies. This is achieved through control of many variables such as physical access to land; capital mobilisation and utilisation (domestic or transnational); production and distribution of technology; deciding the rules of the game by elites, executives, bureaucrats and civil servants (Corkin, 2015; Soulé-Kohndou, 2016); skills and technical know-how; resistance, and physical violence (Taylor, 2015) within and beyond the country, region, sector and project. African agents make use of the resources to manoeuvre and strategically influence engagement patterns with the Chinese.

Control over rules of the game is a resource attribute that contributes to African agents’ ability to influence the engagement patterns with internal and external stakeholders. By rules of the game, I mean formal and informal (Hodgson, 2006, p. 2), laws, norms, “procedures, routines, and conventions embedded” in the institutional structures used by agents when engaging with internal and external stakeholders (Pojani & Stead, 2014, p. 2405). Institutions are thus used as resources of power and are deeply embedded in governance structures which resonate with history, culture and ideology (Kern, 2011). The governance and regulatory structures are likewise co-constituted in state-society relations (Migdal, 2001). It is again these respective institutions which will define and mediate state-society and market-relations (Levy & Newell, 2002). Institutions do not only give agents regulatory power; they, in turn, govern agents’ behaviour when engaging other agents. Therefore, it is through the institution that the state agents (government) may choose or prioritise certain agents, interests, ideas, preferences, sectors, national strategies over the others through ‘strategic selectivity’ (Jessop, 2004). Overall, resources as instruments of power suggest that power is relational and is dependent on context and time. As such “unequal power resources do not equate to unequal power […] those with fewer resources can prevail over those with more” (Haugaard, 2012, p. 354).

2.2.4 Repertoires as discursive forms of power
African agents in Africa-China engagements often use repertoires to influence and condition their decision-making patterns. Repertoires are dominant imaginaries or discourses, frames, norms, ideas, concepts, perspectives, beliefs, and identities which are symbolic but strong

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33 Domination relates to power emerging from the centre (for example the top management of an organisation, enterprise etc.) distributed across the network; Coercion relates to use of force (or control someone against his/her will); Seduction and Inducement related to persuasion and choice; and Manipulation related to skillfulness to change perception if not behaviour. Importantly “some forms of power cannot be dissociated from face-to-face interaction” (Law, 2004, p. 795) or ‘during negotiations between co-present parties’. For more see Allen, J. 2003. Lost Geographies of Power, Oxford: Blackwell Publishing Press.
enough to influence social action (Avelino & Rotmans, 2009; Hajer, 2006; Levy & Newell, 2002). These repertoires are embedded in temporal socio-cultural settings and are reproduced time and again “to give meaning to action” (Hagmann & Peclard, 2010, p. 547). Barnett & Duvall (2005, p. 55) relates that repertoire is a discursive form of power that “emphasises social processes, systems of knowledge through which meaning is produced, fixed, lived, experienced and transformed”. As is the case with resources as instruments of power, repertoires as discursive forms of power likewise require effective mobilisation. Effective mobilisation of the repertoires allows agents to accrue dispositional power and popular support to the extent of developing capabilities to set and shape agendas, preferences, and interests (Geels, 2014). Geels further suggests that it is through discursive forms of power that agents can shape ‘what’ is being discussed, and also the ‘how’ component of the discussions. For Hagmann and Peclard (2010, p. 547) citing Bayart (2005[1996]:110) these repertoires are “not uniform bodies of language and thought, but mostly hybrid norms, discourses and ideas that have been amalgamated in past political interactions”—where reference is always made to them by agents to legitimize their actions. Within the Global North-Africa engagement context, discursive interpretations relate “to references to ‘good governance’, ‘human rights’, ‘democracy’, ‘development’, ‘anti-Western ideologies’” (Hagmann & Peclard, 2010, p. 547). Likewise, in the context of Africa-China engagement and South-South Cooperation, ‘developmental state’, ‘developing countries solidarity34’, ‘win-win friendship’, and ‘non-interference in internal affairs’ are often cited repertoires shaping engagement patterns. As averred by Geels (2014) these discourses will increasingly become dominant resultant shaping rules, resources and agents’ configurations. It is nonetheless difficult to measure repertoires, but one is certain of their ability to tremendously influence public discourses around Africa-China engagements including among others—China as seen as being a development predator and or, China as seen as a development saviour for Africa. Ultimately such imaginaries and narratives inform and influences how African agents view and interact with Chinese actors.

2.2.5 Interests, ideology, ideas, preferences and values
Realist informed thinking echoes the idea that agents engage with other agents in pursuit of self-interest. Self-interest relates to “needs, desires, concerns, fears—the things [actors] cares about or wants. They underlie people’s positions—the tangible items they say they want” (Ury, Brett, & Goldberg, 2010, p. 2). As such self-interest drives behaviour and outcomes. From an IR perspective, states engage other states influenced by the need to promote their national interests. These national interests may vary depending on the economic and political elites, or general populations’ considerations. Such interests range from security, peace and

34 As in of shared underdevelopment experience and selected moments of shared colonial history.
development and cascades to the national, regional, local, industry and sector. This brings a multiplicity of competing interests. Current debates on Africa-China engagements present scenarios which justify why African countries' national interests have pushed them to look East, to Asia in general and China in particular (Obala, 2014; Ojakorotu & Kamidza, 2018; Tombindo & Tukić, 2016). It is argued that China does not interfere in the domestic political and governance affairs of host countries. This is a welcome policy approach by a majority of African political elites because it reduces their political accountability, including for the establishment of good governance systems, a pre-condition for successful engagement patterns with Euro-American countries and donor agencies (Ojakorotu & Kamidza, 2018).

Questioning the role of African agency in Africa-China relations presents an opportunity to scrutinise how African agents’ national interest priorities define and condition the engagement patterns with Chinese actors. It is through this scrutiny of interests that I will be able to establish what drives Africa-Chinese engagements.

Whereas national interests play an important role in conditioning African agents’ engagement patterns with Chinese actors, they are also equally influenced and guided by wider ideological, ideas, preferences and values which are discursive but powerful enough to shape attitude, behaviour, thinking and possible outcomes. For that matter, African agents rely on “ideological, historical, domestic politics and geopolitical factors” (Fraser & Whitfield, 2008, p. 5) as motivational considerations for engaging with Chinese actors. This challenges the long existing assumption of external factors as more determinant in conditioning the African agents’ interests and preference identification. As Leftwich & Adrian (2014, p. 89) argue:

“the centrality of ideas in the political process is seen in the politics of ideas35, the battle for hearts and minds, political rhetoric, ideology, evidence-based policy, public and political values, policy learning, think tanks, public attitudes, opinion and perceptions, deliberation and participatory development. The very language of politics conjures up the centrality of conflict and struggle over values and ideas”.

Ideology, ideas, preferences and values are part and parcel of the fabric of the political context. They are ‘social facts’ which are collective and not individual, have structural and agential components to them, and can work through causal or constitutive channels (Ibid, p. 91). Leftwich and Adrian (2014) aver that ideas can be disaggregated into a tripartite dimension: level, content and purpose. The level here relates to the ideological or philosophical stances that influence and shape agents’ attitude, behaviour and thinking. The ideological stances relate to the adoption of a governance framework (economic, social, and political) which

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resonates with history, identity, culture and interests of the country or industry. Examples include among others, developmental state or state-led development (in the case of Ethiopia) identity, free-market beliefs (market liberalisation), democracy, and authoritarianism. The content relates to programmes which create roadmaps and concrete strategies for agents (Hudson & Leftwich, 2014). It is through programmes that ideological or philosophical stances are put into practice. The purpose relates to policy framework through which programmes are implemented. Policies further “contain ideas about what works best where to achieve the values driving the programme” (Hudson & Leftwich, 2014, p. 93). Studying ideas, ideology, values and preferences in Africa-China relations allows one to question how African agents can influence and control engagement patterns with Chinese actors.

Given the multiplicity and complexity of the range of actors involved in Africa-China relations, this study will specifically focus on Ethiopian agents’ interactions with the Chinese stakeholders in the financing and development of Adama wind farms. I will unpack how ideology, ideas, preference and values influenced the engagements patterns and dynamics between the two countries. It is within these imperatives that agency is exercised (Fraser & Whitfield, 2008) and one should question how much, and to what extent were Ethiopians able to control, influence and have embedded autonomy in the interactions. Who designed the wind energy policy position? Who set the national development targets for wind energy? Who coordinated the methodological and implementation strategies, and who was in charge of the two wind farms’ development objectives? Did the Ethiopians reject, if need be, imposed onerous conditions? It is in these “realms of decision making” (Fraser & Whitfield, 2008, p. 4) where interests, preference, ideas and values are protected and promoted. So how do these play out in the brokering, negotiation and modalities of engagement processes in such mega-infrastructure deals?

2.3 Negotiations processes

2.3.1 Brokerage processes
Brokerage processes (deal brokering) as part of the negotiation processes appears to be a black box and remains nonetheless missing in research and scholarship for not only Africa-China engagements but broader African engagement within and beyond the continent. I define negotiation as “a process by which [actors] attempt to influence others to help achieve [their] needs while at the same time taking their needs into account” (Lewicki, Saunders, & Barry, 2010, p. v). By brokerage processes, I question who initiated the need for engagement between African agents and Chinese stakeholders. In other words, who brokered the deals? This allows me to probe the factors which drove and motivated the engagements to occur. In so doing, I will be able to understand not only the factors behind that but also the levels at
which the engagements begin, operate and end, with who and with what implications. Additionally, this will allow me to reconstruct the processes from engagement initiation to the agreed course of action and implementation. I will be able to track the decision-making through the projects’ life cycles. Good or bad deals are sealed at the brokerage stage and it is where the scrutiny of agency should begin. As I conceptualise African agency as the ability of African agents to be self-reflective and projective of their possible actions in future, interrogating deal brokering allows me to move from structural determinism to relationality where context and time become important. In the brokerage process at the state level in particular, I unpack how political leadership—the strong man and woman phenomena, a committed entrepreneurial elite as well as efficient and well-trained bureaucratic workforce significantly influence the exercise of agency by Africans.

2.3.2 Negotiating strategy
Negotiating strategy is one of the prisms where African agency can be operationalised in the context of Africa-China engagements. African agents negotiating strategies with the Chinese actors have among other alternatives been based on collaboration “in which they always attempt to maximise their outcomes while preserving or enhancing their relationship” (Lewicki, Hiam, & Olander, 2010, p. 17). As is the case in any negotiation, the negotiation processes always have a “starting point, a target, and an ending point or walk away” (Lewicki, Hiam, et al., 2010, p. 20). The starting point in this regard is where the negotiations begin, a target is the intended outcome of the negotiation, while an ending point or walk away is where agents are prepared to let go of the negotiations—what Lewicki, Hiam, et al., (2010) terms ‘the cut-off point’. However, for the negotiating strategy to be effective, agents are supposed to operate within the basis of negotiating tactics. Negotiating tactics include but not limited to:

“Behavioural tactics such as bluffing, being aggressive, and threatening, which can give the competitor power over the other party. While these tactics work sometimes, they also have problems as they can potentially backfire on the person using them, so they must be employed carefully” (Lewicki, Hiam, et al., 2010, p. 21).

Furthermore, agents may likewise set limits as part of the negotiating strategy in which negotiations will occur “only under certain conditions, in a certain location, at a certain time, or in a certain manner” (Nierenberg & Calero, 2010, p. 52). This resembles “management skills for negotiations” (Collins, 2009, p. 3). Other than the behavioural tactics, African agents also use resources and repertoires (as explained earlier) as part and parcel of the negotiating

36 Alternatives being passivity and contestation. A bias towards collaboration as reflected above does not signal that Africa-China negotiations are always based on collaboration. Passivity scenarios would imply Chinese stakeholders’ engagement with African agents being left to operate freely, unchallenged. Contestation is reaction to instances where Chinese operation or interests, are conflictual to African agents’ norms, values and interests. Contestation therefore resembles resistance or opposition to engagement practices that undermine or threatens the fabric of African agent’s interests.
strategies to influence the outcomes in their favour. Also, the political leadership interventions also steer negotiations towards intended outcomes and have often been used by Meles Zenawi when engaging the Chinese. Hudson and Leftwich (2014) term it ‘classic great man’ explanation. For some, astute technical and bureaucratic skills help African agents to manoeuvre and influence outcomes (Taylor, 2005). It is within these confines where the negotiating strategies emerge.

2.4 Modalities of engagement
Reconstruction of modalities of engagement between African agents and Chinese stakeholders involved in the decision-making processes is always a challenge because of data unavailability and secrecy behind these deals. I attempt to bridge this gap by reconstructing the decision-making processes of Ethiopian and Chinese stakeholders who were involved in these projects. This allows me to get a deeper and wider perspective of the strategies employed by Ethiopian agents when interacting with the Chinese. I undertake a nuanced approach of agency seen as not entirely the rejection or resistance of Chinese domination, as if all Afro-Sino engagements are conflictual and detrimental to African progress, but of ability, capacity and capability of African agents to shape the terms and conditions of engagements at the negotiating tables. That said, African agency in the context of Africa-China engagements should not, therefore, be seen as “opposition to external forces […] [as] we may miss the wide range of African actions that […] are simply geared towards coping and survival within a highly unequal global system” (Murray-Evans, 2015, p. 1847). As modalities of engagement are context (sector) dependent, it is through empirical cases that one will be able to reconstruct “decision-making processes as far as possible by accessing the perspectives and strategies of the actors” (Fraser & Whitfield, 2008, p. 8) who were involved in the projects under study. Modalities of engagement in this regard imply the course of action undertaken by African agents at different stages of the negotiation when engaging with the Chinese counterparts aimed solely at safeguarding their interests.

2.4.1 Negotiation zone
Negotiation zones are important avenues where Africa-China engagements unfold. Negotiation zones are defined as venues, social spaces or theatres where agents contest one another’s interest and agenda to influence the outcome of the engagements. It is in the negotiation zone that “power and authority are vested [and] need to be traced empirically on a case by case basis” (Hagmann & Peclard, 2010, pp. 550–551). Negotiation zones are dynamic and vary between context and time. It is within the negotiation zones that African agent’s vis-à-vis Chinese actors contest for influence. Hagmann and Peclard (2010, p. 551) argues that the negotiation zones include but are not limited to:
“A varying number of actors, some of which are recognised as participants of formal decision making [...] (typically ‘big men’, politicians, businessmen, diplomats, but also religious leaders, NGO representatives) and others who have been denied access to the negotiation table (typically minority groups, women, groups with a lower socio-economic status)” (Hagmann & Peclard, 2010, p. 551).

Negotiation zones are in essence ‘contact zones’ (Santos, 2014) spaces where political decisions and or the political agendas are set for engagement, within and between African agents, and Chinese actors. Negotiation zones, therefore, shape African agents but do not entirely determine their behavioural practices and actions in decision making. This makes negotiation zones not only “difficult to locate geographically” but also complex to “distinguish between formalised/ recognised and non-formalized/non-recognized negotiation settings” (Hagmann & Peclard, 2010, p. 551). This is because they “are embedded in social relations between contending groups and are characterised by spatiotemporal dynamics and a certain informality” (Ibid, 551).

2.4.2 Negotiation tables
Negotiating tables are important frontiers or formalised/recognised settings where African agents meet the Chinese stakeholders in their engagements. Negotiation tables vary from one case to another and include “diplomatic conferences involving heads of states, through donor consultations between international financial institutions and local NGOs, to meetings by customary chiefs under the village tree” (Hagmann & Peclard, 2010, p. 551). This is where negotiations occur and are governed by procedures or protocols of engagement in the form of diplomatic conventions; Memorandum of Understanding; sovereignty (in the case of state to state engagements) where counterparts are recognised as “legitimate stakeholders in deciding upon a particular political matter” (Ibid, 551). In the context of Africa-China engagements, negotiation tables relate to the bilateral state to state level, multilateral level such as the African Union (AU), Forum on China Africa Cooperation and other regional economic blocs such as East African Community (EAC), ministerial level (Finance, Energy, Trade, Infrastructure), sectoral level and project implementation level. Negotiation tables are dependent on the political interests of the stakeholders of the particular space and time, while negotiation zones are broad and involve multiple stakeholders making them relatively difficult to change over time and challenging to locate empirically. That said, negotiation zones evolve from agendas which are negotiated over multiple negotiation tables and stakeholders—a reason to explain their long term patterns. In this study, negotiation tables, therefore, provide a window to see and understand the spatiotemporal context where power and authority are vested in decision-making processes. Furthermore, it will allow me to understand how different sectors and projects use different negotiation tables, and how such influence African agency.
2.5 Chapter Summary
This chapter began by historicizing the exercise of agency by African actors when engaging external stakeholders traced and located from, during and after the colonial and post-colonial, cold war and post-cold war, and the structural adjustment periods. Although African actors were not passive when interacting with the external actors in these periods, there appears to be a lack of understanding of what constituted agency, and how internal factors influenced the exercise of agency. Such shortcomings could be traced from an incomplete or inappropriate definition of the African state. As such, I revisited the definition of the African state in which I argued that the African state should be seen as a negotiated entity located and embedded primarily in the social forces that operate within its territorial jurisdiction. The state-society approach was helpful especially in framing the African agency argument as it provided an opportunity to explore potential drivers and motivations of an African country to engage external stakeholders. It also provided an angle to analyse how such engagements are structured and implemented, and the development implications thereof. The second part of historicizing African agency explored how the rise of Global South countries such as China presents an opportunity for the reinvigoration of African actors’ practice of international relations and politics. These emerging economies provide leverage or triangulation for African actors to play one donor against another to their advantage.

Apart from historicizing African agency, this chapter also presented a contextual and a theoretical basis to apply African agency as an analytical framework to examine Africa-China engagements. It does so by engaging with realism, constructivism and institutionalism theories. Relying heavily on Colin Wight’s (1999; 2004; 2006) work on agency, William Brown’s (2006; 2012; 2013) and William Brown and Sophie Harman’s (2013) work on African agency in international relations and politics I have conceptualised state, state-based actors and non-state actors as agents involved in the practice of international relations with Chinese stakeholders. I further located such a conception in the sociological reading of agency proposed by Emirbayer and Mische’s (1998) work. To understand the agential dimensions of the agents, I unpacked two attributional factors of power; resources and repertoires that actors deploy to influence the engagement patterns and achieve their intended objectives. However, these two dimensions of power go hand in hand with interests, ideology, ideas, preferences and values of the agents involved, and substantially condition the interactions. The chapter concludes by locating and discussing the practicalities of the spheres where African agency is exercised. Discussions were thus centred on the negotiation processes and the modalities of engagement involved between African and external actors in the practice of international relations. Finally, while the existing literature on African agency in its broadest sense certainly exists, little research has been conducted which applies African agency as a theoretical
framework to understand Africa-China engagements in the financing and development of wind energy infrastructure. As such what drives African agents to exercise agency is in the state-society relations and it is through an empirical exploration of the drivers, motivations, engagement modalities, negotiation processes, development outcomes and impacts of these interactions that I will be able to establish the operational nature of agency.

Using Ethiopia-China engagement in the financing and development of the Adama wind farms as case studies, I propose a conceptual and analytical framework of African agency which is highly contextual, relational, historical and political but opens possibilities of generating new epistemological and methodological approaches of normatively and empirically framing and studying African agency in Africa-China engagements. As I shall present in the later chapters, this framework will make it possible to understand the form, outcomes and implications of African actors’ exercise of agency when engaging the Chinese in infrastructure development projects. Therefore, it is suggested that the application of an African agency framework in the context of Africa-China engagements in infrastructure financing and development might be particularly helpful in generating an understanding of what African agents want, and how they innovatively get what they want in those tight corners which they operate. The next chapter provides a methodological approach deployed to answer the research questions set in this study.
### Appendix 2.1 Conceptualisation of African agency

<table>
<thead>
<tr>
<th>Typology of African agency</th>
<th>Actor</th>
<th>Characterisation</th>
</tr>
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<tbody>
<tr>
<td><strong>Continental</strong></td>
<td>African Union</td>
<td>Multilateral &amp; Collective actions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Continental</td>
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<tr>
<td></td>
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<td>Formal/Informal</td>
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<td></td>
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<td>MOUs/Declaration/Action Plans</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td>Regional Economic Communities e.g. IGAD, SADC etc.</td>
<td>Regional based multilateralism &amp; collective actions</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td>MOUs/Declaration/Action Plans</td>
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<tr>
<td><strong>State</strong></td>
<td>Nation-state e.g. Ethiopia</td>
<td>Bilateral</td>
</tr>
<tr>
<td></td>
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<td>Formal/Informal</td>
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<td></td>
<td></td>
<td>MOUs/Declarations/Action Plans</td>
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<tr>
<td></td>
<td>State-based actors and institutions representing the nation-state e.g. Ministry of Finance, Public Enterprises, Utilities, Companies etc.</td>
<td>Institutional &amp; regulatory actions</td>
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<td></td>
<td></td>
<td>Implementation/Management</td>
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<tr>
<td><strong>Non-state</strong></td>
<td>Individuals/interest groups/ community &amp; religious leaders etc.</td>
<td>Individual/Collective actions</td>
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<td>Implementation</td>
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CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction
In order to understand Ethiopia-China engagement in the financing and development of the wind farms, this chapter discusses the research design and methodology of this study. Given the research gap and the theoretical foundation presented in chapter one and two respectively, I adopt a research philosophy centred on interpretivist and critical realist paradigms. These paradigms not only guide and shape what one knows and consider as reality but also constructions of knowledge and research around Africa-China relations. I proceed with a discussion of the qualitative case study research design adopted for this study to answer the set research questions. Discussions here centres on the selection and justification of the case studies, negotiating fieldwork and adoption of the process tracing approach, and the methods for data collection and analysis. Building on this, I discuss aspects of rigour and validity which is followed by a critical examination and deconstruction of my positionality, which affects the relationship between the researcher and the researched. It is through reflexivity that the positionality divide is addressed. Building on the reflexivity process, I engage with the politics of knowledge production and how this contributes to the shaping of discourses and narratives on Africa-China relations. Contextual mediation of this debate is important because it reveals “how Chinese knowledge of Africa and African knowledge of China is produced and assimilated […] [and] how this newer knowledge feeds into government policies, Western discourse and understanding, and attitudes and experiences on the ground” (Strauss & Saavedra, 2009, p. 551). Finally, I discuss the challenges I encountered during the fieldwork and the ethical issues that guided the conduct of this research. The last section summarises and concludes the chapter.

3.1 Research philosophy: epistemological and ontological considerations
Research philosophy relates to the way, nature and belief in which knowledge in research is viewed, gathered, analysed and used (Creswell, 2003). There are two main research philosophies namely epistemology and ontology. Ontology is defined as the “study of ‘being’, existence, or the way the world is” (Fleetwood, 2013, p. 3). It relates not only to the physical reality but also anything that has a causal effect. While ontology relates to reality, epistemology relates to the study of reality and how one understands that which is known and exists. It further questions how one gains knowledge of the so-called ‘reality’. Broadly, epistemology, therefore, is “the study of how knowledge is possible” (Fleetwood, 2013, p. 3) and how that “knowledge is validated” (Olsen, 2009, p. 29). Although epistemology and ontology are two different but interrelated concepts, it is challenging to “keep ontology and epistemology apart” (Crotty, 2006, p. 10) because ontology is the study of reality and epistemology the study of how one knows and understands reality. As noted, “to talk of the construction of meaning is to
talk of the construction of meaningful reality” (Crotty, 2006, pp. 2–3). As such, the two co-emerge and cannot be conceptually separated.

This study’s central question is to understand how African agency shapes and influences the relations between Ethiopian and Chinese stakeholders in the financing and development of Adama wind farms. It is through an examination of drivers and motivations, modalities of engagement and negotiation processes and interrogation of outcomes and local development impacts of the wind farms that I will be able to tell if the Ethiopians exercised agency. As such, the exercise of agency as presented in chapter two is relational and context-dependent. To capture this contextual specificity and relationality, I adopt critical realist and interpretative epistemologies. The rationale is that the former is tied to an objective while the latter is aligned with a subjective construction of reality. It is through the application of these epistemological paradigms that I will be able to reconstruct the knowledge and the meaningful reality of the Ethiopian and Chinese actors who were involved in the projects.

3.1.1 A critical realist reading

Critical realism questions the reality and views knowledge as objective (Gray, 2009). Critical realism challenges and rejects a naturalistic and (anti)positivist epistemological reading of causality “according to which value judgements are portrayed as subjective, and perhaps irrational, expressions of emotion or personal feeling” (Hammersley, 2009, p. 2). Critical realism sees knowledge in research as fallible, meaning empirical knowledge is rationally justified and accepted even though it cannot be proved with certainty (Roberts, 2014, p. 3). This is because there is always a possible doubt, an unavoidable reality caused by human cognitive capacities37 (Hammersley, 2009). Responsible rationality, therefore, entails objectivity is reached through the evaluative process of reflexivity.

Critical realism proposes a layered domain of reality in which mechanisms and patterns of social actions are observable from causal relationships between and among variables (Roberts, 2014). The layered domains of reality can be observed as ‘the real’ (structures and powers of an object—mechanisms), ‘the actual’ (what event, what situation, what scenario), and ‘the empirical’ (observable events, situations, scenarios) (Sayer, 2000). Layered domains in this regard relate to understanding “of the world as stratified, [distinguishing] the domains of the real” (Scott, 2014, p. 1). The relationship between these layered domains helps to explain “the causal mechanisms and their effects” (Pawson & Tilley, 1997, p. 69). This implies that causality is relational and dependent on the context in which the objects under inquiry operate.

37 For Hammersley (2009, p.3), its trivial because “it can, of course, be argued that this value principle is deeply entrenched within, or even constitutive of, human social life”.

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The use of a critical realist paradigm is consistent with other studies around Africa-China relations (see Brautigam, 2009; Wilbertz & Rehling, 2014). As is the case elsewhere, the construction and interpretation of African agency in Africa-China engagement are conceived from existing perceptions, preferences, stereotypes, interests and ideologies (see Adem, 2016; Geerts, Xinwa, & Rossouw, 2014; Le Corre, Sun, Sy, & Trinkunas, 2015; Rebol, 2010). The use of critical realism in this study is necessary and justified to puncture rosy (Marks, 2010) and anti-Chinese assumptions with realistic accounts.

One limitation of a critical realist reading is that it only explores the observable actions of the object under enquiry, and “thus fails to ask enough questions about an object’s internal ontological properties” which are not observable (Roberts, 2014, p. 6). The internal ontological properties reflect the dialectical interplay between structure and agency of that object. Taking, for instance, African agents in their engagements with Chinese actors, a critical realist approach fails to recognise the internal properties that characterise the agents and how they impact their behaviour and social action. Given this limitation, I propose an interpretative epistemological reading of knowledge. The rationale is that critical realism can be used together with the interpretive paradigm. Critical realism “acknowledge(s) the value of interpretivist methodologies that focus upon discourse, human perception and motivation” (McEvoy & Richards, 2006, p. 70). This underscores the “underlying social structures, which may enable or constrain the actions of individuals or to the social networks in which social actors are embedded” (Ibid, p.70). As a researcher, I am part and parcel of the social world I am studying and, similarly, I may construct the reality of the social phenomena out there (Hammersley & Atkinson, 2007).

3.1.2 An interpretive reading
Denzin and Lincoln (2003) relate the interpretive paradigm as a subjective construction of meaning and reality. Knowledge in research is seen as relational and is context tied. An interpretive approach focuses on the finer and situational analysis of the details of an event, intervention, and/or process (Dean, 2018). According to the interpretive paradigm, knowledge in research is value bound, and the researcher is intrinsically synced with the study (Denzin & Lincoln, 2003). As a researcher, I “seek to understand values, beliefs and meanings of phenomena, obtaining verstehen (a deep and sympathetic understanding) of human cultural activities and experiences” (Kim, 2003, p. 10). Due to the subjective nature of the interpretive epistemological foundation, there is a multiplicity of realities, and for that matter, employs mainly qualitative research design and techniques in both data collection and analysis (McEvoy & Richards, 2006). There is a need to adopt a subjective stand in order to harness all potential existing narratives, then triangulate them to achieve rigour and validation of claims (Oliver-Hoyo & Allen, 2006; Olsen, 2004). In this study, I acknowledge that knowledge and
meaning around Africa-China engagements are socially constructed and bound to subjective interpretation. Such subjective interpretations go with the politics of knowledge production on what constitutes reality in these engagements.

The interpretive paradigm is adopted in this study because it is “appropriate for studies of complex human behaviour and social phenomena” (De Villiers, 2005, p. 111). It focuses on understanding phenomena that occur in their natural settings and mostly rely on verbal data where the researchers’ “values and human experiences are relevant” (Ibid, p. 111). A study of this nature which questions the motivational factors for Ethiopia and Chinese stakeholders about financing and developing the wind farms seeks to understand the reasons for such intervention which can be interpreted from multiple realities. As such, the reasons for Mowie are different if not conflictual to those of a farmer, who has just lost a piece of land to develop the wind farms, an economist who is aware of the debt burden, or a business person whose firm has been allocated more electricity. It is through an interpretive approach that such multiple realities can be captured. Finally, this study adopts a case study approach which sits well with interpretivism. Use of an interpretive epistemological paradigm is consistent with a majority of studies in Africa-China relations (see Benabdallah, 2017; Maparure, 2014; Nunoo, 2017; Qichen, 2016; Wolbrink, 2017; Youngman, 2017). A combination of critical realism and interpretivism establishes that on the one hand meaning is socially constructed and bound to multiple subjective interpretations and, on the other hand, knowledge production in research is objective, fallible and is based on causality. Overall, to understand the conditions and processes under which events occur, the time and context of the phenomena under enquiry is important to ground one’s responsible rationality and objectivity.

3.2 Qualitative case study research design
A case study approach relates to the study of a phenomenon in its natural setting in which the researcher employs multiple methods to gather and analyse data (triangulation) (Yin, 1994). Creswell (2007) conceptualises a case study as an inquiry which provides an in-depth interpretation of processes, events or individuals, in scenarios where the phenomenon is unfamiliar/less familiar or even unknown. By definition, it is a study in which “the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information, and reports as case description and case-based themes” (Creswell, 2007, p. 73). Therefore, the case study approach offered a microscopic and contextual investigation of the cases which allowed me to obtain rich data necessary for answering the research questions.

3.2.1 Ethiopia as a country case study
Ethiopia was chosen as a single country case study on Africa-China engagement to have more grounded and robust discussion where more space was allocated to one country as
compared to many\textsuperscript{38}. Using of single country case study is consistent with other studies in Africa-China relations. Single country case study advances the quality of research as focus will be on depth rather than breadth. There are several explanations for this. First, Ethiopia is one of the second largest non-oil and non-mineral resources rich recipient countries of Chinese loans (Chen et al., 2015; Pilling, 2017) (see figure 4.7; figure 4.8). Additionally, the Chinese are not only financiers, but also the largest builders of Ethiopian infrastructure (Scoones et al., 2016)—roads, railways lines, telecommunication, aviation, industrial parks, hydroelectric dams, and wind farms (see appendix 4.2). Secondly, as of 2018, China became Ethiopia’s largest goods and services export partner, with Somalia and the USA coming second and third, respectively (Workman, 2018) (see appendix 4.5). Thirdly, China is now the largest provider of foreign direct investment in Ethiopia, ahead of India, Turkey, USA and UK (Nicolas, 2017) (see figure 4.9; 4.10). Finally, Ethiopia is presented as one of the few African countries able to meaningfully and strategically exercise agency when engaging with not only Chinese but any external actors. It is argued that Ethiopia is not a “passive recipient” or a “pawn” (Alemu & Scoones, 2013, p. 91) in the wider power games (Mohan & Power, 2008) and yet is a highly aid-dependent country (see figure 4.5). For Brautigam (2011, p. 1), “China sees Ethiopia as a land of business opportunities, but the African country remains in charge of any deals”. Despite that “Ethiopia’s ties to China have until recently escaped much academic and mainstream literature as it is not a resource-rich country […] yet is important in other ways” (Gadzala, 2015, p. 85). Gadzala further claims that Ethiopia has a “unique makeup [as] Chinese engagement in that country diverges from that in other states” (\textit{Ibid}, p. 85). The preponderance of othering and (re)presenting Ethiopia as a unique case juxtaposed with other African countries drove my zeal to explore why that was the case. As such, Ethiopia was selected because to the best of my knowledge no studies exist to date where the African agency lens has been applied to Ethiopia-China cooperation in the financing and development of wind energy infrastructure. The area remains a niche, and this study generates new knowledge and contributes to debates on African agency in Africa-China relations.

3.2.2 “Cases within a case study”: Adama 1 and Adama 2 wind farms
Adama 1 and Adama 2 wind energy infrastructure projects are my case studies. Adama 1 is about 3 kilometres from Adama town. It has 34 units of GW77/1500 kilowatts each with a 76.9 metre diameter Goldwind turbine model. The central location of Adama 1 lies at 39°13’48′E, 8°32’41′N and ranges between 1824 and 1976 metres above sea level. The wind farm has installed electricity generation capacity of 51 MW. It has a 55 mega volts-amp transformer with a 132/33 kilovolt line connected to Nazret substation by a 132kilovolt single circuit overhead

\textsuperscript{38} Several studies have adopted a single country case study to ensure finer disaggregated analysis of Africa-China relations. See Soule-Kohndou, 2016; Taylor, 2015; Hogwe & Banda, 2017; Corkin, 2013; 2015.
Adama 2 is about 7 kilometres from Adama town and has installed electricity generation capacity of 153 MW from 102 units of SE7715/1500 kilowatts each with a 77.7 metre diameter SANY turbine model. The central location of Adama 2 lies at 39°12' 10''E, 8°34′ 18'N, and ranges between 1741 and 2173 metres above sea level. It has a 230kilovolt sub-station with two 90 mega volt-amps. The high voltage terminals are connected to Koka Switch Station by a 230kilovolt single circuit overhead line (HydroChina Corporation, 2013).

Several reasons led me to select the two wind farms. First, Adama wind farms are the first Chinese financed and developed wind energy projects in Africa (PowerChina, 2016a). Currently, Adama 2 is the second largest wind power project in Africa. Financing and development of wind energy is not normally associated with Chinese engagements in Africa. Instead, China is known for developing roads, railways, stadiums, hydroelectric dams, fossil fuels, telecommunication infrastructure (Sun et al., 2017). The two wind farms have made Ethiopia the 4th largest African country using wind energy (GWEC, 2016b; Tiyou, 2016). Globally, Ethiopia sits at number 40 in wind energy installed power, with China being the largest manufacturer of wind turbines and the largest country using wind energy (GWEC, 2016b). These two wind farms have opened Ethiopia’s market for wind energy development (GWEC, 2016b; Renewable Energy Policy Network for 21st Century, 2016).

Second, the impact of climate change because of greenhouse gas emissions and other natural factors motivated me to select the two projects. The wind farms qualify as part of Goal 7 of the sustainable development goals (SDGs) centred on ensuring access to clean, reliable, modern and affordable energy for all (United Nations Development Programme, 2016). Globally, electricity generated from wind energy contributes to carbon dioxide emission reduction by more than 3.3 billion tonnes per year (GWEC, 2016a). In the case of Adama wind farms, the technical documents suggest that the two projects are recorded to have zero greenhouse gas and other pollutants. This sits well with the Ethiopian government’s Climate Resilient Green Economy Strategy (CRGES) and the Intended Nationally Determined Contributions (INDC) which targets to slash per capita emissions by 64% in 2030 (Federal Democratic Republic of Ethiopia, 2015, p. 1). The two wind farms qualified for Certified Emission Reduction (CER) funding from the Clean Development Mechanism (CDM) arrangement of the Kyoto protocol on climate change adaptation financing. For Adama 1, the CER revenue was estimated to be

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39 For Brautigam “I think the case study approach is hugely useful. There’s so much that we don’t know, and good research comes when people stick with one case study and I’m not talking about just one country, but a project in general and find out all they can about it” (2013).

40 It was the largest in 2015 before the Kenyan Lake Turkana wind farm.

41 By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries.
around US$5.21 million over the estimated 21 year project lifespan\textsuperscript{42} (HydroChina Corporation, 2009).

Third, developing (wind) energy infrastructure is key to Ethiopia’s social and economic structural transformation. It contributes to economic growth by powering industrialisation and transforms beneficiaries of electricity services. More than 70% of the 109 million population do not have access to electricity which affects essential and industrial services. For example, “only 24% of primary schools and 30% of health clinics have access to electricity” (World Bank, 2018b, p. 2). About 80% of the total Ethiopian population live in rural areas and the majority use biomass for cooking and heating which has serious health effects associated with pneumonia, chronic lung disease and lung cancer. As part of the Ethiopian government’s National Electrification Program (NEP), the two wind farms fall within the scope of the ‘100% electricity access target’ by 2025 (World Bank, 2018d). As such (wind) energy infrastructure is crucial as it contributes to the building of resilient infrastructure which promotes inclusive and sustainable industrialisation and fostering innovation (United Nations Development Programme, 2016).

Finally, less attention has been given to the academic study of Chinese investments in Ethiopia’s wind energy sector. There has been a rapid growth of Chinese financing and contracting in Ethiopia, and yet the academic community is silent about this topic\textsuperscript{43}. This could be attributable to an “absence of detailed information at individual project level [which] further restricts developers’ and policymakers’ understanding of the [wind energy] market” (Mukasa, et al, 2013, p. 1). As argued, “China’s involvement in the continent’s utility-scale renewable energy sector is a relatively recent development and is thus an area that warrants further research” (Baker & Shen, 2017, p. 4). Additionally, South-South Cooperation is being given attention in international development as an essential implementation platform of the SDGs. It is through academic research that one will be able to contest, verify and recognise the importance of such partnerships (United Nations Development Programme, 2016). For these reasons, the two wind farms were selected as case studies. Use of case studies in this research is consistent with conducting academic studies around Africa-China relations (see Baker & Shen, 2017; Brautigam, Hwang, & Wang, 2015; Chen, 2016).

\textsuperscript{42} During fieldwork, no data was readily available for Adama 2.

\textsuperscript{43} Except for Chen’s (2016) working paper.
3.3 Negotiating fieldwork: a process tracing approach

To holistically capture the engagement patterns and dynamics of what happened in the financing and development of the wind farms, I adopt a process tracing approach. Informed by the critical realist and interpretivist paradigms, the process tracing approach entails unpacking procedures and principles undertaken to reconstruct the timeline and course of action taken along the project life cycle. The purpose is to “establish [a] causal relationship between one or more explanatory variables” (Yarhi-Milo, 2015, p. 1). This approach is time intensive and requires prolonged, systematic engagement with various stakeholders, in collecting a large amount of data on the case under reconstruction. Process tracing is employable in circumstances where the researcher has: (i) “in-depth knowledge of the cases”, (ii) “solid understanding of the general knowledge relevant to the cases”, and (iii) “strong ability to formulate a coherent argument that integrates case-specific facts and general knowledge” (Mahoney, 2015, p. 202). High-quality process tracing was made possible by my personal experiences of previously staying in Ethiopia for over ten months combined with prior
knowledge of the two wind farms and a robust understanding of the debates around Ethiopia-China engagement. These were significant factors which led me to develop historical explanations of the case studies. Although there are several approaches to process tracing\textsuperscript{44}, I use a historical explanation which is consistent with the majority of studies in Africa-China relations (see Carbone, 2011, p. 204; Malm, 2016, p. 60). A historical explanation approach has two essential aspects: causal analysis and sequence analysis, where attention is on the “identification of causes of outcomes that have already occurred” (Mahoney, 2015, p. 202).

A historical explanation approach is useful where data is not publicly available or difficult to come by. Given that the wind energy industry is still in its infancy in Ethiopia, very few people have access to information on how the negotiations and decision-making processes were carried out. Through the interviews with Ethiopian and Chinese ministries, institutions, agencies and local communities, I obtained important information which enabled me to reconstruct sequentially the processes undertaken to develop the two wind farms. I, therefore, conducted prolonged and intensive fieldwork for nine months in Ethiopia (Addis Ababa, Mekelle and Adama) and an additional three days in South Africa (Johannesburg) from 17-19 December 2017. The fieldwork was divided into two phases. The first phase was from 4\textsuperscript{th} October 2017 to 31\textsuperscript{st} August 2017 and the second phase was from 2\textsuperscript{nd} October 2017 to 21\textsuperscript{st} January 2018. As part of the Home Office requirement an international student under the Tier 4 Visa regime is not allowed to be outside the U.K. for more than six months. This forced me to split fieldwork into two phases. Initially, I thought it was disadvantageous as I had planned an evolutionary approach to data collection which required an elongated time in the field without any break. However, it later worked to my advantage as I had one month break from the field in September 2017. The break allowed me to reflect on the content, patterns and themes of the data I had already collected.

For the entire duration of data collection, I was co-hosted by MU (see appendix 3.4; 3.5) and Addis Ababa University (AAU) (see appendix 3.6;3.7) because of personal relations I had established in my previous endeavours with the two Universities. I also had personal connections with Ethiopian bureaucrats and civil servants especially in MOWIE which helped to negotiate and gain access to some of the research participants. Regardless of the personal contacts and networks, negotiating access and developing trust with research participants was not easy at all. Most if not all research participants requested support letters or introductory letters, and fortunately, based on my previous experience of undertaking fieldwork in Ethiopia,

I had obtained the necessary supporting letters from the Open University (OU), MU (see appendix 3.4; 3.5), AAU (see appendix 3.6; 3.7) and Adama City Administration. The support letters were prepared in English, Mandarin and local languages.

My first interview was on 12 May 2017 in Mekelle with the Vice President of Tigray regional state, former ambassador of Ethiopia to China, central committee and politburo member of both the TPLF and EPRDF\(^{45}\). Getting an appointment with him was not easy. Appointments were set and unset several times. By persistently knocking at his door, he finally gave me the interview. Little did I know that my experience with the former ambassador resembled what would define my entire data collection process in Ethiopia. Getting appointments was a big challenge. Surprisingly, while one would expect that high-level stakeholders are difficult to set and fulfil appointments with, I realised that even low-level stakeholders behaved the same. This was also the case with Chinese stakeholders. It made me realise that basically everyone, regardless of social status either purposefully or unwittingly never took appointments seriously\(^{46}\).

The majority of interviews were conducted at three locations in Ethiopia: Addis Ababa where federal government agencies and institutions are located; Adama (Lome Woreda\(^{47}\), Adama Woreda, Qachema, Mukiye, Sere-robi, Adama, Kobolito, Tede-dildima, Mele-mele, Jogo Gudedo, Bubisa Kusaye Kebeles\(^{48}\)) where the two wind farms are located; and Mekelle—the capital city of Tigray and home to TPLF. Again, MU’s Department of Mechanical Engineering participated as the consultant team leader for Adama 2 together with ASTU in Adama. Informal conversations with people in the streets in Tigray pointed to the unmeasurable role of TPLF-EPRDF in bringing about economic development and prosperity to the country, with the backing of Beijing. As such, my experiences in Tigray points to an informal consensus that development comes first, and democracy comes later—one reason to explain why China is a close development partner.

Negotiating and gaining access to research participants in Adama town had its complexities. In phase 1, I conducted interviews with medium to high-level stakeholders from Ethiopia and China in Addis Ababa and not Adama. I could not conduct interviews in Adama during phase 1 because of physical and personal security reasons\(^{49}\). Instead, I resorted to conducting a

\(^{45}\) Although I arrived in Ethiopia in April, I was not legally allowed to undertake research until a resident permit/visa was issued.

\(^{46}\) With reference to the research participants I invited to participate in this study. This observation does not apply to anyone outside the research environment.

\(^{47}\) Woreda is an Amharic word which refers to a lower local government administration unit in Ethiopia equivalent to ‘district’.

\(^{48}\) Kebele is an Amharic word which refers to the lowest administration unit in Ethiopia equivalent to a ‘ward’.

\(^{49}\) The state of emergency had been extended in Ethiopia and several places in Oromo were not safe for an outsider. Also, Sharon Gray a post-doctoral researcher was killed in Ethiopia when conducting fieldwork in October 2016. See: Nashelly Chavez & Cathy Locke. 2016. *UC Davis scientist killed in Ethiopia had ‘bright future ahead of her’* available at
comprehensive fact-finding mission without conducting any interviews. This included soliciting support letters from Adama city administration and Adama Woreda. It was not easy to get those letters. I secured the letters after I took a bold move by approaching the Oromo regional state President’s office where I was referred to Adama city administration. Adama city administration then referred me to Adama and Lome Woreda administration. From the Woreda level, I was referred to the Kebele administration level where several support letters were issued, clearing me to conduct interviews.

During data collection, I had to carefully negotiate the interviewing approach as ‘anti-Chinese’ elements were present although not explicitly expressed so by the general public in Adama (and the surrounding villages). For them, China is seen as propping up a ‘repressive regime’ through massive development finance in industrial parks (see appendix 4.1), infrastructure sector, and technology for security surveillance of those expressing discontentment to the regime. These narratives partly emanated from the expansion of Addis Ababa into Oromia region which led to massive protests in which some of the Chinese industries were affected. The Integrated Master Plan of Addis Ababa and the Nearby Oromia Towns (now cancelled) further exacerbated the situation leading to massive protest which led to the death of 140 people, and also the enactment of a state of emergency (Chala, 2016). Furthermore, there was growing discontentment by the farmers and youth, who saw their land taken and given to Chinese, Indian, South Korean and Turkish enterprises without being adequately compensated. Oromia residents complained that the enterprises did not give their children employment opportunities, and those employed were poorly remunerated. Add to that there was a preponderance of protests caused by the demand for opening political space and equitable distribution of the economic dividends; the argument being that Oromia which is at the centre of economic growth in Ethiopia, is often side-lined in infrastructure development and various other public goods/services provision (Fortin, 2016).

Several factors motivated me to spend a long time in the field. Firstly, as part of the process-tracing approach of reconstructing the case studies, I had to ‘search’ for the stakeholders who were involved in the projects. The process involved mapping out, ‘screening’ and ‘qualifying’

50 Addis Ababa is an autonomous city-state which is in and surrounded by Oromia Regional State in Ethiopia. It is the capital of Oromia Regional State and Federal Democratic Republic of Ethiopia.
51 The Integrated Master Plan of Addis Ababa and the Nearby Oromia Towns was rejected by the Oromo because of mistrust generated from lack of genuine participation and anticipated repercussions on the identity, culture and livelihood of the Oromo. See Asebe Regassa Debelo. n.d. Why do the Oromo Resist the Master Plan? Available at https://advocacy4oromia.org/articles/why-do-the-oromo-resist-the-master-plan/.
52 Land in Ethiopia is owned by the federal state, there is no private land ownership. The federal state provides only long-term lease agreements to the tenants.
53 My experiences show that the idea of side-lining was not only confined to Oromia, even in Tigray and Amhara, the resentments were present.
the stakeholders if indeed they were involved and at which stage of the projects. I achieved this by employing referral sampling (see section 3.4.1) which entails asking stakeholders to identify other stakeholders they worked with or engaged in the negotiations, implementation and management of the two wind farms. Secondly, I wanted to immerse myself in the social, cultural, political and economic context of the phenomena I was studying (Hammersley & Atkinson, 2007). This emic approach allowed me to understand how Ethiopians and local Chinese (those based in Ethiopia) enterprises constructed, produced and interpreted the meaning of interactions in the wind farms. Additionally, the study of negotiation processes and modalities of engagement in decision making cannot be observed by tapping into official policy positions, but by “painstaking in-depth fieldwork” which required considerable time (Lee, 2013, p. 2).

Thirdly, I wanted to gain trust and establish rapport with institutions I was researching. In every institution, some gatekeepers blocked or provided access to my targeted research participants (Johl & Renganathan, 2010). Some of these gatekeepers were individuals and institutions. The more time I spend interacting with them, the better I began to understand their institutional agendas, interests, values and ideologies which I later exploited to my advantage (Johl & Renganathan, 2010). Gaining access to the institution did not loosely translate into gaining access to the targeted research participants. In most cases, gaining access to targeted research participants was more demanding, complex and required a high level of skills and tactics than for gaining access at an institution level. Mostly, the targeted research participants needed assurance that their participation in the study was not going to jeopardise their work and relationship with their superiors. This was primarily the case, especially in Adama area. For such reasons, targeted research participants would take often longer than expected to accept electronically distributed invitation letters. Some accepted only face to face invitations, of course after three or four times of knocking at their doors. Finally, writing and approval of introductory or support letters targeted to each stakeholder was a long process. These letters were written in English and translated to Amharic, Tigrigna, Afaan Oromo and Mandarin. They had to be reviewed to check if the information provided in those letters was not political and ‘damaging’ and had to go through several ‘hands’ before being approved and put on the official letterhead. For these reasons, it was justified spending nine months in the field.

3.4 Data and methods for data collection
Researching engagement and decision-making patterns is challenging. It requires one to consult from several sources of data, and adoption of multiple data collection techniques. Generally, access to official data from the relevant authorities involved in Africa-China
engagements is a challenge\textsuperscript{54}(CHINAFRICA Project, 2013). In the context of this case study, quantifiable data was difficult to obtain, and where it existed was incomplete making it unreliable. The Chinese and Ethiopians rarely publish such data, making it difficult to adopt a quantitative research design. As a result, a qualitative research design guided data collection and analysis in this study. The central justification for adopting the qualitative research design relates to complementarity and completeness of the approach in understanding the agential dimensions of the Ethiopia actors when interacting with the Chinese. Conclusions about African agency in this study are relational and context-dependent and cannot be arrived at by "just recycling aggregate statistics or official policy announcements" (Lee, 2013, p. 2).

Primary and secondary sources of data largely collected from the field are used in this research. Access to some of the technical documents had its challenges. In some cases, I was given copies of the confidential documents and in others I was only granted access to review them in the office under strict monitoring. Other sources of data were obtained from the internet, books, media outlets, reports and policy documents which are publicly available and accessible. The main documents reviewed in this study are:

i. Literature (academic; media; archival; policy; reports) on Africa (Ethiopia)-China relations was consulted to gain a broader understanding of the area studies context;

ii. Tender invitation and bidding documents were consulted to review and corroborate evidence of Ethiopian stakeholders' request for the projects, terms of references and circumstances under which the contracts were awarded;

iii. The project cooperation agreements were consulted to review the project terms and conditions and also understand the level and nature of Ethiopian agents' participation;

iv. Technical documents (contract agreement; particular conditions of contract; general conditions of contract; employer's requirement; contractor's proposals (commercial, technical, and financial); feasibility study report, and environmental and social impact assessment report were consulted to understand the structure of the agreements;

v. Project management reports during construction, operation and maintenance of the two wind farms were consulted to review project implementation processes and dynamics, labour relations, challenges and successes;

vi. Project commissioning and capitalisation reports were consulted to review completed project implementation, successes, challenges and way forward.

\textsuperscript{54} As mentioned by Deborah Brautigam "this is not easy research to do. The Chinese have been having such bad press that they're very reluctant to speak. It's very hard to get interviews [...] I face the same difficulty with high-level African politicians" (CHINAFRICA Project, 2013).
3.4.1 Sampling procedures

Sampling is the process of selecting a representative sample from the total population of the study (Morse, 2004; Robinson, 2014). It is done to ensure tight control of the study participants for objectivity and economic (time and resources constraints) reasons. Participants for this study were carefully and purposefully selected using referral and judgemental/purposive sampling techniques. Referral, also called snowballing sampling technique, is defined as the sampling procedure in which the researcher continuously ask respondents for additional research participants who were involved in the study under research (Showkat & Huma, 2017). As I intended to reconstruct the cases, I targeted ‘experts’, ‘high-level’ actors, and ‘affected community members’, who were difficult not only to identify but also to access. It was through snowballing that such challenges were addressed. Respondents were at liberty to participate in the study having been referred to me by other participants whom they had interacted with in the projects. Although snowballing proved useful in identifying and accessing the study participants, the representativeness of the research population was questionable (Babbie, 2013) until I combined it with judgemental or purposive sampling.

Judgemental sampling technique relates to the use of the research questions as a judgement mechanism to select respondents who will participate in the study (Showkat & Huma, 2017). I employed this technique to ensure that the referred respondents were representatives of the total population. The aim was to capture the most possible perspectives and views. My judgemental element emanated from a ‘tight’ (Miles & Huberman, 1994) inclusion criteria (Mason, 2010) based on (i) accessibility to research participants, (ii) knowledge of the wind farms, (iii) participation in decision making during the initiation, negotiation, implementation and project management of the wind farms, and (iv) the level and nature of impact-induced on the respondent by the development of the wind farms. Referral and judgemental sampling techniques were the most useful and impactful sampling procedures in this study as they allowed me to navigate the complex, secretive (black box), bureaucratic terrain— for high-level stakeholders, and also emotive terrain—for villagers, farmers, the majority of which lost their pieces of land to make way for the wind farms. Table 3.1 below shows the research participants’ database and sample size.

Table 3.1 Research participants

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>UNIT</th>
<th>MALE</th>
<th>FEMALE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Union</td>
<td>AUC</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MOWIE</td>
<td>8</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

55 Some farmers who were negatively affected by the construction of the wind farms, especially in the case of Adama 2, were difficult to identify and access perhaps because of fear of intimidation from authorities, if for what so ever reasons they wanted to go public about it.
| **Ethiopian federal state institutions** | MOFEC/D | 1 | 1 |
| | MEFCC | 1 | 1 |
| | ESLSE | 1 | 1 |
| | MFA | 2 | 2 |
| | EEU | 1 | 1 |
| | EEP | 13 | 13 |
| | EIC | 2 | 2 |
| **Ethiopian regional state institutions** | Oromia regional state | 2 | 2 |
| | Tigray regional state | 1 | 1 |
| **District level administration** | Adama Woreda | 2 | 2 |
| | Lome Woreda | 1 | 1 |
| **Ward level administration** | Jogo Gudedo Kebele | 5 | 1 | 6 |
| | Bubisa Kusaye Kebele | 3 | 1 | 3 |
| | Mele-mele Kebele | 2 | 2 |
| | Tede-dildima Kebele | 2 | 2 |
| | Adama Kebele | 9 | 5 | 14 |
| | Qachema Kebele | 10 | 1 | 11 |
| | Mukiye Kebele | 3 | 1 | 4 |
| | Kobolito Kebele | 1 | 1 | 2 |
| | Sire-robi Kebele | 1 | 2 | 3 |
| **Non-governmental organisations in Ethiopia** | Oxfam International-Africa-China Dialogue Platform | 1 | 1 |
| | Forum for Environment | 1 | 1 |
| **Energy consultancy in Ethiopia** | Private Energy Enterprise | 1 | 1 |
| **Media institutions** | Addis Fortune English Edition | 1 | 1 |
| | The Reporter English Edition | 2 | 2 |
| | Xinhua News Agency English Edition | 1 | 1 |
| **Chinese government institutions** | MFA | 1 | 1 |
| | Chinese Embassy in Addis Ababa | 1 | 1 |

56 Spoken to the official at a highly informal level
Chinese Consular in Addis Ababa | 1 | 1<sup>57</sup>  
---|---|---
**Chinese private and quasi-state enterprises** | |  
HydroChina | 3 | 3  
CGCOC | 1 | 1 | 2  
Goldwind | 2 | 2  
**Academic institutions** | |  
AAU | 6 | 6  
MU | 1 | 1  
ASTU | 1 | 1  
Ethiopian Foreign Relations Strategic Studies Institute (EFRSSI) | 2 | 2  
University of St Andrews & Renmin University of China | 1 | 1  
Zhejiang Normal University | 1 | 1  
**African Development Bank** | |  
African Development Bank (AfDB)-Ethiopia country office | 1 | 1  
**Embassy in Ethiopia** | |  
British Embassy in Ethiopia | 1 | 1  
**Total** | **101** | **15** | **116**

### 3.4.2 Interviews
This study used interviews as a tool for gathering primary data. Use of interviews was important because it allowed me to unpack participant’s perceptions and views based on their engagement experiences before, during and after the development of the two wind farms. As part of critical realist and interpretivist paradigms, the interview approach was a flexible (Young et al., 2018) data gathering tool. It “encourage[d] respondents to talk freely often around emotionally<sup>58</sup> loaded topics in order to gain insight into how people feel and think about the research topic under investigation” (Roberts, 2014, p. 5). Also, interviews allowed me to probe further the responses which were given by the respondents. It was established that interviews were “more attuned to the messiness and openness of real social life which inevitably affect[ed] the outlook of respondents in their everyday lives” (Roberts, 2014, p. 5). As a result,

<sup>57</sup> Spoken to the official at a highly informal level  
<sup>58</sup> Farmers who were dispossessed from their land
I was able to gain a more profound and detailed insight (Young et al., 2018) of how the respondents constructed meaning and attached value to the engagements.

Unstructured and semi-structured interviews were used as instruments to collect primary data. An unstructured interview relates to open-ended questions posed in a conversational mode between the interviewer and the interviewee. An unstructured interview encompasses probing complex aspects of the phenomenon under inquiry without imposing categorisation which leads on or “impose[s] an interpretation on the situation” (Patton, 2002, p. 343). Unstructured interviews were helpful because they exposed me to unanticipated themes but required too much time during the interview process. It also entailed strict control, direction and pace of the conversation. Due to this limitation, semi-structured interviews were also used. A semi-structured interview is defined as a combination of both open-ended and close-ended questions posed by the interviewer to the interviewee in a conversational manner. They are ‘open’ which allows flexibility and closed to limit the respondents’ choices/answers to the options provided by the interviewer.

I applied unstructured and semi-structured interviewing techniques to gather data from elites, experts and ordinary people who met the inclusion criteria I had set. In this study, *elite interviews* are defined as an interview process between the interviewer and an individual or a group of powerful actors who have the capacity, credibility and ability to influence choice and decision making in an intervention (Harvey, 2010, 2011). Elites also control material, symbolic and political resources to effect change which is usually deployed through institutions to safeguard and promote their interests, values, ideology and preferences. The elites were drawn from TPLF-EPRDF, executive management of public utilities and ministries (EEP, EEU, MOWIE, MFA); and the C-MFA African Affairs Department who provided valuable information on critical decisions. Aside from elites, I also interviewed *experts*, who in the context of this study are individuals or a group of people who held technical/professional and functional/obligatory related knowledge about the implementation processes of the two wind farms (Audenhove, 2017; Dexter, 2006; Littig, 2013). The experts were from MOWIE, MOFEC, MEFCC, MFA and public utilities (EEP, EEU, ESLSE) and Chinese quasi-private and state-owned enterprises—CGCOC, HydroChina, Goldwind) and some from AU, academics; Oromia regional state Woreda and Kebele administration levels (see table 3.1). During the fieldwork, I noticed the difference between elites and experts. The elites were more powerful, and the experts were more knowledgeable (Audenhove, 2017). Besides the two groups of participants, I also interviewed ordinary people in the Kebeles where the wind farms are located to ensure that no voices, perspectives and opinions were neglected.
A total of 116 respondents participated in both unstructured and semi-structured interviews (see table 3.1). Each interview would take on average between 45-90 minutes dependent on the participants’ willingness to talk and the researcher’s control of the interviewing process. The unstructured and semi-structured interviews were used to respond to all three sub-questions, although the former was used precisely on the third question which was probing the local development impacts of the two wind farms. I did not want to be suggestive of the impacts of the two wind farms. The first theme covered the factors or motivations which led both Ethiopian and Chinese stakeholders to develop the two wind farms. The second theme covered the negotiation and decision-making processes between Ethiopian and Chinese stakeholders. The last theme covered the local development impacts of Chinese involvement in the financing and construction of the two wind farms.

Several approaches were used to recruit and gain access to potential research participants. Most of the participants were recruited through face to face means. I would physically visit the offices/homesteads/communities of the possible participants. Most of the Ethiopian stakeholders preferred face to face recruitment as it gave them the chance to personally vet me before they could accept to participate in the study. It should be noted that the Chinese stakeholders who participated in this study were interviewed either in Ethiopia or South Africa. This was for two main reasons. Firstly, the researcher was interested in constructing and presenting an argument informed by African social realities on Africa-China relations. Secondly, gaining access to Chinese stakeholders in China was challenging. After several emails and phone calls, no potential respondents replied to my invitations. However, this is not unique in Africa-China relations research (CHINAFRICA Project, 2013). Most Chinese actors are not willing or interested in participating in studies which question their engagements in Africa because of the ‘bad press’ fear. As such, I did not conduct fieldwork in China. However, I also observed that most China-based stakeholders often hold limited information and knowledge on Chinese projects in Africa. As alluded to by Brautigam, Chinese stakeholders in Beijing “have little or no practical experience of how the projects work in Africa” (Ibid, p.1).

Apart from face to face participant recruitment procedures, electronic recruitment through various technological platforms such as Electronic Mail and social media networks—LinkedIn, WhatsApp, Facebook, Twitter, and WeChat (especially for Chinese participants) were used although the acceptance rate was poor. The Chinese in Africa and Africans in China WeChat and Google Group were very useful as they provided up to date information with regards to research on Africa-China relations. Occasionally, there were also intellectual engagements which further enlightened me on broader Africa-China relations. It was again through the platform that I met two Chinese students (Ma Jie and Weiwei) who were researching on
Ethiopia-China relations in agriculture and manufacturing sectors. The two Chinese students assisted me with negotiating access to Chinese stakeholders in Ethiopia.

3.5 Data capture, analysis and presentation
Primary and secondary data were captured using various methods. For document-based data, ‘notes’ in the form of reviews were used. During the interviewing process, I asked the participants whether they consented to be tape-recorded or not, in which a majority willingly and voluntarily accepted (see appendix 3.2; 3.3). This was perhaps because the subject/topic that I was investigating was less sensitive, or participants saw nothing damaging to the status quo of the authorities, except on a few occasions when I rigorously questioned compensation, bidding and tendering procedures. Nonetheless, some participants declined to be tape-recorded and only allowed me to take notes especially on project bidding and tendering procedures. In such cases, after the interview, I would go through the notes together with the participant where he or she would confirm the notes, add or ask for certain words or sentences to be removed. A case in point is when I was interviewing experts from EEP who were involved in the early phases of negotiations in the two projects. High-level negotiations are always kept a secret, and very few participants were willing to ‘just talk’ about that let alone be recorded. Those recorded interviews were then transcribed from audio to Microsoft Word format and then uploaded to NVivo 11 Plus for coding and analysis.

In this thesis, I used two methods to analyse the data collected: content and thematic. Use of content and thematic analysis is consistent with critical realism and interpretivism paradigms. The two methods were chosen to analyse the data as they are complementary in the sense that content analysis, “focuses more on the frequency of occurrence of various categories”, while thematic analysis, specialises on “identifying themes and building up the analysis in the most cohesive manner” (Yadv, 2016, p. 1). The two methods provide more in-depth analysis of the data (Clarke & Braun, 2017). Content analysis is defined as the process of identifying words or concepts and their relationship in the data, then make interpretations on their meaning about research questions or research objectives (Creswell, 2003; Vaismoradi, Jaqueline, Turunen, & Snelgrove, 2016). The content analysis relates to the systematised nonlinear, often complex coding and categorisation as a means to explore “large amounts of textual information unobtrusively to determine trends and patterns of words used, their frequency, their relationships” (Vaismoradi, Turunen, & Bondas, 2013, p. 400). Furthermore, it is suggested that content analysis is concerned with the description of the what, to whom, and with what effect characteristics of the text (Bloor & Wood, 2006). Thematic analysis is defined as “essentially a method for identifying and analysing patterns in qualitative data” (Clarke & Braun, 2013, p. 123). Consistent with all other studies which use thematic analysis, I follow six phases suggested by Clarke & Braun (2006, pp. 77–101) in which I had to: (i)
familiarise and immerse myself with the data\textsuperscript{59}, (ii) code the data and generate brief but detailed labels for important features of the data of relevance to the research question\textsuperscript{60}, (iii) search for themes, (iv) review the themes\textsuperscript{61}, (v) define and name the themes\textsuperscript{62}, and finally, (vi) writing up\textsuperscript{63}.

3.6 Towards reliability and validity
While reliability and validity are methodological practices often associated with largely traditional quantitative studies (Hammersley, 2007), the two have also found way into qualitative studies—albeit, for some, having acquired different names (for example, ‘trustworthiness’, ‘credibility’, and ‘dependability’) for different reasons (Lincoln, 1995, p. 277). At the same time, some researchers have rejected the use and applicability of quantitative studies quality assessment criterion to qualitative studies because of incompatibility between ontological and epistemological paradigms (Schwandt, 1996; Smith & Deemer, 2000). In other accounts, some studies have gone to the extent of questioning the ‘necessity’ of assessment criterion (Clarke & Braun, 2017; Hammersley, 2007). Regardless of the debates on which terminology and the necessity of validation, it is imperative that every scientific study should be subjected to a form of assessment to ensure credibility and reliability of the findings (Creswell & Miller, 2000). As part of critical realism and interpretivism, I have adopted reliability and validity as terms of reference.

Reliability relates to “the extent to which the results of a study or a measure are repeatable in different circumstances” (Roberts & Priest, 2006). A case study research approach is designed to collect bounded exploratory information and findings are in themselves difficult to replicate and by extension generalise. Meanwhile, in this study, social settings cannot be replicated for several reasons. First, the majority of the elites and experts who participated in this study had changed jobs where some have switched to the private sector and others to different sectors. These relocations together with fading memories of what transpired, challenges replicability. Second, as is the case on researching Africa-China relations, access to participants is highly

\textsuperscript{59}According to Clarke & Brain (2006) the researcher must immerse themselves in, and become intimately familiar with, their data; reading and re-reading the data and noting any initial analytic observations.

\textsuperscript{60}“Coding is not simply a method of data reduction, it is also an analytic process, so codes capture both a semantic and conceptual reading of the data. The researcher codes every data item and ends this phase by collating all their codes and relevant data extracts” (ibid).

\textsuperscript{61}“Involves checking that the themes ‘work’ in relation to both the coded extracts and the full data-set. The researcher should reflect on whether the themes tell a convincing and compelling story about the data and begin to define the nature of each individual theme, and the relationship between the themes” (ibid).

\textsuperscript{62}“The researcher should ask ‘what story does this theme tell?’ and ‘how does this theme fit into the overall story about the data?’ (ibid).

\textsuperscript{63}“Writing-up involves weaving together the analytic narrative and data extracts to tell the reader a coherent and persuasive story about the data and contextualising it in relation to existing literature” (ibid).
dependable on personal networks which are time intensive to build. As a result, finding the right people to talk to is challenging. Despite that, a focus on Ethiopia as a country case study and Adama wind farms as energy sector case studies makes it impossible to isolate my study from other studies on Africa-China relations which are shaped by narratives and discourses that consciously and sub-consciously homogenise Africa, and or Africa-China engagements. This research is therefore essential and presents an opportunity for analytical replication and generalisation.

While reliability is concerned with replication, validity concentrates on the accuracy of findings, or tools employed to measure the phenomena investigated (LeCompte & Goetz, 1982, p. 32). Validity relates to how well and accurately do the findings “represent participants’ realities of the social phenomena” (Creswell & Miller, 2000, p. 124). In order to achieve the reliability and validity of this study findings, I followed several procedures as explained below. The first technique was “intensive engagement with data” (Roberts & Priest, 2006, p. 44). Intensive engagement with the data is defined as the processes of moving forward and backwards between the data and the researcher’s coded interpretations and generated themes. In line with data-driven analysis adopted in this study, I did not impose pre-conceived ideas and categorisations. This was necessary for objectivity reasons (Yardley, 2017). The second technique was tape-recording of the interviews and co-production of interview notes with the participants through “respondent validation” (Roberts & Priest, 2006). While I acknowledge that interviews are interpersonal and biases cannot be ruled out, I created rapport and generated trust with the participants. Because I was referred to them through snowballing, most participants were open and honest during the interviewing process. However, honesty cannot be guaranteed, and for that, I employed triangulation—implying the use of multiple sources of data, multiple methods of data collection, and multiple methods of data analysis. Finally, the validity and reliability of findings were ensured by a transparent discussion of the methodological process employed to arrive at the conclusions reached (Yardley, 2017). Transparency here implying being open to: (i) how the participants were recruited, selected and interviewed, (ii) the selection and justification of the case studies, (iii) the research context and the theory employed, (iv) methods for data analysis and their justifications, (v) use of verbatim references/examples of participants responses, and (vi) “prolonged engagement in the field” (Creswell & Miller, 2000, p. 127) during data collection for emersion and data saturation.

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64 The positionality of the researcher affects how the research participants ‘open-up’. Because of positionality, it is likely impossible to achieve almost similar results in almost similar contexts as “other researchers will fail to obtain comparable findings unless they develop corresponding social positions or have research partners who can do so (LeCompte & Goetz, 1982, p. 37).
3.7 “Outsider but insider”: positionality and reflexivity
How and to what extent does positionality affect the outcomes of a study? Positionality relates to how a researcher is situated and embedded inside or outside the social phenomenon under investigation. As a researcher, I was aware of three significant positionalities operating at different but interrelated levels. The first being the personal positionality which looks at the aspects of individual preferences, motivations and knowledge. These personal positionalities influence the choice of a topic. The second is professional positionality which affects my research practices and perceptions of participants. The final is disciplinary positionality which relates to researchers’ stance towards theory, methods and epistemological politics (Wilkinson, 1988 cited in (Gough, 2017, p. 311). For analytical considerations, I discuss these three positionalities concurrently.

My insider’s perspective emanated from two standpoints: (i) the ten months I spent in Tigray at Mekelle University between 2014-2015, which allowed me to develop an understanding of the cultural, social, political and economic aspects of Ethiopia’s relations with China, and (ii) being an African researching on Africa (Ethiopia)-China engagements. This insider positionality played out well during the fieldwork as it helped me to negotiate access and establish rapport with the majority of Ethiopian and Chinese stakeholders. From the Chinese side, they considered me as Ethiopian, and that indirectly pushed them to open up on critical conversations. I doubt some of the responses I got would be the same for an outsider. Being African in this regard was helpful, it gave me a first-hand emic information and understanding (Chidarikire, Cross, Skinner, & Cleary, 2018) of not only the missing African narrative to Africa-China relations but also access to confidential information. Although I was an insider, I was also, by and large an outsider. Ethiopia-China engagement in wind energy infrastructure financing and development is a new field of study for me. I am not Ethiopian or Chinese, so how was I in a position to fully understand the social realities and the lived experiences of participants of the study? To bridge the gap between an insider/outsider, I employed reflexivity. Reflexivity is defined as a process of “continual internal dialogue and critical self-evaluation of positionality as well as active acknowledgement and explicit recognition that this position may affect the research process and outcome” (Berger, 2015, p. 220). I, therefore, practised reflexivity by situating the research in the larger context of Africa-China relations which then guided me during data collection and analysis, and interpretation of the findings of the study (Flores, 2018). This allowed me to carry out this research from a participants’ lived experiences angle, without imposing my ‘will’ or ‘categorisations’ on the findings of the study.

I am aware of the shortcomings of this. Participants may tell you what you want to hear—defeating objectivity.
3.8 Politics of knowledge production around Africa-China engagements

Narratives, opinions and assumptions play an important role in influencing attitude and behaviour on conducting field-based research, and also broadly, the researchers and the researched understanding of the context where engagements occur. Not all narratives are uniform, true or false, and have differentiated impact. They bring positivity and negativity, courage and fear, hope and despair. Knowledge production around Africa-China engagements is political in the sense that geopolitical, ideological and economic factors (Mohan, 2008) weigh in on assessing two interrelated questions: (i) what is China doing in Africa and (ii) how does that impact the Western world’s supposed sphere of influence. It is political because “knowledge production and dissemination operate within specific political trajectories that may constrain or promote it” (Nyanchoga, 2014, p. 37). It is not surprising that a majority of Western media outlets and government institutions tend to demonise Chinese activities in Africa for various reasons. As noted “Western companies (actors) have gradually lost ground in the African market,” (Global Times, 2018, p. 1). This partly comes from the belief that Africa is a Western zone of influence. As a result, Western media outlets have generated discourses and narratives that tarnish China’s global image.

Due to lack of empirical and rigorous research on Africa-China engagements, a majority of media and some government institutions speculate narratives in which few bad or negative examples of Chinese activities in Africa are cherry-picked and used to generalise its whole engagement with Africa. These criticisms are valid and justified, but they are embedded and entrenched in narratives that otherwise “represent Western approaches as morally and ethically superior” (Mohan, 2008, p. 156). The question is who becomes qualified here to discredit the ‘other’? The point is that both China and the West may have illicit, even illegal and at times questionable approaches when engaging Africans. Such honours of questioning the morality and ethical standards should be left to African governments and their people. They can decide which engagements are meaningful and beneficial to their development plans.

There are several factors which lead Westerners to demonise and play the referee role around Africa-China engagements. Such factors include Chinese: (i) controversial labour practices in Africa (underpayment, overworked, and taking African jobs) (Hess & Aidoo, 2015), (ii) cheap and inferior quality goods and services which eventually crowd out local producers, (iii) Afro-Sino extraversion (corrupt collaboration between the African elites and Chinese stakeholders in infrastructure projects contracting and controversial deals in the extractive sector), and recently (iv) piling of debt to African governments (Pandey, 2018). From the beginning of this

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66 Former US ambassador Johnnie Carson remarked that China was “a very aggressive and pernicious economic competitor with no morals” in Africa (Odoom, 2011)
study, I was always aware of these narratives and how they potentially generate biases on how I viewed and gathered knowledge of Africa (Ethiopia)-China relations. Through the process of continual reflexivity and “de-linking”67 (Mignolo, 2009), I would interrogate the source, motivation, significance and quality of the data to eliminate the biases of politicised reporting on Africa-China engagements. As argued “geopolitics of knowledge goes hand in hand with geopolitics of knowing. Who and when, why and where is knowledge generated” (Mignolo, 2009, p. 160). As part of the critical realist epistemological foundation underpinning this study, I used this ‘critical’ element to critique the type and sources of data on Africa-China relations.

3.9 Fieldwork and study-related challenges
Researching multi-cultural context has several challenges (Scott, Miller, & Lloyd, 2006). My inability to speak Ethiopian languages was a major problem I encountered during fieldwork. Although I had previously stayed in Ethiopia for ten months, I had not developed speaking proficiency for Amharic, Afaan Oromia and Tigrinya. Amharic, Afaan Oromia, Tigrinya, Mandarin and English were the main languages spoken by the research participants. I hired a local research assistant, who assisted with not only translation but also with negotiating access to Ethiopian research participants who were not comfortable to be interviewed in English. Fortunately, all Chinese stakeholders I interviewed were comfortable being interviewed in English. Secondly, the theme of African agency in Africa-China relations is new with very few publications on the subject matter. At the same time, there is a limited academic scholarship on Ethiopia-China engagement in the wind energy sector. This was a challenge as there was limited literature to engage. I resorted to attending conferences to get first-hand information and debates on the topic68. Thirdly, the first phase of fieldwork fell into the State of Emergency period in Ethiopia which made it difficult to visit and access certain places because of personal security reasons. This also affected some respondents’ acceptance of an invitation to participate in the study because of increased civilian surveillance by the Command Post.

Fourthly, while I acknowledge the multiplicity of Chinese stakeholders around Ethiopia-China relations, only African (the majority in Ethiopian and one in South Africa) based Chinese government institutions, state and semi-state owned and private enterprises involved in the two wind farms participated in this study. The justification for sticking to African based Chinese actors was informed by the challenges of accessing the China-based stakeholders. Several emails and calls were made to C-EXIM Bank and SANY Group but with no success. However, the absence of the two Chinese actors’ perspectives did not undermine the findings of the

67 De-linking here relates to challenging and if need be, as Mignolo (2009, p. 161) suggests, disobedience to the narratives that are entrenched and situated in the thinking of superiority of Western morals and ethics of engagement.

68 For this I am very grateful to Wei Shen and Folashádé Sólélé-Kohndou short conversations during the 2016 Development Studies Conference, and 2019 Oxford University China-Africa Network Conference at Oxford University.
study as much of the information was obtained from other sources. Precisely, HydroChina and CGCOC provided valuable information that detailed the role of C-EXIM Bank and SANY Group in the two projects. Also, additional information was obtained from the contractual documents and Ethiopian stakeholders. Fifthly, I had to carefully navigate and reflect on the ‘official’ versus ‘unofficial’ positionalities of the respondents. Elites presented an official position while middle to lower level experts would sometimes provide a contradictory position to their superiors. This presented a learning opportunity, and I used that to evaluate the implications and significance of the two positionalities and identify the best possible representation of the phenomena I was investigating. Finally, there is a huge gender misbalance as more men participated in this study than females. Top decision-making positions in Ethiopia and also China in the context of this study were men. However, from the community perspective where the wind farms are located, a considerable number of women participated in the study. This could be explained by the entrenched patriarchal system in African societies, and probably in China where women empowerment is lagging, and institutions tend to under-employ women in key positions.

3.10 Ethical considerations
This study involved interviewing people who were either involved in key decision-making processes with regards to the brokering, negotiations and implementation, or vulnerable community members who were positively or negatively affected by the development of the wind farms. Recognising the possibilities of my research to tap into personal identity, confidential information and invocation of emotional memories of victimhood, pain, sorrow and anger, joy and happiness, I applied for an ethical review which was approved by the Open University Human Research Ethics Committee (HREC) reference number HREC/2017/2469/Chiyemura/1 (see appendix 3.1). The review process was important because contrary to the assumption that ethical considerations are concerned with the research participants’ welfare, the OU committee feedback triggered me to consider the potential risks and threats I was likely going to face in the field.

When undertaking interviews with Ethiopian and Chinese stakeholders involved in the two case studies, I would explain what the research was about, then ask for their consent to participate in the study voluntarily. I also asked if they agreed to be tape-recorded or not (see appendix 3.2 and 3.3). I would spell out the risks and potential impact of their participation and the reasons for collecting and use of data. The majority agreed verbally or by signing the consent form, some refused to sign the consent form but agreed to participate in the study. A recall of one participant, a farmer by profession goes this way: “you are here for the
information, not my signature. Why do I have to sign? I have agreed to talk with you—beke\textsuperscript{69}. I came across a few ‘experts’ who were not comfortable in being tape-recorded and preferred that I take notes. Where such cases occurred, I would respect the participants’ rights and would then go through the notes together with the participant after the interview, to ensure respondent validation. I would also ask the participants whether they were willing and comfortable with verbatim quotations in the text with their names. The majority were not comfortable with the use of their actual names and requested that I should use pseudonyms as part of the confidentiality and anonymity clause of the Informed Consent form (see appendix 3.3).

3.11 Chapter summary
I have discussed the methodological imperatives undertaken to answer the research questions. I have explained critical realism and interpretivism as two epistemological paradigms guiding how I view, collect, analyse, interpret and write the findings of this study. Process tracing was identified as an important methodological process that helped me to reconstruct the case studies following a sequential narrative. A case study design was discussed identifying and providing the rationale of why Ethiopia and the two wind farms were chosen. This study relies heavily on interviews and document reviews as dominant sources of both primary and secondary data. The research’s findings are reliable and valid because of the use of the triangulation technique. Recognising the fact that knowledge is situated and hence a construction, I critically and continuously reflected on not only the methodological imperatives of data collection and analysis but also broader geopolitical, economic and ideological factors that influence knowledge production around Africa-China relations. This criticality allowed me to identify and de-link knowledge that seeks to demonise China and present Western approaches and activities in Africa as moral and ethically superior. I conclude the chapter through a discussion of ethical considerations that guided me in this research. In the next chapter, I explore Ethiopian state, society and development orientation and how that laid the foundation for relations with China.

\textsuperscript{69} Amharic word, which in this context means enough.
Appendix 3. 1 Open University ethics clearance certificate

Human Research Ethics Committee (HREC)

From  Dr Duncan Banks, Deputy Chair
       The Open University Human Research Ethics Committee
Email  duncan.banks@open.ac.uk
Extension  (6) 59198

To  Frangton Chiyemura, FASS
Project title  Exploring the role of African agency in Ethiopia-China engagement in wind energy infrastructure investment.
HREC ref  HREC/2017/2469/Chiyemura/1
AMS ref  n/a

Date application submitted:  23/02/17
Date of HREC response:  15/03/17

Memorandum

This memorandum is to confirm that the research protocol for the above-named research project, as submitted to the OU HREC for ethics review, has been given a favourable opinion by the HREC review panel.

Please note the following:
1. You are responsible for notifying the HREC immediately of any information received by you, or of which you become aware which would cast doubt on, or alter, any information contained in the original application, or a later amendment which would raise questions about the safety and/or continued conduct of the research.
2. It is essential that any proposed amendments to the research are sent to the HREC for review, so they can be recorded and a favourable opinion given prior to any changes being implemented (except only in cases of emergency when the welfare of the participant or researcher is or may be effected).
3. Please include your HREC reference number in any documents or correspondence, also any publicity seeking participants or advertising your research, so it is clear that it has been reviewed by HREC and adheres to OU ethics review processes.
4. You are authorised to present this memorandum to outside bodies such as NHS Research Ethics Committees in support of any application for future research clearance. Also, where there is an external ethics review, a copy of the application and outcome should be sent to the HREC.
5. OU research ethics review procedures are fully compliant with the majority of grant awarding bodies and where they exist, their frameworks for research ethics.
6. At the conclusion of your project, by the date you have stated in your application, you are required to provide the Committee with a final report to reflect how the project has progressed, and importantly whether any ethics issues arose and how they were dealt with. A copy of the final report template can be found on the research ethics website - http://www.open.ac.uk/research/ethics/human-research/human-research-ethics-full-review-process-and-proforma#final_report

Best regards,

Dr Duncan Banks, Deputy Chair
The Open University Human Research Ethics Committee

http://www.open.ac.uk/research/ethics/

www.open.ac.uk/research/ethics/  March 2015
Appendix 3. 2 Research participant information sheet

RE: Invitation to Participation in a Study

Project Title: Exploring the Role of African Agency in Ethiopia-China Engagement in Wind Energy Infrastructure Investment

TO WHOM IT MAY CONCERN

My name is Frangton Chiyemura and I am a PhD Student in the Development Policy and Practice Group in the Faculty of Arts and Social Sciences at the Open University, United Kingdom. I am carrying out research on Chinese Investments in Adama 1 and Adama 2 wind energy projects in Adama, Ethiopia. This research is being supervised by Prof Giles Mohan, Dr Neil Edwards and Dr Richmond Atta-Ankomah of The Open University’s International Development and Inclusive Innovation Strategic Research Area. From this research, insights will be gained into the patterns, processes and impacts of Chinese investments in Ethiopia’s wind energy sector. By delving deeper into these issues, we will be able to contribute to knowledge pertaining to Ethiopia-China engagement in wind energy, and also potentially contribute to debates and discussions around policy and practice in the wind energy sector.

In this regard, we are inviting you to participate in our research specifically because of your rich experience with regards to the issues under study in this research. Frangton Chiyemura will be conducting the interview and information collected will be used for his PhD qualification at the Open University. The interview will take approximately 45-60 minutes and would be conducted at a location you prefer, and at a date and time that is convenient to you.

Your participation will be treated in strict confidence in accordance with the Data Protection Act. Information collected from all participants will be kept anonymous and stored securely. Only the student and the project supervisors will have access to the data. There are no wrong answers; all we need to know is your opinions and experiences. Your participation is entirely voluntary and as a participant you can withdraw from the interview at any time.

If you agree to take part in this study, we would kindly ask you to sign the consent form. We would appreciate if you could get back to us in 2 weeks’ time, after which we would consider your unavailability to participate in the study. Should you have any queries or need for further clarity about participation in this study, please feel free to contact us on the contact details provided below.
## Appendix 3. 3 Research participant consent form

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<table>
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<tbody>
<tr>
<td><strong>Research Participant Consent Form</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Project Title:</strong></td>
<td>Exploring the Role of African Agency in Ethiopia-China Engagement in Wind Energy Infrastructure Investment</td>
</tr>
<tr>
<td><strong>Name of participant (Optional):</strong></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>I consent to participate in this research, the details of which have been explained to me, and I have been provided with a written statement in plain language to keep.</td>
</tr>
<tr>
<td>2.</td>
<td>I understand that my participation will involve an interview and I agree that the researcher may use the results as described in the plain language statement.</td>
</tr>
<tr>
<td>3.</td>
<td>I acknowledge that:</td>
</tr>
<tr>
<td></td>
<td>a. the possible effects of participating in this research have been explained to my satisfaction</td>
</tr>
<tr>
<td></td>
<td>b. I have been informed that I am free to withdraw from the project without explanation or prejudice and to request the destruction of any data that have been gathered from me until 30 November 2017 after which the data will be transcribed and anonymized. After this point data will have been processed and it will not be possible to withdraw any unprocessed data I have provided</td>
</tr>
<tr>
<td></td>
<td>c. the project is for the purpose of research</td>
</tr>
<tr>
<td></td>
<td>d. I have been informed that the confidentiality of the information I provide will be safeguarded subject to any legal requirements</td>
</tr>
<tr>
<td></td>
<td>e. I have been informed that with my consent the data generated will be stored at Open University in Milton Keynes and will be destroyed after 5 years</td>
</tr>
<tr>
<td></td>
<td>f. If necessary any data from me will be referred to by a pseudonym in any publications arising from the research</td>
</tr>
<tr>
<td></td>
<td>g. I have been informed that a summary copy of the research findings will be forwarded to me, should I request this.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>I consent to this interview being audio-taped/video-recorded</strong></td>
<td>□ yes □ no</td>
</tr>
<tr>
<td>(Please tick)</td>
<td></td>
</tr>
<tr>
<td><strong>I wish to receive a copy of the summary report on research findings</strong></td>
<td>□ yes □ no</td>
</tr>
<tr>
<td>(Please tick)</td>
<td></td>
</tr>
<tr>
<td><strong>Participant signature:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Date:</strong></td>
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</tbody>
</table>

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**Franston Chiyemura**  
PhD Student  
Development Policy and Practice Group  
Faculty of Arts and Social Sciences  
E-Address: franston.chiyemura@open.ac.uk  
Mobile: +251966746024 (Ethiopia)

**Professor Giles Mohan (Student Supervisor)**  
Professor of International Development  
Development Policy and Practice Group  
Faculty of Arts and Social Sciences  
E-Address: giles.mohan@open.ac.uk  
Tel: 0044 1908 653554
Appendix 3. 4 Mekelle University support letter English version

TO WHOM IT MAY CONCERN

SUBJECT: Support letter for Mr. Franston Chiyemura’s PhD research

This is to confirm that Mr. Franston Chiyemura is a full-time postgraduate student in the Development Policy and Practice Group at The Open University, United Kingdom. For the purpose of his fieldwork research, he is hosted under our institute - the Institute of Climate and Society of Mekelle University. Mr. Chiyemura is undertaking a three-year piece of research for his doctorate on investments in Ethiopia’s wind energy sector entitled “Exploring the role of African Agency in Ethiopia-China engagement in wind energy infrastructure investment. Mr. Chiyemura’s research involves a study of the Adama I and Adama II wind farms and he wishes to understand the decision-making dynamics behind these projects as well as their impacts on local development. He is an outstanding and hardworking student. As his advisor in Ethiopia, I would very much appreciate any assistance you can give Mr. Chiyemura to properly pursue his research.

Please do not hesitate to contact me should you require further information.

Yours faithfully,

[Signature]
Appendix 3. 5 Mekelle University support letter Amharic version
Appendix 3. 6 Addis Ababa University support letter English version

23 May 2017

To Whom It May Concern

Subject: Support letter for Mr. Frangton Chiyemura’s PhD research in Ethiopia

This letter serves to confirm that The College of Business and Economics and the academic authority of Addis Ababa University are hosting and providing local affiliation for Mr Frangton Chiyemura’s [a PhD Research Student at The Open University, United Kingdom] fieldwork research visit to Ethiopia under the supervision of Prof. Alemayahu Geda of the Department of Economics.

Mr. Chiyemura’s research involves a study of the Adana I and Adana II wind farms and he wishes to understand the decision-making dynamics behind these projects as well as their impacts on local development. We also take this opportunity to recommend this project as it contributes to our better understanding of the Sustainable Development impacts of wind energy projects in Ethiopia. We confirm that Frangton is qualified and motivated to carry out and complete the research as planned, and his research project is in line with the Department’s/College’s research agenda.

With this letter, we would very much appreciate any assistance you can give Mr. Chiyemura to properly pursue his research.

We thank concerned institutions in advance for your kind cooperation. If I can be of any further assistance, please do not hesitate to contact me.

With best regards

Alemayahu Geda (PhD)
Professor of Economics,
Addis Ababa University, Department of Economics
Central Bank of Kenya, Nairobi
The Kenyan Institute for Public Policy Research, Nairobi, Kenya
CODESERIA, Dakar, Senegal
Economic Policy Research Center, Makerere University, Kampala
African Economic Research Consortium, Nairobi, Kenya

E-mail: AG112526@gmail.com or Alemayahu.Geda@aau.edu.et
Web page: www.Alemayahu.com /Researchgate.net/profile/Alemayahu_Geda

P.O.Box 1174, Addis Ababa, Ethiopia E-mail: office@uoa.aau.edu.et Tel 251-3-223776 Fax 251-3-223774
Appendix 3. 7 Addis Ababa University support letter Mandarin version

23 May 2017

尊敬的先生/女士

主题: Frangton Chiyumura 先生博士研究埃塞田野调研支持函

亚的斯亚贝巴大学商业及经济学院、亚的斯亚贝巴大学学术委员会特此证实，来自英国开放大学的 Frangton Chiyumura 娘将在经济学院 Alemayehu Geda 教授的指导下，在埃塞俄比亚进行其博士论文的田野调研，本校为其提供指导和支持。

Chiyumura 先生的论文涉及对阿达玛一期（Adama I）和阿达玛二期（Adama II）风电场的研究，他希望能了解这些项目背后的决策动力及其对当地发展的影响。我们也借此推荐并支持这个项目，因为它将帮助我们更了解埃塞俄比亚风能项目对可持续发展的影响。我们特别确认，Frangton 有能力、有动力按计划进行和完成研究，且他的研究项目符合本系/学院的研究议程。

通过此函，我们向您为 Chiyumura 先生完成本项研究提供的任何协助表示感谢！

感谢相关机构的合作！如果有什么地方需要我的协助，或有疑问需要进一步明确，请随时与我联系。

祝您一切顺利！

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CHAPTER FOUR: ETHIOPIAN STATE, SOCIETY AND DEVELOPMENT ORIENTATION

4.0 Introduction
To understand how domestic political and socio-economic factors influence the exercise of African agency in the context of Ethiopia-China engagement in the financing and development of the Adama wind farms, it is imperative to examine the Ethiopian developmental state. As such, this chapter critically examines Ethiopia's state-society relations after 1991 when EPRDF under Meles Zenawi came into power. It traces the Ethiopian socio-political and economic development policy based on the authoritarian developmental state model adopted by Meles Zenawi's government traced from the 2001 TPLF split70. Post-2001 was an era of 'revival', of state-sponsored and sanctioned development emulating the East Asian Tigers. For TPLF, economic growth and development were an instrument for survival and legitimacy. At the same time, I argue that the apparent economic failures of the Western prescribed neoliberal policy in Africa versus the state-led economic success in East Asia (Japan, Taiwan, and South Korea) created a drive for Meles to look East. Ethiopia's emulation of the East Asian Tigers—China coincided with the internationalisation of Chinese state, quasi-state-owned and private entities. This coincidence, whether natural or planned, led Ethiopia to open and strengthen economic ties with China.

This chapter begins by discussing the Ethiopian socio-political environment since 1991. The second section of the chapter proceeds with a discussion of Ethiopia's alternative paradigm to development inclined towards the authoritarian developmental state. The third section unpacks the factors that condition and influence Ethiopia's domestic and foreign policy, and how they shape its agency. The fourth section delves into Ethiopia-China engagement in its broadest sense looking at how the cooperation emerged. It proceed with the provision of statistics and figures of the engagements since 1991. The final section offers the chapter summary.

4.1 Ethiopia: from the land of poverty and starvation to land of hope and opportunity?
Ethiopia is the oldest country in Africa with a civilisation that spans over 2000 years. It is the only African country that resisted European colonialism (except for the 1936-1941 occupation by the Italian fascist regime) when it defeated the Italians at the battle of Adowa in 1896. Demographically, Ethiopia is the second most populous country in Africa, after Nigeria, with a population estimated to be over 109 million as of 2019 and has over 85 ethnic tribes defined.

70 Split between Tewolde-Siye group and the Sebhat-Meles group in TPLF. The split was to some extent ideological, but mainly driven by corruption, nepotism and power struggle. Sebhat-Meles group emerged victorious and the Tewolde-Siye group was expelled from the party. For more see Paulos Mikias. 2001. “Ethiopia, the TPLF and roots of the 2001 political tremor”. International Conference on African Development Archives; Medhane Tadesse and John Young. 2003. TPLF: Reform or Decline? Review of African Political Economy, 30(97): 389-403
by the constitution. Oromo (34%) is the largest ethnic tribe followed by Amhara (27%), Somali (6.2%), Tigray (6.1%), Sidama (4%), Gurage (2.5%), Welayta (2.3%), Afar (1.7%), Hadiya (1.7%), and Gamo (1.5%) (World Population Review, 2019). The most common religious alignment is with Orthodox Christianity (+44%), followed by Islam (+34%), Protestant, Catholic and other traditional religions (Fiseha, 2012, p. 438). The population is young, contributing to the labour force pool, and a potential source of social and political instability should the government fail to create enough jobs. This nonetheless also implies that Ethiopia has a large market for goods and services.

From 1930 to 1974, Ethiopia was ruled by Emperor Haile Selassie I, who was finally toppled by a committee of low-ranking military officers under the leadership of Atnafu Abate popularly referred to as the Derg71 military junta. After a series of internal contestations in the Derg regime, Lt. Colonel Mengistu Haile Mariam soon rose to power after killing Atnafu Abate. The Derg regime adopted a single party state, the Marxist-Leninist Party which introduced unpopular reforms and oppressive legislations. Such reforms contributed to poor economic performance resultantly incapacitating the state to equitably distribute national resources. Most of the few resources were thus channelled to the Amhara at the expense of other ethnic groups, in particular, the Tigray72 (Gadzala, 2015b). This led to a civil war from 1974 to 1991 involving various rebel groups, with the Ethiopian People’s Revolutionary Party assuming initially, the central leadership of the revolution. From the late 70s, TPLF grew in rank and file and began assuming central leadership of the revolution by co-opting other rebel groups, later materialising in the formation of the TPLF dominated EPRDF party in 198973 (Tadesse, 2015). The TPLF coming from a rural and agrarian driven revolution subscribed to a strong ideological orientation of Maoism, later blended with revolutionary ideologies of Leninism and Marxism. Regardless of many catastrophic blows74 encountered by TPLF from the Soviet-backed Derg regime, the revolution continued which eventually led to the defeat of the Derg ushering in a Transitional Government of Ethiopia (TGE) led by Meles Zenawi (TPLF-EPRDF) in 1991 (International Crisis Group, 2009).

The dominance of TPLF in the EPRDF led to the withdrawal of other parties in the transitional government resulting in EPRDF becoming a de facto one-party state ruling Ethiopia75. As

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71 The Provisional Military Administrative Council
72 For example, replacement of Tigraen government officials by bureaucrats from the Amhara, heavy tax leving, expropriation of land and produce by soldiers.
73 TPLF; Ethiopian People’s Democratic Movement; OPDO; Ethiopian Democratic Officers Revolutionary Movement. These four parties served as an umbrella for the expanding membership of allied rebel groups. After 1991, some of the parties were neutralised and merged creating a coalition made of TPLF; OPDO; ANDM and SNNP.
74 According to oral accounts given by TPLF, more than 50 000 Tigrains died in the civil war.
75 For example, the Sidama Liberation Front withdrew and was replaced by Sidama People’s Democratic Party. Oromo Liberation Front was neutralised and replaced by Oromo Peoples Democratic Organisation. Some of the regions were merged into a
noted, “the influence of TPLF was so pervasive that its political orientation, logically became the political game of the new umbrella” (Tadesse, 2015, p. 273). This led to the adoption of left-wing policies such as democratic centralism traced from the hybrid Maoist-Leninist-Marxist ideologies which are still guiding practices today (Gerard Prunier & Ficquet, 2015). Democratic centralism entails the domination and control of the ideological, policy and organisational direction of the party, state and government by the top leadership of the ruling party (Bayu, 2019). The bottom or peripheral members of the party, state and government, are obliged to implement policies and decisions of the party elites. This results in top-down channels of accountability where only a few elites assume the responsibility to make critical decisions that affect the party, state and the government. With this approach, power becomes centralised in the TPLF-EPRDF where policy decisions reached at the top are naturally binding on all members (see table 4.1 below). This comes from the assertion that the vanguard party is best placed to understand the ‘genuine’ needs and demands of the people, and when policy decisions are made, it is always in the best interest of the masses. The party is, therefore, the state and the government which create “organisations, leaders, and vanguard elites who all spread and impose the party’s ideology” (Bach, 2011, p. 648). This ideology is resultantly “presented to both domestic and international audiences as democratic and revolutionary” (Ibid, p. 648).

Table 4.1 EPRDF party structure and peripheral allies

<table>
<thead>
<tr>
<th>Member Party</th>
<th>Congress</th>
<th>Council</th>
<th>Executive</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPLF-Tigray</td>
<td>250</td>
<td>45</td>
<td>9</td>
</tr>
<tr>
<td>Amhara National Democratic Movement -Amhara</td>
<td>250</td>
<td>45</td>
<td>9</td>
</tr>
<tr>
<td>Oromo Peoples’ Democratic Organization -Oromo</td>
<td>250</td>
<td>45</td>
<td>9</td>
</tr>
<tr>
<td>Southern Ethiopian People's Democratic Movement -Debub</td>
<td>250</td>
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<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
<td>180</td>
<td>36</td>
</tr>
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</table>

EPRDF peripheral allies

<table>
<thead>
<tr>
<th>Member Party</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afar National Democratic Party</td>
<td>Afar</td>
</tr>
<tr>
<td>Ethiopian Somali People's Democratic Party</td>
<td>Somali</td>
</tr>
<tr>
<td>Hareri National League</td>
<td>Harari</td>
</tr>
<tr>
<td>Benishangul-Gumuz People’s Democratic Unity Front</td>
<td>Benishangul-Gumuz</td>
</tr>
<tr>
<td>Gambela People’s Democratic Movement</td>
<td>Gambela</td>
</tr>
</tbody>
</table>

Source: Author compilation. The table above shows the distribution of representatives of the four core political parties of the EPRDF at the Congress, Council and Executive members levels. It also shows the peripheral allies of EPRDF drawn from five regional based political parties.
The TGE facilitated the constitution-making process and by 8 December 1994, the constitution was ratified and entered into force on 21 August 1995. In May 1991, national elections were held and in the absence of significant opposition parties, TPLF-EPRDF won (Tadesse, 2015, p. 275). On 24th August 1995, the Federal Democratic Republic of Ethiopia was announced under the leadership of Meles Zenawi as its Prime Minister and Negaso Gidado as the President (International Crisis Group, 2009). The TPLF considered a centrally administered country to be a limitation and the 1995 constitution introduced a federal state system which composed nine ethnic-based regional governments and two city-states. Drawing on Stalin’s idea of Nations, Nationalities and Peoples, the nine ethnic-based regions were allowed the right to self-determination as stipulated in section 39 of the 1995 Ethiopian Constitution (Bihonegn, 2015) These included:

“(1) an unconditional right to self-determination, including the right to secession. (2) [...] the right to speak, to write and to develop its own language; to express, to develop and to promote its culture; and to preserve its history. (3) [...] the right to a full measure of self-government which includes the right to establish institutions of government in the territory that it inhabits and to equitable representation in state and federal governments” (FDRE, 1995).

The decentralised system further divided each of the nine regions into Zones, Woredas and Kebeles to balance ethnic forces while at the same time promoting self-development and self-governance. The Ethiopian ethnic federalism, “bases key rights— to land, government jobs, representation in local and federal bodies— not on Ethiopian citizenship but on being considered ethnically indigenous in constituent ethnic states” (Mamdani, 2019, p. 1). Consistent with this ethnic and rights-based approach, the idea was to move away from an assimilationist centralisation by one ethnic group which had proved (Amhara being the example here) unjust and incapable of managing ethnic diversity. Therefore, ethnic federalism was seen (especially by TPLF) as a silver bullet to avert ethnic tensions and conflicts by creating two tiers of government—the regional and the federal. This model, therefore, contributed to regionalisation by ethnicity in which ethnonationalism became a tool for political, economic and socio-cultural mobilisation and state organisation (Kefale, 2014).

76 Because of the Amhara domination and oppression traced from Menelik II, Haile Selassie I and the Derg
77 Tigray, Afar, Amhara, Oromia, Soma, Benishangul-Gumuz, Southern Nations, Gambela and Harari. A region was further divided into Zones, Woredas and Kebeles. The Woreda and Kebele were inherited from the Derg regime.
78 Major criticisms of the model relate to how, firstly, TPLF exclusively made ethnicity the only basis of state organisation. Secondly, the right to self-determination applies only in as far as language and culture is concerned nothing else beyond these two. Thirdly, TPLF has emerged as the only centre of power undermining the promises of democracy. Fourthly, there are more than 85 ethnic groups but only 9 ethnic regions exit. Fifthly, ethnic federalism at least from 1991 onwards, became a struggle for big 3: Tigray, Amhara and Oromo.
In principle, the decentralisation aspect was contradictory to the ideals of democratic centralism. The majority of leaders in the respective Regions, Zones, Woredas and Kebeles were directly or clandestinely appointed by TPLF-EPRDF to neutralise any potentially conflicting views. Increasingly, regional governments became weak as the majority of the posts were occupied by party loyalists thereby creating patronage networks. Additionally, decision-making became a top-down approach moving away from the promises of decentralisation and democratisation (Clapham, 2017; Jebena, 2015). As noted by an embassy official in Addis Ababa:

“Ethiopia is one of the most centralised and the most decentralised country in Africa. That sounds ironic, but that is also true because the Ethiopian politburo has the highest grip on every decision. At the same time, regional states have an extended level of freedom in making their own decisions” (Interview 20170724143353).

The 1995 constitution created room for democratisation processes in which rule of law and respect for civil and political liberties were guaranteed. A new dawn and approach to governance was introduced through the federal bicameral parliamentary system. A Prime Minister became the head of the government, and a President became a ceremonial head of state. The parliament would elect the Prime Minister while the House of People’s Representatives elects the President. The constitution granted executive power to the government and the legislative power to the parliament. The judiciary power was considered independent since the Prime Minister would then recommend candidates for appointment by the House of People’s Representatives. However, in practice, these guarantees were short-lived (Kefale, 2011). When the Ethio-Eritrea war (1998-2000) broke out followed by the 2001 TPLF split, and the 2005 elections, civil and political liberties, and political space for opposition parties were curtailed, as the country degenerated into an authoritarian regime (Jalata, 2015). Specifically, the 2005 elections were marked by violence and claims of vote fraud by the ruling party, which led to demonstrations where more than 200 people were killed followed by arbitrary arrests of journalists, protestors, opposition leaders and civil society organisations (HRW, 2010). Clapham (2018) argues:

“The culture of statehood in Ethiopia has long been— and remains— hierarchical and intolerant of dissent, and imposes limitations which are not only responsible for much of the conflict from which the country has suffered, but also constitute a significant barrier to the development enterprise itself”.

Post the 2001 TPLF-split and the humiliating EPRDF defeat in Addis Ababa in the 2005 elections TPLF remainers underwent an ideological gim gim (self-evaluation) process that materialised with the adoption of the (authoritarian) developmental state. Below I discuss the
origins of the Ethiopian developmental state and how it laid the foundation for engagement with China.

4.2 Alternative paradigm: democratic or authoritarian developmental state?
The idea of a developmental state in Ethiopia is traced back to Haile Selassie I Imperial era. Then, he sent a group of officials to study the Japanese model of development which had contributed to economic and structural transformation in Japan within a short space of time. The 1931 Ethiopian constitution was modelled from the Meiji (Japanese empire 1868-1912) constitution of 1890. Upon the messengers’ arrival in Japan, Blatten Geta Hiruy, former Ethiopian Foreign Affairs Minister under the Haile Selassie I government relays that:

“On behalf of Emperor Haile Selassie [...] Ethiopia and Japan, have unbroken lines of imperial rule, and that Haile Selassie had been determined to follow the model of Japan’s charter to develop his country” (cited in Kebede, 1999, p. 272).

While the Meiji Empire and Haile Selassie imperial governments had some similarities in terms of political and historical imperial continuity, the Ethiopian government’s attempt to modernise was not successful (Jalata, 2015). Critics argue that the Ethiopian officials who were tasked with conducting studies of the development model did not undertake in-depth studies—implying there were several omissions (Ibid). Second, it is argued that Haile Selassie’s government did not have the political will and commitment to achieve reform. Third, the level of technological development between the two empires was not matched. Finally, the Ethiopian government’s attempt to modernise the economy was halted by the Italian invasion in 1936 and the eventual outbreak of World War 2 in 1939 (Keller, 2005). From 1974 to 1991, the revolution left no space for development policy experimentation as initially planned by Haile Selassie.

Fast forward to the Meles led government, a developmental state was seen as the only survival strategy. Economic transformation was necessary especially after a series of TPLF internal contestations. The first tensions can be traced from the ideological differences amongst the old guard—which eventually led to the split in 2001. The second source of tension was the 1998-2000 Ethiopia-Eritrea war in which Meles was accused by Tewolde-Siye group of being too soft and not taking the advice of his TPLF comrades seriously. The third

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79 Several authors have written at length about this split between Tewolde-Siye group vs the Sebhat-Meles group (See Milkias2001; Tadesse & Young, 2003).
80 Meles’ mother was from Adi Quala, Eritrea. He was accused of having not unleashed a comprehensive counter attack against Eritrea. Ethiopia however won the war.
reason being the humiliating TPLF-EPRDF Addis Ababa defeat of the Coalition for Unity and Democracy (CUD) in 2005\(^8^1\).

Meanwhile, the failures of the neoliberal reform project in Africa instigated by the Bretton Woods institutions (World Bank and IMF) created room for Meles and the TPLF-EPRDF leadership to drive the agenda for an alternative paradigm to address the challenge of underdevelopment in Ethiopia and Africa in general. As argued by Meles:

> “The key message is that the neo-liberal paradigm, which has devastated our economies over the past decades and which has now come back home to roost needs to be discarded before we can do any of the things that we need to do to transform our economies […]. We need to free ourselves from the constraints of that ideology and pragmatically select our own path of development, based on an empirical evaluation of what works and does not work for us” (cited in Jalata, 2015, p. 21).

Meles mainly criticised the Bretton Woods institutions’ prescriptions that developing countries should get the prices right (especially for commodity-based economies) and withdraw the state so as to allow the market and its so-called efficiencies and competition to drive development (Zenawi, 2012). His ideological basis challenged the idea of allowing the market to set the preferences for African countries’ development pathway. He argued that the private sector is obsessed with rent-seeking\(^8^2\) rather than value creation and technological accumulation which are necessary pre-requisites for structural economic transformation. Being interviewed by De Waal, Meles notes that:

> “You cannot change a rent-seeking political economy just by reducing the size and role of the state. The neo-liberal paradigm does not allow for technological capacity accumulation, which lies at the heart of development. For that, an activist state is needed, that will allocate state rents in a productive manner […]. If the state guides the private sector, there is a possibility of shifting to value creation. The government should choose when and how to partner with the private sector” (De Waal, 2012).

For Meles’ government, failure to achieve economic progress was therefore seen as an existential threat without which the TPLF probability of survival was close to zero. The TPLF split allowed Meles to centralise power and all potential threats were neutralised. Several old TPLF comrades were arrested, some were killed, and some went into exile. This created an

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\(^8^1\) At the federal level, EPRDF was announced to have won 327 seats followed by CUD at 109, UEDF at 52, and others at 58. It is reported that CUD won all the seats for Addis Ababa.

\(^8^2\) Defined as all largely unproductive, expropiate activities which bring positive return to the individual or an organisation but not to the state or society. Some of the activities are legal but tend to degenerate into bribery and corruption. Rents are sought in different circumstances but the rents of primary interest for economic analysis derive from public-policy decisions (See Krueger 1974; Hillman & Ursprung, 2015).
opportunity for Meles to create a new line of party elites and loyalists who subscribed to his ideological orientation to build a capitalist society so as “to establish a class basis for development and democracy” (De Waal, 2015, p. 163). As noted, “for Meles, Marxist-Leninism was not about a socialist society, but a question of developing the country’s political economy” (De Waal, 2015, p. 163)—hence the transition from *abiyotawī ye dimokirasī* (revolutionary democracy) to *ye dimokirasī lematawi Mengistu* (democratic developmental state).

Meles reiterated that:

“There has to be more political space for experimentation in development policy than has been the case so far in Africa […]. The international community has a role in creating such a space by tolerating development paradigms that are different from the orthodoxy preached by it. Africans have to demand and create such a space” (Zenawi, 2006, p. 39).

“We in Ethiopia have embarked on a reform programme that is based, on […] the establishment of a developmental state […] that we have called democratic developmentalism” (*Ibid*).

So, what was Meles’ idea of a democratic developmental state? Meles’ TPLF-EPRDF sense of democracy\(^8^3\) was drawn from the Leninist democratic centralism where in particular “the ruling party enjoys effective monopoly of political power” (Clapham, 2017, p. 77) and equally economical, through the creation of party endowment funds\(^8^4\) (Vaughan & Gebremichael, 2011). For Clapham, the EPRDF’s “aspirations are explicitly hegemonic, and challenges to its control have been suppressed with whatever level of force has been required for the purpose […]. The EPRDF regime remains a classic case of illiberal state-building” (2017, p. 77). Consistent with Clapham’s judgement of the EPRDF, Meles being interviewed by De Waal categorically states that:

“What meaning did liberal civil and political rights have in a context of abject poverty or political chaos. Development and a strong state were prerequisites for human rights, and Ethiopia needed to establish these first” (De Waal, 2012).

For Meles, the Ethiopian democratic (though authoritarian) developmental state was to be identified with the following. It should have hegemony of value creation in which the leadership should be obsessed with economic growth and structural transformation. The leadership was

\[^8^3\] For Meles and his EPRDF this rested on the democratic institutions and constitutionalism, elections processes and multi-party system.

\[^8^4\] Tumsa—Endowment Fund for the Development of Oromia; Wendo—Endowment Fund for the Development of SNNPRS; Tiret—Endowment Fund for the Rehabilitation of Amhara; EFFORT—Endowment Fund for the Rehabilitation of Tigray. These business entities were formed in close association with the constituent parties of the EPRDF and they derive considerable advantage to win government tenders because of their political connections (Clapham, 2018).
to be relatively uncorrupted. The state was expected to have relative and embedded autonomy to independently formulate and implement policies against contending social and market forces. This was dependent on the domestic creation of growth-oriented financial institutions that had undivided attention and commitment to massive state-led investment in hard and soft infrastructure. It is, however, important to mention that, one of the defining pinnacles of developmental state has to do with a strong, efficient, merit-based, performance-oriented bureaucracy (Taylor, 2012)—which Meles was silent about (Lefort, 2013).

The idea of an active state in directing and influencing the pace and direction of development in Meles’ TPLF-EPRDF perspective hinged on two central principles: (i) the centralisation of the state revenues and their eventual redistribution and, (ii) guiding the private sector towards value creation (Lefort, 2013, p. 460). Learning from the Asian countries—in particular, Japan, Taiwan, South Korea, and later China, Meles’ emphasised the collective rather than the individual as a focal point of development (Gadzala, 2015b). As a result, the ruling political elites capture the rents from the party affiliated endowments, businesses and state-owned enterprises and distribute them to themselves and their cronies (Abegaz, 2011), and also to the national development priorities to stabilise their political power and maintain regime legitimacy (Gebregziabher & Hout, 2018). However, this model had challenges:

“Resource allocation for industrial policy is not fully transparent. It is not clear when firms are eligible to get preferential treatment in terms of access to licenses, land, credit and foreign exchange. On what condition ailing firms will be bailed out, and whether these conditions vary between state-owned enterprises, firms affiliated with the ruling political parties, and independent private firms […]. Party-affiliated endowments have taken many of the business opportunities left for private engagement. Discretionary allocation of public resources lends itself to political capture by interest groups” (Altenburg, 2010, p. 2).

Regardless of this limitation, for Meles, hagerawi lemat (national development) was rooted in the state which had the necessary organisational power to consistently provide economic guidance through formulation and implementation of growth targeted macroeconomic planning and policies compared to the private sector (Zenawi, 2012). Several policy instruments were thus formulated and implemented contributing to high growth rates over the years. Such policies include the Agricultural Development Led Industrialisation (ADLI) (1994)—which was mainly targeted at improving the performance and modernisation of the sector, given that it was, and continues to be, the backbone of Ethiopia’s economy. ADLI was followed by the Industrial Development Strategy (IDS) (2003) which targeted creating and improving the manufacturing base, and export-led industrialisation, development of
infrastructure and the introduction of small to medium enterprises as a vehicle for employment creation, poverty reduction and alleviation (Oqubay, 2018). IDS was followed by the five-year Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) (2005-10) which was aligned with the Millennium Development Goals aimed principally at alleviating poverty. The fourth and current policy framework is the Growth and Transformation Plan (GTP) I (2010/11-2014/15) and II (2015/16-2019/20) aimed at long term public infrastructure investment (power, transport and communication), human capital development and export-oriented industrial zones.

As a result of the various policy instruments, Ethiopia is one of the fastest growing economies in the world with an average Gross Domestic Product (GDP) growth of 10.5% over the past decades and reaching $80 billion in 2018 (World Bank, 2018c) (see figure 4.1). Growth has been aided by a boom in manufacturing, construction and service sectors (see figure 4.2 & 4.3) and in 2017, the service sector contributed 43.6% to GDP followed by agriculture at 34.8%, industry at 21.6% and others. In 2013, agriculture remained the dominant sector for employment (72%) followed by the service sector (19.9%) and industry(7.4%) (CIA World Factbook, 2018).

**Figure 4.1 Ethiopia annual GDP growth indicators 1980-2018**

Source: IMF: World Economic Outlook October 2018
The economic growth is positively impacting on social development in Ethiopia. Millions of people have been lifted out of extreme poverty. According to the World Bank (2018c), the national poverty headcount ratio decreased from 30% in 2011 to 24% in 2016\(^8\) (see figure 4.4). Infant mortality rate per 1000 live births decreased from 88.2 to 41 per 1000 live births from 2000 to 2017 (see table 4.3), and under-five mortality rate decreased from 123 to 88 per 1000 live births between 2005 and 2010 (WHO, 2013). The government’s expenditure on health increased, of which out-of-pocket health expenditure (OOP) and external donor support sources account for 37% and 39% respectively of total health expenditure (WHO, 2013, p. 21). Total annual per capita health expenditure increased from $7.14 in 2005 to $16.10 in 2007/2008 (WHO, 2013, p. 21). Meanwhile, hospitals (all types) increased from 79 to 116 by

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\(^8\) According to World Bank, national poverty headcount ratio (country specific) is the percentage of the population living below the national poverty lines. National estimates are based on population-weighted subgroup estimates from household surveys.
2009/2010 followed by the addition of 15,000 new health posts and 3,200 new health centres \((Ibid)\).

Table 4. 2 Ethiopia’s education enrolment (% gross) 2000-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Pre-Primary</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
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<tbody>
<tr>
<td>2000</td>
<td>1.6</td>
<td>54.4</td>
<td>13.5</td>
<td>1.2</td>
</tr>
<tr>
<td>2005</td>
<td>2</td>
<td>79</td>
<td>24.7</td>
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<tr>
<td>2010</td>
<td>4.2</td>
<td>91.8</td>
<td>34.8</td>
<td>7.3</td>
</tr>
<tr>
<td>2015</td>
<td>30.2</td>
<td>101.9</td>
<td>35.1</td>
<td>n/a</td>
</tr>
</tbody>
</table>


Table 4. 3 Ethiopia’s selected health performance indicators 2000-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Infant Mortality Rate (/1000 Live Births)</th>
<th>Life Expectancy (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>88.2</td>
<td>51.9</td>
</tr>
<tr>
<td>2005</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>2010</td>
<td>55.3</td>
<td>61.6</td>
</tr>
<tr>
<td>2015</td>
<td>44.2</td>
<td>65</td>
</tr>
<tr>
<td>2016</td>
<td>42.5</td>
<td>65.5</td>
</tr>
<tr>
<td>2017</td>
<td>41</td>
<td>n/a</td>
</tr>
</tbody>
</table>


Figure 4. 4 Ethiopia’s poverty level indicators in Ethiopia

Source: World Bank 2018

Despite the progress, Ethiopia remains a poor, low-income and heavily aid-dependent country (see figure 4.5). The manufacturing sector remains underdeveloped, while the service sector is undergoing positive and promising structural transformation. Technology, industry and innovation capabilities remain largely underdeveloped partly because of inadequate
infrastructure. According to the United Nations Development Program (UNDP) (2017, p. 39), electricity shortages and supply interruptions were identified by both private and public firms as a significant challenge affecting manufacturing and industrial capabilities. The increased demand for electricity can be explained by the industrial parks boom where 12 industrial parks were in operation or under construction by October 2018 (see appendix 4.1). More than $5.1 billion will be required to meet the infrastructure development plans out of which the power sector will require a sustained annual expenditure of $3.3 billion from 2010 to 2020 (Foster & Morella, 2010, p. iv). This suggests that there is a significant electricity infrastructure deficit with most of the existing ones being dilapidated due to poor maintenance, causing severe bottlenecks, and limiting the country’s industrial potential. Nonetheless, this trend has been changing due to the public-led infrastructure investment with capital borrowed mainly from China as concessional loans, specifically targeting transport, power, and information and communication technology.

**Figure 4.5 Net disbursements of ODA to selected Sub-Saharan Africa by recipient**

![Net disbursements of ODA to selected Sub-Saharan Africa by recipient](image)

Source: OECD Statistics on resource flows to developing countries. Ang—Angola, DRC—Democratic Republic of Congo, Ethio—Ethiopia, Ken—Kenya, Maur—Mauritius, Rwan—Rwanda, Tan—Tanzania, Uga—Uganda and Zim—Zimbabwe. As of 2016/17 primary aid uses for combined DAC donors as a % of total commitment were as follows: social and administrative infrastructure at 33.8%; economic infrastructure at 17.3%; agriculture 4.4%; industry and other production 1.5%; commodity aid and programme assistance 2.4%; humanitarian aid 12.8%; other 27.7%.

Trade has remained unbalanced for Ethiopia since 1995 (see figure 4.6). The Economic Complexity Observatory database (2019) depicts that in 2017, Ethiopian exports were $2.2 billion and imports of $8 billion implying a negative trade balance of $5.8 billion. Top exports
for 2017 were coffee ($712M), other oily seeds ($348M), gold ($242M), cut flowers ($207M) and dried legumes ($116M). Top imports for 2017 were planes, helicopters, and spacecraft equipment ($660M), gas turbines ($351M), packaged medicaments ($322M), telephones ($235M) and delivery trucks ($194M). In the same year, China (see appendix 4.5) was the top export partner ($343M) followed by Switzerland ($287M), the USA ($264M), the Netherlands ($245M) and Germany ($183M). At the same time, China was the top import origin for Ethiopia at the value of ($2.65B), followed by France ($938M), India ($691M), Germany ($369M) and Turkey ($337M) (The Economic Complexity Observatory Database, 2019).

**Figure 4. 6 Import and export values for Ethiopia 1995-2017**

Source: The Observatory of Economic Complexity 2019

### 4.3 Conditioning factors and setting the scene for foreign cooperation

Ethiopia has often been presented in the literature as a unique African country that has been able to meaningfully shape and influence its engagement with foreign powers over the last two few decades (Brautigam, 2011; Gadzala, 2015b). Which factors make Ethiopia exceptional (Fry, 2017; Manson, 2015)? Alemu and Scoones (2013, p. 91) argues that:

“...In terms of the [...] state power and capacity in Africa, the Ethiopian state has ‘agency’, and is able to negotiate with powerful external actors for its own ends, avoiding the position of being a passive ‘recipient’ or a ‘pawn’ in wider power games”.

There are several explanations for this. The significance of history and cultural continuity in political organisation and state formation is the first factor. Apart from being the only African country that resisted colonialism, Ethiopia is one of the oldest civilisations in the world with recorded modern state formation and political organisation traced from 1855 during the reign

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86 CIA World Factbook suggest a different list: Sudan 23.3%, Switzerland 10.2%, China 8.1%, Somalia 6.6%, Netherlands 6.2%, US 4.7%, Germany 4.7%, Saudi Arabia 4.6%, and UK 4.6% (CIA World Factbook, 2018).
of Tewodros II. Menelik II who took over after the Tewodros II, expanded the borders of Ethiopia creating a fully modern and technologically advanced country by the standards of that era. He is famous for his political and military organisational capabilities that saw the defeat of the Italians at Adowa in 1896. From this history and political organisation, Ethiopia has a strong institutional memory which has come about because of continuous learning processes (Interview 20170802154843). As explained by a Professor at Addis Ababa University:

“Historically, Ethiopia has always had a strong state, even before colonisation, had a relatively strong state. It never had the problems of other post-colonial states which had to erect a government from nothing when they got independence. The current government when it took over from the Derg, the Derg also was obviously a very strong regime, and a lot of civil servants stayed behind but also the methodology of the government, the structure of the way in which the state is organised in Ethiopia has always been competent and efficient. That’s not to say there is no corruption, but its less than other places and you will notice that a lot of the top officials in Ethiopian government have been educated overseas, they were in exile, they have a lot of experiences, that’s different from many African countries. What that means is that the Ethiopian state is able to enter into negotiations with Chinese, not on an equal footing because, you know the size of China, but much more on a kind of place where they would like to get benefits and not be walked over” (Interview 20170526121908).

The quote above suggests that the EPRDF led government adopted a relatively well-functioning institutional base and bureaucratic ecosystem which has allowed the government to independently experiment with its development pathway without succumbing to external influence and demands (Feyissa, 2011; Fraser & Whitfield, 2008). In fact, Ethiopia is considered to be the first country in Africa to have engaged with the World Bank in the late 1940s when it received the World Bank assistance package (Furtado & Smith, 2007). This was indeed a learning curve for Ethiopia. Because of this long history of engaging with development agencies further back than other African countries, Ethiopia has gained negotiating capital and has rich experience of when and how to resist, comply and conform to the pressure—a variable many African governments lack—when engaging with foreign actors. This experience has allowed Ethiopia:

“To keep donors at arm’s length and to play off Cold War rival sponsors without allowing any too close. Upon coming to power after the end of the Cold War, the EPRDF government aligned Ethiopia as a key geostrategic ally of the United States. The Horn of Africa has only increased in interest to the US, especially under the US administration’s War on Terror since 2001. Aware of its strategic importance, the
government knows that it had and continues to have significant room for manoeuvre" (Fraser & Whitfield, 2008, p. 12).

Further to this, even though Ethiopia is natural resources limited, it “does not just wait for donors to suggest something, and allow them to get on with it; the government always has a plan” (Alemu & Scoones, 2013, p. 92). This implies there is no free ride in Ethiopia because of “tight political oversight of bureaucratic systems” aimed specifically at controlling and directing donors and investors to where the government wants them (Alemu & Scoones, 2013, p. 92). As such, investors and donors are expected to respect and comply. Therefore, it goes without saying that “the Ethiopian regime is independent-minded, proud, and unwilling to bow to the whims and wishes of donors and the international community” (Borchgrevink, 2008, p. 217).

The second explanation has to do with the nature of the political regime and system of governance. The government has created a closed space for donors and investors who may wish to engage with the government outside the blueprint of the set development plans (Interview 20170802142852). The centralised political organisation and uninterrupted time spent by the EPRDF in power due to continued manipulation of the electoral cycles in its favour, has created development policy pathway stability. Added to this, the party-affiliated and party-controlled public and private sector businesses have further created a hegemony that ensures the continued success of the government’s economic transformation agenda setting. The EPRDF-affiliated businesses and state-owned enterprises allow the government to have strong ownership of the national vision including the manner and timeframe under which such development interventions can happen. This intentionally or unintentionally limits investor/donor influence in national development planning. At the same time, the federal government retains the power to broker engagements with investors/donors, while decentralising only development project implementation to regional states, creating complex, vertical and horizontal layers of bureaucracies (Furtado & Smith, 2007). This makes it equally difficult for investors/donors to understand the structural features of the government. As noted:

“Often donors in Ethiopia only have a limited understanding as to how policy decisions are made. The extent to which the government seems unwilling to accept input from the donor community—due, in part, to unpredictable donor support in the past—sets Ethiopia apart from other low-income countries where donors have more easily embedded themselves in government structures, thereby potentially facilitating a more ready exchange of information and policy ideas” (Furtado & Smith, 2007, pp. 22–23).

The complexity in understanding the roles and responsibilities of the federal and regional government is partly intentional to give room for executives to discretionally make decisions
in development projects. For example, the former Chief Executive Officer of EEP Mihret Debebe intervened several times during the construction of Adama wind farms when there were clashes between the contractor and the consultancy team (Interview 20170801090344). These interventions, for better or worse, somehow affected the professionalism and effectiveness of the civil servants in administering their jobs. It nonetheless shows the power and influence of executives in intervening in development projects in cases where the government’s planned outcome is threatened.

The third explanation relates to Ethiopia’s geographical location and position as the diplomatic capital of Africa. It host the permanent seat of the United Nations Economic Commission for Africa, the African Union headquarters, and several other international organisations and diplomatic representations (Feyissa, 2011). Ethiopia thus provide a diplomatic gateway to the rest of the continent. Such a position comes with bargaining power. The Horn of Africa is one of the world’s most unstable regions and Ethiopia has been regarded as a regional stabiliser (Clapham, 2018). Although Ethiopia has been accused of serious human rights abuses which have recently led to social and political instability, it has remained a vital partner for the USA and western Europe global war on terror (Whitfield & Fraser, 2010). All these variables allow Ethiopia to yield a powerful strategic capability when engaging with investors/donors (Hackenesch, 2018). As noted:

“Ethiopia has placed itself diplomatically, as a force for ‘stability’ in an unstable region: as a leading partner in the ‘global war on terror’, a major supplier of peacekeeping forces to help control conflicts in neighbouring states, and a generally responsible mediator in disputes such as those in Somalia and South Sudan” (Clapham, 2018, pp. 1156–1157).

Finally, the level and nature of Ethiopia’s economic performance, especially since 2002, has considerably improved its economic clout in East Africa if not in Africa. Ethiopia provides an interesting case study where state-led development planning, effective aid use and FDI generates new evidence to debates on poverty reduction in Africa. The double-digit GDP growth, the massive state-led infrastructure development, the ability to attract capital (whether domestic or foreign) to finance the national development plan has created the sense of profit possibilities especially for foreign entities wanting to invest in Ethiopia. Despite the limitations of Ethiopia in meeting good governance indicators, the country has attracted remarkable investments from both the West and the East regardless of its disapproval of “economic policies ostensibly favoured by the principal Western donors” (Clapham, 2018, p. 1157). This all comes from the government ability to proficiently play one donor against the other to its advantage and also the ability to show value for money through high and “visible returns on
their investments” (Clapham, 2018, p. 1157). As a result, Ethiopia’s sovereign credit rating outlook has been stable (see table 4.4) (although it remains high risk) creating further confidence for investors and financial institutions.

“This gives the [Ethiopian] government substantial bargaining power, which it exercises at times by refusing to compromise on its policy agenda, and at times by dividing the donor community. This involves a degree of gamesmanship (on both sides) with the potential for positions and strategies being misjudged in either direction. There are instances in which the government may not realise the extent to which the donor community’s interest in Ethiopia enhances its negotiating position; conversely, the government also seems capable of over-estimating the strength of its position” (Furtado & Smith, 2007, p. 24).

Table 4.4 Ethiopia’s sovereign credit rating

<table>
<thead>
<tr>
<th>Agency</th>
<th>Rating</th>
<th>Outlook</th>
<th>Year</th>
<th>Rank/100</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P</td>
<td>B</td>
<td>stable</td>
<td>2014</td>
<td>30</td>
</tr>
<tr>
<td>Moody’s</td>
<td>B1</td>
<td>stable</td>
<td>2014</td>
<td>35</td>
</tr>
<tr>
<td>Fitch</td>
<td>B</td>
<td>stable</td>
<td>2014</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: countryeconomy.com 2019. NB: Sovereign credit rating relates to how credit worth is a country measured out of 100. B1 and B here shows a high-risk factor and the probability to repay the loans is highly speculative.

4.4 Ethiopia—looking up to and from China

Official engagement between Ethiopia and China is traced to 1956 when Ethiopian cultural delegation visited China. A reciprocal visit by the Chinese Prime Minister Zhou Enlai to Ethiopia followed in 1964 paving the way for the establishment of official diplomatic relations between the two countries in 1971 (see table 4.5). It is argued that Ethiopia played an important role in pushing for the recognition of People’s Republic of China as the legitimate ‘China’ to have a United Nations Security Council seat against the Republic of China (Taiwan) (Adem, 2012; Venkataraman & Gofie, 2015). Although that was the case, for Thakur (2009) relations between Ethiopia and China were rather mild, and somehow strained because Ethiopia supported the USA and Britain’s alliance with South Korea against Chinese-aligned North Korea in the Korean War. The Derg military regime which overthrew Haile Selassie aligned itself with the Soviet Union further limiting cooperation with China. Productive engagements resumed in 1988 when Mengistu Hailemariam visited China, possibly upon noticing the imminent collapse of Soviet power (Venkataraman & Gamora, 2009). This visit signalled the switch from the Soviet Union to the Chinese culminating in the signing of Sino-Ethiopian Agreement for Economic and Technological Cooperation (Adem, 2012).
When the EPRDF came to power in 1991, Ethiopia had severe budgetary challenges due to severe economic and resource mismanagement as a result of the almost 20 years revolution (Lejeune, 2015). This put the EPRDF between a rock and a hard place as they had to survive by foreign aid initially. The aid came with conditionalities which according to the TPLF old guard were against the revolutionary ideology. Ethiopia struggled to find a way forward and policy autonomy against all-powerful Western institutions (Balema, 2003). An alternative was thus devised to counter the unacceptable Western agencies prescriptions by partnering with an anti-Western like-minded country—China. China was appealing because it offered practical lessons for the EPRDF to learn from without necessarily bending to the over-prescriptive powerful Western financial institutions and development agencies. It is therefore not surprising that Meles visited China in 1995 to express his willingness to learn from Beijing. In 1996 Jiang Zemin, the then General Secretary of the Chinese Communist Party and President of China, visited Ethiopia further cementing the commitments. It is important to mention that the current Ethiopia-China relations started at the Party to Party level, and as alluded to by an embassy official in Addis Ababa, all deals are thus reached at that level before being transferred to the government level, something Western institutions have failed to grasp (Interview 20170724 143353). To cement the Party to Party relations, a Memorandum of Understanding was signed between EPRDF and CCP in 2010, and since 2008, each Party has sent representatives to their congresses (Lejeune, 2015).

Table 4. 5 Ethiopia-China official cooperation framework

<table>
<thead>
<tr>
<th>YEAR</th>
<th>COOPERATION FRAMEWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>Ethiopia-China Economic &amp; Technique Cooperation Framework</td>
</tr>
<tr>
<td>1971</td>
<td>Ethiopia-China Trade Agreement</td>
</tr>
<tr>
<td>1976</td>
<td>Ethiopia-China Trade Agreement</td>
</tr>
<tr>
<td>1984</td>
<td>Ethiopia-China Trade Protocol</td>
</tr>
<tr>
<td>1986</td>
<td>Ethiopia-China Trade Protocol</td>
</tr>
<tr>
<td>1988</td>
<td>Ethiopia-China Trade Protocol</td>
</tr>
<tr>
<td>1988</td>
<td>Ethiopia-China Agreements for Economic &amp; Technological Cooperation</td>
</tr>
<tr>
<td>1988</td>
<td>Ethiopia-China Agreement for the Mutual Promotion &amp; Protection of Investment</td>
</tr>
<tr>
<td>1996</td>
<td>Ethiopia-China Agreement for Trade, Economic &amp; Technological Cooperation</td>
</tr>
</tbody>
</table>
1998 | Ethiopia-China Agreement Concerning the Encouragement & Reciprocal Protection of Investments
---|---
1998 | Joint Ethiopia-China Commission (JECC)
2002 | Ethiopia-China Agreement for Economic & Technological Cooperation
2003 | Comprehensive Cooperative Partnership
2010 | Memorandum of understanding on exchange and cooperation between the CCP and EPRDF

In 2003, Ethiopia became the first African country to host the Forum on China-Africa Cooperation (FOCAC). In 2006, again Ethiopia co-hosted the Forum with China. Various high-level officials have visited each other’s country87, and to date, Ethio-China relations have diplomatically88, politically, socio-culturally and economically matured to qualify as a close relationship (Cabestan, 2012). Both sides advocate mutuality in their engagement, joint enterprise in development projects, and share similar ‘repertoires’ on development paradigms (Fourie, 2015), non-intervention, and respect for each other’s sovereignty (Lejeune, 2015).

China is an important partner in Ethiopia’s economic structural transformation trajectories particularly as a source for foreign direct investment (see appendix 4.3 & 4.4), infrastructure development (see appendix 4.2 & 4.6) and trade89 (see appendix 4.5). Since official statistics remain murky, lack of transparency in official data reporting creates substantial uncertainty and avenues for misconceptions to thrive. Loan, aid, foreign direct investment and development finance are not separated, creating problems of duplications and unreliable statistics (China Africa Research Initiative [CARI], 2018a; Desta, 2016). Nonetheless, several sources were consulted here. According to the Chinese Global Investment Tracker (2019) database from 2005 to 2018, Chinese investments and construction contracts in Ethiopia were estimated to be $23.85 billion across all sectors, with transport sector receiving the largest share (see figure 4.8). From 2000 to 2017, CARI (2018a) suggests that Ethiopia received

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88 Ethiopia was one of the African countries that sided with China during the UN Human Rights Commission case against China in 2007. Ethiopia parliament also supported China’s anti-secession law (regarding Taiwan). Similarly, China distances itself and never comment on Ethiopia’s human rights abuses. For China, Ethiopia is an ally to have on your side given its influence in Africa.

89 Trade between Ethiopia and China remains unbalanced in favour of China. Cumulative trade volume from 1992 to 2016 saw, Ethiopia experiencing a negative trade balance of more than $27 billion. By 2015, trade volume reached more than $3 billion (see appendix 4.5).
$13.74 billion (see figure 4.7 & 4.8) of Chinese loans across all sectors, with transport and power receiving a substantial chunk.

Meanwhile, by 2016, Chinese FDI stock in Ethiopia was estimated to be more than $2 billion in which the manufacturing sector accounted for over 60% (Hailemariam, 2016). CARI (2019) also estimate Chinese FDI stock in Ethiopia to be around $1.976 billion by 2017 (see figure 4.9). These two data sets show that Chinese FDI in Ethiopia is still very low, which is not surprising given that cumulative Chinese FDI stock in Africa is estimated to be $43 billion from 2003-201790. Chinese FDI in Africa shows that Ethiopia is seventh-ranked in terms of top Chinese FDI stock and flow destination (see figure 4.10) (China Africa Research Initiative, 2018a). By 15 January 2019, data obtained from Ethiopia Investment Commission (2019) shows that more than 1368 FDI projects from China had been licenced. Out of this, 319 were under pre-implementation, 210 under implementation and 839 in operation (see appendix 4.3 & 4.4). More than 95% of Chinese firms in Ethiopia are private, and the majority are in manufacturing, followed by construction and real-estate sectors. What is evident in Ethiopia-China relations is that Chinese loans and FDI in Ethiopia’s transport, energy infrastructure and manufacturing sector is now indispensable in terms of Ethiopia’s development trajectories (Brautigam, 2011; Cheru, 2016; Geda & GebreMeskel, 2010). As the relationship between Ethiopia and China continues to grow, questions of the Ethiopian government’s ability to strategically manage Chinese influence in its national development plan will emerge.

**Figure 4.7 Total Chinese loans to Ethiopia by financier 2000-2018 ($million)**

<table>
<thead>
<tr>
<th>Eximbank</th>
<th>CDB</th>
<th>Supplier's Credits</th>
<th>Other</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>7245</td>
<td>655</td>
<td>4165</td>
<td>1673.88</td>
<td>13739</td>
</tr>
</tbody>
</table>

Source: Data retrieved from CARI database 2018. C-EXIM Bank remains the largest lender in Ethiopia. Other lenders include the China Development Bank and the Industrial and Commercial Bank of China.

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90 According to UNCTAD World Investment Report (2017), by 2015, the USA had the largest FDI stock in Africa ($64bn) followed by the UK ($58bn), France ($54 billion), China ($35bn), South Africa ($22bn), Italy ($22bn), India ($17bn), Singapore ($16bn), Switzerland ($14bn) and Malaysia ($12bn).
Majority of these loans were under a concessional arrangement with usually below market interest rate and grace period.

**Figure 4. 8 Chinese loans to Ethiopia 2000-2017 by sector ($million)**

![Figure 4. 8 Chinese loans to Ethiopia 2000-2017 by sector ($million)](chart)

Source: Data retrieved from CARI database 2018. Transport remains the largest Chinese funded sector followed by communication, power, industry, water, trade and others. Among the big projects is the ZTE C-EXIM bank financed $1.5 billion Telecommunication deal; Addis-Djibouti $2.4 billion railway project; Adama expressway $800 million and many more (see appendix 4.2 for a selected few big projects that were majorly funded and contracted to the Chinese).

**Figure 4. 9 Chinese FDI stock and flow in Ethiopia 2003-2017**

![Figure 4. 9 Chinese FDI stock and flow in Ethiopia 2003-2017](chart)

Source: Data retrieved from CARI database 2018.
4.5 Chapter summary

This chapter has presented a post-1991 history of Ethiopia and how that era is notable for laying the foundation for deepening and cementing of economic and political ties with China. It also traced the transition from the Derg regime to the TPLF-EPRDF led government and the adoption of an ethnic-based federal system for political mobilisation and organisation. This political setting provides a window of opportunity to examine the current Ethiopian political economy. The chapter also traced the evolution of the Ethiopian version of developmental paradigm, an authoritarian one in which TPLF-EPRDF, especially under the intellectual and ideological guidance of Meles Zenawi, devoted itself to economic progress at the expense of civil rights and political liberties. Although the authoritarian development state model has so far contributed to changes and progress in the economy, there is still a lot to be done especially on improving the hard infrastructure endowment. These changes are largely explained by a continued stay in power of TPLF-EPRDF party which has until recently, created stability and lock-in in terms of development policy planning and orientation.

The chapter also explained the Ethiopian particularism and exceptionalism which creates both normative and practical influence when engaging and negotiating investment and
The chapter has presented the nature and depth of both political and economic ties between Ethiopia and China and how in particular engagements at the Party to Party level create room for engagement in other areas. As such, the deepening of relations between the two countries is a direct result of strong relations between EPRDF and the Communist Party of China. Therefore, the Party to Party level of engagement sets the tone and direction of cooperation through which deals are negotiated and sealed at the political level before they are transferred to the 'state/government level'. This suggests a thin line that separates the Party and the state in Ethiopia. The state is, therefore, an extension of the Party. In the following chapter, I examine the drivers and motivations for Ethiopia and China to finance and develop the two wind farms.
Appendix 4. 1 Industrial park in Ethiopia as of October 2018

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Eligible Sector</th>
<th>Status</th>
<th>Remark</th>
<th># Sheds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bole Lemi –I</td>
<td>Addis Ababa</td>
<td>Apparel and textile</td>
<td>Operational</td>
<td>Fully occupied</td>
<td>20</td>
</tr>
<tr>
<td>Bole Lemi –II</td>
<td>Addis Ababa</td>
<td>Textile and garment</td>
<td>Under construction</td>
<td>Serviced land available</td>
<td>2 sheds &amp; Serviced land</td>
</tr>
<tr>
<td>Kilinto</td>
<td>Addis Ababa</td>
<td>Pharmaceutical Hub</td>
<td>Under construction</td>
<td>Serviced land available</td>
<td>Serviced land</td>
</tr>
<tr>
<td>Hawassa Phase-I, Cycle 1</td>
<td>Hawassa</td>
<td>Textile and Garment</td>
<td>operational</td>
<td>Shed available</td>
<td>37</td>
</tr>
<tr>
<td>Hawassa Phase-I, Cycle 2</td>
<td>Hawassa</td>
<td>Textile and Garment</td>
<td>operational</td>
<td>Sheds available</td>
<td>15</td>
</tr>
<tr>
<td>Adama</td>
<td>Adama</td>
<td>Garment, Textile &amp; Machinery,</td>
<td>Under construction</td>
<td>Sheds available</td>
<td>19</td>
</tr>
<tr>
<td>Dire-Dawa</td>
<td>Dire-Dawa</td>
<td>Garment, Apparel and Textile</td>
<td>Under construction</td>
<td>Sheds available</td>
<td>15</td>
</tr>
<tr>
<td>Mekelle</td>
<td>Mekelle</td>
<td>Apparel &amp; Textile</td>
<td>operational</td>
<td>Sheds available</td>
<td>15</td>
</tr>
<tr>
<td>Kombolcha</td>
<td>Kombolcha</td>
<td>Apparel &amp; Textile</td>
<td>operational</td>
<td>Fully occupied</td>
<td>9</td>
</tr>
<tr>
<td>Jimma</td>
<td>Jimma</td>
<td>Not Decided</td>
<td>Under construction</td>
<td>Sheds available</td>
<td>9</td>
</tr>
<tr>
<td>Bahir-Dar</td>
<td>Bahir-Dar</td>
<td>Garment &amp; Apparel</td>
<td>Under construction</td>
<td>Sheds available</td>
<td>8</td>
</tr>
<tr>
<td>Debre-Birhan</td>
<td>Debre-Berhan</td>
<td>garment Apparel &amp; agro processing</td>
<td>Under construction</td>
<td>Sheds available</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Industrial Park Development Corporation 2018
Appendix 4. 2 Selected major Chinese financed and contracted projects in Ethiopia

<table>
<thead>
<tr>
<th>Year</th>
<th>Project name</th>
<th>Lender/Contractor</th>
<th>Cost $m</th>
<th>Chinese contribution</th>
<th>Size</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>Addis Ring Road</td>
<td>86</td>
<td>$13m</td>
<td></td>
<td>Transport</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>Tekeze</td>
<td>Sinohydro &amp; Gezhouba</td>
<td>365</td>
<td>unclear</td>
<td>300 MW</td>
<td>Power</td>
</tr>
<tr>
<td>2006</td>
<td>Ethio-Telecom-ZTE</td>
<td>ZTE</td>
<td>1500</td>
<td>unclear</td>
<td></td>
<td>Telecommunication</td>
</tr>
<tr>
<td>2007</td>
<td>Finchaa-Amerti-Neshe</td>
<td>C-EXIM</td>
<td>155</td>
<td>75%</td>
<td>97 MW</td>
<td>Power</td>
</tr>
<tr>
<td>2008</td>
<td>Eastern Industry Park</td>
<td>C-EXIM, Zhangjiagang Municipal &amp; Jiangsu provincial govt.</td>
<td>100</td>
<td></td>
<td>64 Ha constructed</td>
<td>Industry</td>
</tr>
<tr>
<td>2008</td>
<td>Gotera Intersection</td>
<td>C-EXIM</td>
<td>$12.7m</td>
<td></td>
<td>Transport</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>Adama 1</td>
<td>C-EXIM</td>
<td>117</td>
<td>85%</td>
<td>51 MW</td>
<td>Power</td>
</tr>
<tr>
<td>2010</td>
<td>Genale-Dawa 3</td>
<td>C-EXIM</td>
<td>455</td>
<td>60%</td>
<td>254 MW</td>
<td>Power</td>
</tr>
<tr>
<td>2010</td>
<td>Gibe 3 Electric &amp; Hydromechanics</td>
<td>ICBC</td>
<td>1888</td>
<td>25%</td>
<td>1870 MW</td>
<td>Power</td>
</tr>
<tr>
<td>2010</td>
<td>Transmission Project of Genale Dawa III-Yirgalem II-Wolayita Sodo II-Hawassa II</td>
<td>C-EXIM</td>
<td>unclear</td>
<td>$250m</td>
<td></td>
<td>Power</td>
</tr>
<tr>
<td>Year</td>
<td>Project Name</td>
<td>Agency</td>
<td>Cost</td>
<td>Details</td>
<td>Sector</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------</td>
<td>------------</td>
<td>------</td>
<td>---------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Addis Ababa-Adama Expressway</td>
<td>C-EXIM</td>
<td>1400</td>
<td>$800m</td>
<td>Transport</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Adama 2</td>
<td>C-EXIM</td>
<td>345</td>
<td>85%</td>
<td>Power</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Addis Ababa-Light Railway</td>
<td>C-EXIM</td>
<td>475</td>
<td>$403m</td>
<td>Transport</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Addis Djibouti Railway line</td>
<td>C-EXIM; ICBC; CDB</td>
<td>3400</td>
<td>$2400m</td>
<td>752km</td>
<td>Transport</td>
</tr>
<tr>
<td>2011</td>
<td>Tsehay Real Estate (Poli Lotus)</td>
<td>unclear</td>
<td></td>
<td>$60m</td>
<td>30 000 m²</td>
<td>Real Estate</td>
</tr>
<tr>
<td>2012</td>
<td>Bole Airport Expansion</td>
<td>C-EXIM</td>
<td>340</td>
<td>$225m</td>
<td>Transport</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>African Union Conference centre</td>
<td>Government of China</td>
<td>200</td>
<td>$200m</td>
<td>112 000 m²</td>
<td>Real Estate</td>
</tr>
</tbody>
</table>

Source: Author compilation NB: CDB-China Development Bank; ICBC-Industrial and Commercial Bank of China
## Appendix 4. 3 Licenced Chinese FDI projects by sector in Ethiopia (27/08/98-15/01/19)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Licenced</th>
<th>Pre-Implementation</th>
<th>Implementation</th>
<th>Projects</th>
<th>Investment ‘000’(ETB)</th>
<th>Perm workers</th>
<th>Temp workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>11</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>13 771.28</td>
<td>64</td>
<td>53</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>957</td>
<td>228</td>
<td>155</td>
<td>574</td>
<td>29 708.47</td>
<td>49 709</td>
<td>27 385</td>
</tr>
<tr>
<td>Mining</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>36 500</td>
<td>58</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>530</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>15 417.44</td>
<td>60</td>
<td>42</td>
</tr>
<tr>
<td>Hotels (Resorts, Motels, Lodges) &amp; restaurants</td>
<td>45</td>
<td>10</td>
<td>4</td>
<td>31</td>
<td>101 402.49</td>
<td>717</td>
<td>236</td>
</tr>
<tr>
<td>Tour operation, Transport and Communication</td>
<td>10</td>
<td>1</td>
<td>9</td>
<td>24 920.73</td>
<td>203</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Real estate, Machinery &amp; Equipment Rental &amp; Consultancy Service</td>
<td>153</td>
<td>38</td>
<td>11</td>
<td>104</td>
<td>924 074</td>
<td>86 891</td>
<td>27 239</td>
</tr>
<tr>
<td>Construction contracting including Water Well Drilling</td>
<td>169</td>
<td>35</td>
<td>33</td>
<td>101</td>
<td>6 728 874.03</td>
<td>10 886</td>
<td>30 808</td>
</tr>
<tr>
<td>Others*</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>56 000</td>
<td>70</td>
<td>245</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1 368</td>
<td>319</td>
<td>210</td>
<td>839</td>
<td>37 198.46</td>
<td>148 664</td>
<td>86 114</td>
</tr>
</tbody>
</table>

Source: Data obtained from the EIC (2019). *This includes copper, gold, gemstone & tantalum concentrates, export & imports of chemicals for the leather industry, bonded warehouse system. ETB—Ethiopian Birr
Appendix 4. 4 Licenced Chinese FDI projects by region in Ethiopia (27/08/98-15/01/19)

<table>
<thead>
<tr>
<th>Region</th>
<th>Licensed</th>
<th>Pre-Implementation</th>
<th>Implementation</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Projects</td>
<td>Investment thousands (ETB)</td>
<td>Perm workers</td>
<td>Temp workers</td>
</tr>
<tr>
<td>Addis Ababa</td>
<td>735</td>
<td>16 011 467</td>
<td>26 692</td>
<td>41 941</td>
</tr>
<tr>
<td>Afar</td>
<td>2</td>
<td>1 800</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>Amhara</td>
<td>66</td>
<td>1 565 585</td>
<td>4 458</td>
<td>3 244</td>
</tr>
<tr>
<td>Benishangul-Gumuz</td>
<td>4</td>
<td>515 964</td>
<td>81 097</td>
<td>20 273</td>
</tr>
<tr>
<td>Dire Dawa</td>
<td>12</td>
<td>20 239</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>Gambella</td>
<td>3</td>
<td>405 591</td>
<td>1 731</td>
<td>2 198</td>
</tr>
<tr>
<td>Multiregional</td>
<td>38</td>
<td>18 277 687</td>
<td>34 048</td>
<td>11 787</td>
</tr>
<tr>
<td>Oromia</td>
<td>489</td>
<td>163 767</td>
<td>503</td>
<td>6 473</td>
</tr>
<tr>
<td>SNNPR</td>
<td>14</td>
<td>110 097</td>
<td>110</td>
<td>63</td>
</tr>
<tr>
<td>Tigray</td>
<td>5</td>
<td>2871</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1368</strong></td>
<td><strong>37 072 198</strong></td>
<td><strong>148 664</strong></td>
<td><strong>86 114</strong></td>
</tr>
</tbody>
</table>

Source: Data obtained from the EIC, 2019

Appendix 4. 5 Total trade volume of Ethiopia with China & USA 1992-2016 (million $ unadjusted)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese Export to Ethiopia</td>
<td>30236.50</td>
<td>3112.01</td>
<td>9802.63</td>
<td>2871</td>
</tr>
<tr>
<td>Chinese Import from Ethiopia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA Export to Ethiopia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA Import from Ethiopia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data retrieved from CARI database 2018
Appendix 4. 6 Chinese workers in Ethiopia (contracted projects & labour services)

Source: Data retrieved from CARI database 2018
CHAPTER FIVE: DRIVERS AND MOTIVATIONS FOR ETHIOPIAN AND CHINESE FINANCING AND DEVELOPMENT OF THE ADAMA WIND FARMS

5.0 Introduction
Ethiopia-China engagement in wind energy infrastructure financing and development remains an understudied topic and yet is important, especially in this age of South-South Cooperation’s role in the implementation of SDGs (Chen, 2018). Where such studies exist, more focus has been paid to the Chinese side, paying little or no attention to the African countries’ drivers and motivations (Baker & Shen, 2017; Conrad et al., 2011; Lema et al., 2013; Shen & Power, 2017; Tan et al., 2013). To address this gap, this chapter analyses Ethiopia and China engagement in wind energy. Using data drawn from the interviews with the Ethiopian and Chinese stakeholders involved in the projects, and documents review, I answer the first sub-question posed in this study. Empirical evidence suggests that the drivers and the motivations in each of the two wind farms are similar and consistent, and therefore, the drivers and motivations in the two case studies will be discussed and analysed simultaneously. As such, I make two contributions to the literature on (i) the drivers and motivations of Ethiopian and Chinese actors to develop the wind farms, and (ii) the economic and political determinants of the Ethiopian government to award the contracts to the Chinese.

In this study, I define drivers in a schematic manner which relates to the enabling context and factors that pushed the decision makers to develop the wind farms. I define motivation in a similar way, entailing a spectrum of variables concerned with internal and perhaps external factors that influenced decision making. The chapter is divided into three sections. The first section begins by unpacking the drivers for both Ethiopian and Chinese financing and developing of the wind farms. By examining the Ethiopian drivers, I simultaneously explain the Ethiopian government’s choice of developing wind energy and not other renewable energy technology. At the same time, examining the drivers of the Chinese enterprises’ involvement in Adama wind farms, permits analysis of new and future directions of the Chinese commitment in Africa’s renewable energy sector. The second section interrogates the economic and political factors which influenced the Ethiopian government to award the contract to the Chinese enterprises. The last section summarises the chapter.

5.1 Drivers for Ethiopia to develop Adama wind farms

5.1.1 Technology maturity and other considerations
Wind energy technology maturity was identified by Ethiopian government officials from MOWIE, EEP, EEU and MOFEC as one of the main drivers that led the government to develop Adama wind farms. Modern wind energy was first deployed as a source of electricity generation in 1979 by Vestas, Nordtank, Kuriant and Bonus—Danish wind technology
manufacturers (International Renewable Energy Agency [IRENA], 2018). Since then, massive improvements in the technology have led to increased efficiency, capacity and performance optimisation. As a result of the wind energy revolution attributed to having started in 2008/9, “higher hub heights and larger swept areas by blades” (IRENA, 2016, p. 51) have increased performance predictability and capacity factor. Wind levelized cost of electricity/energy (LCOE) is attractive and competitively cheaper (see graph 5.1). Between 2010 and 2017 the “average cost of electricity from onshore wind fall by 23%. Projects are now routinely commissioned at 4 cents/kWh, and the global weighted average is around 6 cents/kWh” (IRENA, 2018, p. 2). As a result, many wind farms have been commissioned globally. For example, in 2008, 17,000 MW was the global installed capacity compared to 63,467 MW in 2015, where China emerged as a big market and developer of the technology. That also meant the emergence of a larger pool of experienced, internationally active project developers (IRENA, 2018; Shen & Power, 2017). These factors, therefore, contributed to the Ethiopian government developing Adama wind farms. As noted by a MOWIE official:

“Today, when you compare the life cycle cost and repairs, they are very cheap. What looks expensive is the first two years of operations because of the larger amount of capital spent, the capital spend constitute the fuel or energy cost, and there is no energy cost because wind is free. In terms of what we call levelized cost of energy over a 20-year period, it is very cheap and competitive, and whatever problems or questions we have now with this technology for wind, technology is almost year by year solving that problem for us. Economies of scale, especially when China seriously took up wind for itself, the cost has also gone down, they have a large market for it” (Interview 20171011140053).

Alongside technological considerations, two other considerations were identified by the Ethiopian government officials as having contributed to the development of Adama wind farms against solar, which had also been planned for development in GTP I & II. First, the time taken to complete the project was a priority. In 12- and 24-months’ time, Adama 1 and Adama 2 had been completed. As argued by an ASTU professor involved as a consultant in Adama 2, “wind farms are fast track projects, we can construct them within a short time. Within 24 months, we have constructed this big wind farm of 153MW—hydro would have taken much longer”

91 “Ratio of realised over potential output” (Boccard, 2009, p. 2680).
92 Defined as a “measure of the overall competitiveness of different (electricity) generating technologies. It represents the per-megawatt hour cost of building and operating a generating plant over an assumed financial life. Key inputs capital costs, fuel (energy) costs, fixed and variable operations and maintenance costs, financing costs, and an assumed utilization rate for each plant type” (Energy Information Administration, 2018, p. 1).
Similarly, an executive member of the TPLF-EPDRF further explains that:

“Hydropower construction takes a lot of time. For example, the Renaissance Dam, we can say that is being constructed very fast, but it has already passed its fifth year, and it may require may be about 2 to 3 years to complete, but it takes a long time” (Interview 20170512172020).

Second, the social acceptability factor of wind with regards to permanent effects on direct land use was identified as a major consideration. The TPLF-EPRDF executive member further argue that "solar is also open, but the problem with solar, it takes a lot of land" (Interview 20170512172020). Instead, wind was picked because it allowed farmers to use almost 90% of the land, unlike solar (United Nations Convention to Combat Desertification [UNCCD] & IRENA, 2017). This would mean less social resistance from farmers, especially in the Oromia region, known for militancy against the TPLF-EPRDF government. Wind, therefore, reduced the potential conflict, relocation and compensation costs.

Graph 5.1 Global Levelized cost of electricity generation technologies 2010 and 2017

Source: Data retrieved from IRENA renewable cost database (2018). The graph shows levelized cost of electricity by generation technology. Red is 2010 and green is 2017.

5.1.2 Natural driver: availability of abundant and ideal wind resource
Ethiopia is naturally endowed with abundant and harvestable wind mainly along the Great East Africa rift valley, which “is comprised of gently rolling terrain that creates a wind-tunnel effect on the crest of hills. The valley sustains the winds” (Consumer News and Business Channel Africa, 2018, p. x). In 2001 the United Nations Environment Programme (UNEP) and Global Environment Facility (GEF) co-financed the Solar and Wind Energy Resource
Assessment (SWERA) program in 13 countries\textsuperscript{93}. In Ethiopia, Deutsches Zentrum fuer Luft- und Raumfahrt e.V (German Aerospace Centre) conducted the studies, and a final report was released in 2004. Measured at 50m above ground and on a 5 km\textsuperscript{2} resolution, SWERA classified Ethiopia into seven wind regimes based on wind speed and wind power density (see table 5.1). The study found that significant wind concentration zones were along the Great East Africa rift valley which stretches from the north through the centre and towards the east (Ethiopian Rural Energy Development and Promotion Center, 2007). Additionally, using a 5 MW/km\textsuperscript{2} and 80\% turbine operation time, the study estimated a total of 100 gigawatts (GW) potential which translates to about 890 terawatt-hours (TWh) from an area of about 166 000km\textsuperscript{2} in which more than 20 000km\textsuperscript{2} was utilizable for grid-connected electricity generation (Ethiopian Rural Energy Development and Promotion Center, 2007; Hydrochina Corporation, 2012).

**Table 5.1 Wind resource classification by SWERA**

<table>
<thead>
<tr>
<th>Regime</th>
<th>Classification</th>
<th>Wind speed range</th>
<th>Wind power density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regime 1</td>
<td>Poor</td>
<td>3.5–5.6 m/s</td>
<td>50–200 W/m\textsuperscript{2}</td>
</tr>
<tr>
<td>Regime 2</td>
<td>Marginal</td>
<td>5.6–6.4 m/s</td>
<td>200–300 W/m\textsuperscript{2}</td>
</tr>
<tr>
<td>Regime 3</td>
<td>Moderate</td>
<td>6.4–7.0 m/s</td>
<td>300–400 W/m\textsuperscript{2}</td>
</tr>
<tr>
<td>Regime 4</td>
<td>Good</td>
<td>7.0–7.5 m/s</td>
<td>400–500 W/m\textsuperscript{2}</td>
</tr>
<tr>
<td>Regime 5</td>
<td>Excellent</td>
<td>7.5–8.0 m/s</td>
<td>500–600 W/m\textsuperscript{2}</td>
</tr>
<tr>
<td>Regime 6</td>
<td>Excellent</td>
<td>8.0–8.8 m/s</td>
<td>600–800 W/m\textsuperscript{2}</td>
</tr>
<tr>
<td>Regime 7</td>
<td>Excellent</td>
<td>Above 8.8 m/s</td>
<td>Above 800 W/m\textsuperscript{2}</td>
</tr>
</tbody>
</table>

Source: Data obtained from Ethiopian Rural Energy Development and Promotion Center

After the completion of SWERA, the Ethiopian government invited the German Society for International Cooperation (GIZ)-Technical Expertise for Renewable (TERNA) in cooperation with EEPCo to conduct a feasibility, financial, environmental and social impact assessment for wind farm development. Several reports were released\textsuperscript{94} which created a wind atlas for Ethiopia and also identified Ashegoda, Mossebo, Aysha, Debre Berhan, Nazareth (Adama), Assela, Sululta, Harena Tele, Gondar and Maymekden as feasible sites to develop wind farms. TERNA sub-contracted Lahmeyer International to conduct feasibility studies for Harena, Ashegoda and Nazareth sites which as per TERNA findings had sufficient wind energy potential with annual averages of 6.86 m/s, 8.50 m/s and 9.36 m/s respectively (GTZ-TERNA, 2005; Kebede, 2011). Of the 10 SWERA identified sites, Lahmeyer International conducted

\textsuperscript{93} Ethiopia, Ghana, Kenya, Bangladesh, China, Nepal, Sri Lanka, Brazil, Cuba, Guatemala, Honduras and Nicaragua.

the feasibility studies for Ashegoda\textsuperscript{95} and Mossebo-Harena\textsuperscript{96} only. It is noted that Gondar lacked additional topographic information and did not have sufficient space for a 50 MW wind farm (GTZ-TERNA, 2005). Adama was avoided because of the presence of the Ethiopian Television Network booster (GTZ-TERNA, 2006). Findings from the two feasibility studies concluded with the prioritisation of Ashegoda, later developed by Vergnet, a French firm.

Meanwhile, as part of Going Abroad strategy, the Chinese government funded HydroChina to undertake a Wind and Solar Energy Master Plan for Ethiopia in 2010. The study, like SWERA, classified Ethiopia into seven wind regimes. The study found that Ethiopia is endowed with 3.03 TW wind resource reserve of which 1.599 TW was exploitable, out of which 1.35 TW could be potentially installed. Fifty-one wind farm sites were identified and proposed for development with a potential installed capacity of 6720 MW (Hydrochina Corporation, 2012). Therefore, existence of abundant wind resources in Ethiopia drove the Ethiopian government to develop Adama wind farms.

5.1.3 Global climate change agenda and the push for renewable energy

Human-induced climate change and variability has created a significant drive towards global deployment of renewable energy. The climate change problem is mostly an energy problem, so to fix the climate problem, there is need for new ways of generating energy. As such, over the past decade, financing for energy development is shifting towards renewable energy in line with global commitments to reduce greenhouse gas emissions. According to United Nations Framework Convention on Climate Change (UNFCCC), African countries contributes less than 4\% to global carbon dioxide (CO$_2$) emissions from energy and industrial sources, yet are stricken mostly by the effects of climate change and variability (UNFCCC, 2006). Ethiopia contributes 141 million metric tons of carbon dioxide equivalent (MtCO$_2$e), which is 0.3\% of the global GHG emissions of 46,906 MtCO$_2$e (USAID, 2015). To reduce its share of GHG emissions, Ethiopia has adopted a Climate Resilient Green Economy Strategy (CRGES) policy framework which aims to lower emissions from a Business As Usual forecast of 400 Mt CO$_2$e to 145 Mt CO$_2$e or lower by 2030 (Federal Democratic Republic of Ethiopia, 2015). Consistent with the SDGs and international efforts such as Africa Renewable Energy Access Program (AFREA I & II)—Energy Sector Management Assistance Program\textsuperscript{97}, Sustainable Energy for All—African Hub\textsuperscript{98}, and Power Africa\textsuperscript{99}, Ethiopia and other African countries are seen as having the “opportunity to leapfrog into a new era of economic growth and expansion

\textsuperscript{95} GTZ, Wind Energy Program TERNA-Ethiopia; Feasibility study for Wind park development in Ethiopia and Capacity building: Ashegoda Wind Park Site; Final report, August 2006.
\textsuperscript{96} GTZ, Wind Energy Program TERNA-Ethiopia; Feasibility study for Wind park development in Ethiopia and Capacity building: Mesobo-Harena Wind Park Site; Final report, August 2006.
\textsuperscript{97} http://www.esmap.org/re_mapping
\textsuperscript{99} https://www.usaid.gov/powerafrica/ethiopia

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driven by clean power generation” (Shen & Power, 2017, p. 679). As argued by a lecturer from EFRSSI, a government-funded think tank, “one of the drivers for the Ethiopian government to develop the wind farms is because of global policy orientation where the focus has shifted to renewable energy due to climate change factors” (Interview 20170712135318). Similarly, an official from the AU also claims that “there is also generally a global push towards renewable energy. Most financial institutions will hardly finance non-renewables. So, there is a constraint for African countries to develop non-renewable energy” (Interview 20170711143359). The fact that global financing of energy infrastructure development is shifting towards renewables suggest that Africa’s transition to renewable energy is and will be shaped by large international players (Power et al., 2016). In the next section, I explore the drivers for Chinese involvement in the financing and development of Adama wind farms.

5.2 Drivers for Chinese involvement in Adama wind farms

5.2.1 ‘Going Abroad’: government-backed internationalisation
A key driver for Chinese enterprises involved in the financing and development of Adama wind farms was the Chinese government-backed ‘Going Abroad’ strategy. The strategy is traced to 1999 when the Chinese State Council issued Mandates on Encouraging Enterprises to Develop Overseas Processing and Assembly Business. In the 10th Five Year Plan, a directive was issued specifically targeting the promotion of state-owned enterprises to do business abroad. This strategy as argued by Conrad et al., (2011, p. 5) “does not merely focus on increasing exports, but relies on establishing a comprehensive presence of Chinese companies in foreign markets through asset acquisition and investments”. In 2009, report number 38 [2009] of the State Council promoted the international scaling-up of wind energy equipment to desaturate the domestic market (Chinese State Council, 2009). Two years later, the Chinese Ministry of Commerce (MOFCOM) and other concerned institutions released The Opinions for Promoting the Internationalisation Development of Strategic Emerging Industries. The report further promoted the internationalisation of Chinese entities by supporting them through fiscal incentives, financing, export credit and export credit insurance100 in strategic emerging industries including new energy (wind, solar) in other emerging markets in Africa, Asia and Latin America (Chinese Ministry of Commerce, 2011).

Several Chinese enterprises involved in the manufacturing of wind turbines and the development of wind farms have received financial support from EXIM Bank and China Development Bank at a very low-interest rate to do business abroad. Research suggests that China Development Bank extended $6 billion to Goldwind and $5 billion to United

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100 Such services have been provided by China Export and Credit Insurance Corporation (SinoSure) which is a state-owned enterprise responsible at insuring against commercial and political risks. Data to validate the involvement of SinoSure in insuring for Adama wind farms was unavailable. But research conducted by Shen & Power (2017) suggest that they are generally involved in insuring such kind of investments.
Power/Longyuan to develop wind farms in Pakistan. It further extended $3 billion to Beijing Construction Engineering Group to develop a wind farm in Argentina, and $2.2 billion to Sinovel-Mainstream joint venture 16 GW deals in Europe (Tan et al., 2013; Zhang, Wang, Wang, & Zhao, 2015).

Chinese enterprises also benefit from the support they receive from the Chinese government’s policy towards Africa. The Chinese government periodically design Africa Policy papers (2006, 2010, 2013 and 2015), from which Chinese enterprises operationalise their engagement strategies with Africa. Also, in 2000, the Chinese government together with African countries, established the FOCAC as an institutional framework to organise the engagements. In the 2009 FOCAC summit, China pledged to develop 100 clean energy projects. In 2015, during the 6th FOCAC summit, China pledged $60 billion. In 2018, the most recent forum, China committed $60 billion of which $15 billion was allocated to grants, interest free and concessional loans, $20 billion for credit lines, $10 billion for special fund for development financing, $5 billion for special fund for financing imports from Africa and $10 billion for investment in the next three years. As such, “the expansion of Chinese involvement in African’s renewable energy development is, in many ways, complementary to wider Chinese central government strategies for foreign cooperation with the continent” (Shen & Power, 2017, p. 681). As noted by CGCOC employee:

“The Chinese companies working in Ethiopia always take interest or we always pay attention into China relationship, in a bigger context. So the context I think is what we are looking for in line with the policy direction has an influence in our decision making for sure because we know if that’s what China want. If that is something that the Chinese government and Ethiopian government want, then is something that we are sure will get maximum support from both governments for financing, policy and investment and facilitation. But if it is something that is not on the current focus for both governments, we know it will not get the best attention” (Interview 20171020140152).

Because of the depth of cooperation between Chinese and African governments, a majority of Chinese enterprises enjoy a great depth of political buy-ins in the majority of African countries they do business. This explains one of the drivers why the Chinese enterprises were involved in the financing and development of the Adama wind farms.

5.2.2 Strategic ‘new’ market seeking

Strategic new market seeking has been identified by Chinese enterprises as one of the drivers for their involvement in Adama wind farms. Several factors pushed the Chinese enterprises to strategically look for a new market in Ethiopia. The first factor was competition and saturation of the domestic market. The renewable energy policy and regulatory framework created
massive domestic industrial capabilities, which resulted in overcapacity and excess supply of technology (see table 5.2). As issued by the National Development Reform Commission and approved by the Chinese State Council in 2009:

“In many areas, the problem of overcapacity and redundant construction is still very prominent. In particular, not only the traditional industries but also emerging industries such as wind power equipment severe shrinkage of external demand, the contradiction of overcapacity has intensified. We actively promote the large-scale and internationalisation of the wind power equipment industry (translation)” (Chinese State Council, 2009).

In 2008 more than eighty companies had registered as manufacturers of wind turbine technology in China (Chinese State Council, 2009). As a result, from 2005 to 2010, installed electricity generation capacity increased from 1.3 GW to 44.7 GW, well above the targeted 5 GW. By the end of 2015, cumulative installed capacity had reached 129.34 GW exceeding the targeted 100 GW (Sahu, 2018). This led to local market saturation and massive domestic competition, forcing companies to look for new markets elsewhere.

### Table 5.2 Chinese renewable energy policy and regulatory interventions

<table>
<thead>
<tr>
<th>Year</th>
<th>Policy/regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>National Renewable Energy Law</td>
</tr>
<tr>
<td>2007</td>
<td>Medium &amp; Long-Term Renewable Energy Development Plan 2007-2020</td>
</tr>
<tr>
<td>2009</td>
<td>Notice on Policy to Improve Grid-Connected Power Pricing for Wind Power, set feed-in tariff for wind Curbing Excess Capacity and Redundant Construction of Several Industries and Promoting Healthy Development of Industries, including wind equipment and polysilicon</td>
</tr>
<tr>
<td>2010</td>
<td>National Law for Renewable Energy amended guaranteed electricity generated from renewable sources to be purchased in full amount. Opinions on Promoting Healthy Development of the Wind Equipment Industry called for the internationalisation The decision of the State Council on Accelerating the Fostering and Development of Strategic Emerging Industries, including solar PV and wind.</td>
</tr>
<tr>
<td>2011</td>
<td>Guidelines on Enabling Strategic Emerging Industries to Go Overseas, encouraging renewable energy industries to acquire key technology overseas.</td>
</tr>
<tr>
<td>2012</td>
<td>12th Five-Year Plan for Strategic Emerging Industries Development Draft 12th Five-Year Plan for the Renewable Energy Development</td>
</tr>
</tbody>
</table>

Source: (Tan et al., 2013).

For the Chinese enterprises, the competition was not only limited to the domestic market but also in the American and the European markets. Between 2002 and 2012 Chinese enterprises were involved in eight wind energy projects in the USA, followed by 5 in Australia and some in South Africa, Pakistan, Singapore, Bulgaria and Canada (Tan et al., 2013). Despite the
Chinese having invested more than $12 billion in Europe’s and Australia’s wind energy sector between 2016 and 2018, (Nicholas, 2018) (see in table 5.3) their foreign market penetration has been low because of fierce competition from established European and American companies such as Vestas (Denmark), Siemens Gamesa (Spain), General Electric (USA) and Enercon, Nordex, and Senvion (Germany). Available data shows that by 2017, three Chinese companies were in the top 10 in terms of global installed turbine market share (see table 5.4). That said, the majority of the Chinese enterprises’ market share was in China. For example, Goldwind was globally ranked third in 2018, but more than 90% of the market share was in China (REN21, 2018). Envision and Mingyang were part of the global top 10 with no market share outside China as of 2017. This is not surprising, as of 2017, China was the largest wind energy market destination adding about 19.7 GW (REN21, 2018).

Table 5.3 Chinese wind energy acquisitions in developed countries 2016-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Acquirer</th>
<th>Amount (US$ million)</th>
<th>Project</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>China General Nuclear</td>
<td>430</td>
<td>100% in Gaelectric’s 14 wind farms</td>
<td>Ireland</td>
</tr>
<tr>
<td>2016</td>
<td>China Three Gorges</td>
<td>340</td>
<td>49% in EDP Poland Wind Farms</td>
<td>Poland</td>
</tr>
<tr>
<td>2016</td>
<td>China Three Gorges</td>
<td>100</td>
<td>49% in EDP Italy Wind Farms</td>
<td>Italy</td>
</tr>
<tr>
<td>2016</td>
<td>China Three Gorges</td>
<td>1800</td>
<td>80% in Blackstone’s Meereswind farm</td>
<td>Germany</td>
</tr>
<tr>
<td>2016</td>
<td>State Power Investment Corp</td>
<td>230</td>
<td>100% in Tasaliga Wind Farm</td>
<td>Australia</td>
</tr>
<tr>
<td>2016</td>
<td>State Development and Investment Corp</td>
<td>260</td>
<td>100% in Beatrice and Inch Cape offshore wind farms</td>
<td>UK</td>
</tr>
<tr>
<td>2016</td>
<td>China General Nuclear</td>
<td>Undisclosed</td>
<td>100% in Brening onshore wind farm</td>
<td>UK</td>
</tr>
<tr>
<td>2016</td>
<td>State Power Investment Corp</td>
<td>2125</td>
<td>Pacific Hydro’s wind and Hydro assets</td>
<td>Australia</td>
</tr>
<tr>
<td>2017</td>
<td>China Resources Power</td>
<td>803</td>
<td>30% in the Dudgeon offshore 402MW wind farm</td>
<td>UK</td>
</tr>
<tr>
<td>2017</td>
<td>China Energy Investment Corp</td>
<td>3490</td>
<td>75% in 4 wind parks in Greece</td>
<td>Greece</td>
</tr>
<tr>
<td>2017</td>
<td>China Investment Corp</td>
<td>390</td>
<td>10% in Equis Energy</td>
<td>Singapore</td>
</tr>
<tr>
<td>2017</td>
<td>China Three Gorges</td>
<td>283</td>
<td>49% in EDP Portugal wind farms</td>
<td>Portugal</td>
</tr>
<tr>
<td>2017</td>
<td>Xinjiang Goldwind</td>
<td>82</td>
<td>100% on Origin Energy’s Stockyard Hill wind farm</td>
<td>Australia</td>
</tr>
<tr>
<td>2017</td>
<td>Xinjiang Goldwind</td>
<td>140</td>
<td>Installation of the 160MW Rattlesnake wind project</td>
<td>USA</td>
</tr>
<tr>
<td>2018</td>
<td>China General Nuclear</td>
<td>Undisclosed</td>
<td>75% of 650MW onshore wind project</td>
<td>Sweden UK</td>
</tr>
<tr>
<td>2018</td>
<td>PowerChina</td>
<td>Undisclosed</td>
<td>80% of Tasmanian wind project</td>
<td>Australia</td>
</tr>
</tbody>
</table>


Because of this competition, Chinese enterprises were forced to look elsewhere for alternative markets in which Ethiopia was one. As confirmed by a HydroChina engineer involved in the construction of the two wind farms:

“First of all, is because we have finance for the project. We also get support to develop the wind farms. We needed to help Ethiopia develop the wind farms. We have the technology; we have the money, we needed the market also.” (Interview 20171031142927).
Table 5. 4 Global market share of wind turbine manufactures in 2017

<table>
<thead>
<tr>
<th>Rank</th>
<th>Enterprise</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vestas</td>
<td>Denmark</td>
</tr>
<tr>
<td>2</td>
<td>Siemens Gamesa</td>
<td>Spain</td>
</tr>
<tr>
<td>3</td>
<td>Goldwind</td>
<td>China</td>
</tr>
<tr>
<td>4</td>
<td>General Electric</td>
<td>USA</td>
</tr>
<tr>
<td>5</td>
<td>Ennercon</td>
<td>Germany</td>
</tr>
<tr>
<td>6</td>
<td>Envision</td>
<td>China</td>
</tr>
<tr>
<td>7</td>
<td>Nordex</td>
<td>Germany</td>
</tr>
<tr>
<td>8</td>
<td>Ming Yang</td>
<td>China</td>
</tr>
<tr>
<td>9</td>
<td>Senvion</td>
<td>Germany</td>
</tr>
<tr>
<td>10</td>
<td>Suzlon</td>
<td>India</td>
</tr>
</tbody>
</table>

Source. (REN21, 2018).

The second factor was the need to reduce transportation and logistics costs in overseas markets (Buckley et al., 2007). This was going to be achieved by setting up a factory to manufacture wind turbine equipment in Ethiopia, targeting the East African market. Part of the agreed plan between the Ethiopian government and Chinese enterprises included the establishment of a factory to manufacture blade and tower parts in Ethiopia. As noted in 2012 by Wang Bin, the President of HydroChina:

“HydroChina commits itself for long term development with investment in large construction machinery, which will improve the equipment status and construction capability of Ethiopia. We also plan to invest in manufacturing of blades and towers in Ethiopia” (Xinhua News Agency, 2012).

According to Goldwind employee, “the Ethiopian government, together with HydroChina, wanted Goldwind to establish a factory to manufacture all the project towers and blades in Ethiopia” (Interview 20180120178596). A Chinese source alleged that Goldwind later refused to fulfil the agreement because of “unrealistic demands by Metal and Engineering Corporation (METEC)\(^\text{101}\) which demanded a more than 50% ownership of the project, and yet the capital was not coming from them” (Interview 20170801090344). Furthermore, Goldwind “refused because of fear of violation of the intellectual property rights issues” by Metals and Engineering Corporation (METEC) (Interview 20180120178596).

Although the plan failed, setting up a factory in Ethiopia was aimed at the reduction of transportation and logistics cost thereby maximising profits. An engineer working for

\(^{101}\)A military-industrial corporation run by the Ethiopian Ministry of Defence
HydroChina suggested that “we are interested in helping Ethiopia develop and also at the same time generate profit for our business” (Interview 20171031142927). Consistent with other studies (see Wang & Zhao, 2017) on the drivers of Chinese overseas investments, the involvement of Chinese companies in the Adama wind farms was driven by the desire for profit maximisation—where cost of production (labour, raw materials, transportation, tax breaks) is comparatively lower than in China.

5.2.3 Climate change and reputational considerations

The involvement of Chinese enterprises in Adama wind farms was driven by the need to portray China as an emerging but responsible (Newell et al., 2016) country on climate change mitigation. Conrad, Fernandez and Houshyani explain that “international climate policy has become one of the most prominent fields in which international reputation can be gained or lost” (B. B. Conrad et al., 2011). As such, “China's investments in Africa's renewable energy sector can reaffirm its position as a lead nation among developing countries, protecting vulnerable countries from the impacts of global warming and fostering their economic development” (Ibid, p.20). A Chinese delegate at the 2017 China-Africa Think Tank Forum in Addis Ababa argued that “Adama wind farms is green development. So, we will enhance projects like these to make, for society and environment-friendly” (Interview 20170621123109). For CGCOC, the two wind farms “can win you the reputation for green energy” (Interview 20170801090344).

According to CGCOC, C-EXIM Bank was happy to finance the two projects for reputational considerations:

“Since these are green projects, we cannot deny the pride and reputation motive, because these are high profile status projects. Projects like these we would want to do exceptionally well so as to promote our capabilities and abilities especially under the cooperation framework we have to make it exemplary since these are clean energy development projects” (Interview 20171020140152).

While reputation and climate change considerations could have driven the Chinese involvement in the Adama wind farms, it is an outlier. The Chinese involvement in Adama wind farms “is not primarily driven by climate change imperatives” but by the need to build globally competitive wind energy industry players (Shen & Power, 2017, p. 681). This is confirmed by an employee of EEP that, “the Chinese do not really care about climate change issues, they are currently the largest emitters” (Interview 201731115916). As such, climate change reasons “do not appear to significantly drive or shape China’s actions in Africa’s renewable energy sector” (Conrad et al., 2011) but demonstrates Chinese future commitment to climate change. Such commitment is in line with the United Nations Principles for Responsible
Investment and SDGs. Next, I examine the motivations for Ethiopia to develop Adama wind farms.

5.3 Motivations for Ethiopia to develop Adama wind farms

5.3.1 Diversifying the energy mix and improving resilience capacity

Diversifying the energy mix and improving resilience in the electricity sector was the primary motivation for the Ethiopian government to develop the two wind farms. Ethiopia’s location along the Intertropical Convergence Zone (ITCZ) makes it more susceptible to climate change induced droughts. Research suggests that Ethiopia is a drought-stricken country and has experienced severe droughts in 1965, 1969, 1972, 1976, 1978, 1982, 1984, 1987, 1990, 1992, 1993, 1997, 2002, 2004, 2010 (Richman, Leslie, & Segele, 2016; Viste, Korecha, & Sorteberg, 2013) and recently in 2015/16 (Philip et al., 2017). Drought affects rainfall patterns, thereby forcing hydropower to operate below capacity as there will not be enough water to rotate the turbines. As of 20 August 2018, hydropower dominated Ethiopia’s electricity sector at 3814 MW (88.42%), followed by wind at 324 MW\(^{102}\) (7.51%), diesel at 143 MW (3.31%), geothermal at 7.3 MW (0.16%) and waste to energy at 25 MW (0.57%)\(^{103}\). The domination of hydropower poses massive challenges to grid stability, especially during the dry season and in times when the country experiences climate change induced droughts. Interview data with high-level government officials from MoWIE provides the following explanations:

“Power generation is mostly from hydropower. In the dry season, there is a risk of low generation, and in order to compensate for those dry periods, we need to bring more wind power into the grid” (Interview 20170531143837).

“We wanted to start diversifying a little bit because 100% dependent on hydropower also exposes your power system to risks, like frequent drought. The idea was to start introducing other technologies that are becoming mature technologically and economically at least competitive enough so that it also helps stabilises the system, improve resilience and energy security” (Interview 20171011140053).

Energy security considerations thus motivated the Ethiopian government to develop the two wind farms. Wind was therefore explicitly chosen because of complementarity with hydropower. In the dry season (October-March) wind resource is high, and the water level is low and vice versa.

\(^{102}\) Including Adama wind farms.

\(^{103}\) MoWIE and EEP provide contrasting statistics here. For MoWIE hydropower is 3810MW and 3814MW for EEP; for diesel, MoWIE states 143MW and for EEP is at 104MW; and for Geothermal, MoWIE states 7MW while EEP claims 7.3MW. By September 2018, only 25MW for waste to energy was commissioned although the targeted generation capacity was 50MW.
5.3.2 Targeting new electricity generation plants

The Ethiopian government has set an ambitious installed electricity generation capacity of 17000 MW by the end of GTP II (2015/16—2020/21). Hydropower will contribute 13817 MW followed by wind at 1224 MW, solar at 300 MW, geothermal at 577 MW, reserve fuel (gas) at 509 MW, waste at 50 MW, sugar at 474 MW and biomass at 257 MW (National Planning Commission, 2016, p. 179). Given its track record of quadrupling generation capacity from 850 MW to 4300 MW, Ethiopia is now third-ranked in terms of electricity generation in Africa (Federal Democratic Republic of Ethiopia, 2019). However, evidence on the ground suggests that it is highly unlikely that the Ethiopian government will achieve the target. The development of Adama wind farms was an effort to meet this target. Increasing electricity generation is strengthened by two arguments. First, electricity is a factor of production, and limited supply reduces manufacturing and industrialisation prospects. Access to electricity increases industrial productivity, which in turn contributes to poverty reduction (Bacon & Kojima, 2016). As identified by the CRGES policy framework:

“Electricity is a fundamental enabler of modern economic development, from powering cities and fuelling industrial activity to pumping water for irrigation purposes in agriculture. If not adequately scaled up to support economic development, it also risks becoming a fundamental bottleneck to growth. To support economic development at an annual growth rate of more than 10% that the government aspires to, it is necessary to expand electric power supply” (Federal Democratic Republic of Ethiopia, 2011, p. 25).

With Ethiopia’s more than 109 million people and more than 10% GDP growth over the past few years, the demand for electricity is increasing. A MOWIE official notes that:

“No we have a huge demand for electricity. Our yearly demand is rising at 25%. If you look at demand per sector, the industry is much higher, more than 30% on yearly basis. This demand drives the market, and to satisfy this demand, you need to build more energy plants” (Interview 20170531143837).

Second, Ethiopia is one of the poorest countries in terms of per capita annual electricity consumption, estimated to be 100 kWh below the 510 kWh average for sub-Saharan Africa

104 Grand Ethiopian Renaissance Dam (GERD) (6450 MW), Geba I & II (372 MW), Genale VI (246 MW), Sor (5 MW), Hallele Werabessa (436 MW), Chmoga Yeda I & II (280 MW), Genale V (100 MW), Tams (1700 MW), Gibe IV (1472 MW), Birbir (467 MW), Upper Dabus (326 MW), Gibe V (660 MW), Lower Dedessa (550 MW), Tekeze II (450 MW), Lower Dabus (250 MW), Gojeb (150 MW) and Wabi Shebele (87 MW) (Federal Democratic Republic of Ethiopia, 2017).

105 Currently, there are about 51 wind farm sites that have been identified by MOWIE, EEP and HydroChina in which five are under development namely Assela (100 MW), Aysha (300 MW), Debret Berhan (100 MW), Adama 3 (150 MW) and Mossoro (42 MW).

106 Metehara (100 MW), Mekele (100 MW) and Humera (100 MW).

107 Corbetti (200 MW), and Tulumoye-Abaya (150 MW).
(Federal Democratic Republic of Ethiopia, 2017). To address this challenge, the government targets 100% Universal Electricity by 2025 in which 65% will be grid and 35% off-grid connection (Federal Democratic Republic of Ethiopia, 2019). Ethiopia’s commitment to increase new energy generation plants paying limited attention to distribution and transmission aspects has been criticised by many, including those in MOWIE’s top echelons of decision making:

“Coming from a revolutionary democracy philosophy, you will not be surprised that the government is adopting such an ambitious policy of increasing energy generation. But the challenge is not on energy generation but transmission and distribution. Yes, electricity is a public good, and any sitting government would strive to ensure that its citizenry has access each and every time, but the challenges, especially in the context of Ethiopia, is transmission and distribution. So far, we have a generation capacity of about 4300 MW. But more than 70% do not have access. Some are interested in the geographic grid distribution, but how much does that translate into household access?” (Interview 20170609111018).

This quote provides a critique of the Ethiopian government's over-commitment to increasing new electricity generation plants and doing less to develop new and rehabilitate existing distribution and transmission lines. Nonetheless, developing new plants in this regard, motivated the government to construct Adama wind farms.

5.3.3 Electricity export motive
Ethiopia is currently experiencing a foreign currency shortage due to poor export performance, declined diaspora remittances and increased illicit financial flows (Maasho, 2018). Electricity has been identified as a major export commodity and generator of much needed foreign currency that contributes to “financial sustainability of the sector and provide relief to the country’s balance of payments” (Federal Democratic Republic of Ethiopia, 2019, p. 6). The two wind farms were therefore developed to fulfil the electricity export motive. For an embassy official in Addis Ababa, “energy is Ethiopia’s first most important target which it aspires to achieve, actually not to meet the demand of the populace but to export it” (Interview 20170724143353). According to the Director of Public Relations and Communications of MOWIE, from July 2016 to April 2017, the country exported electricity to Djibouti and Sudan earning $49.4million (Interview 20170608141010). Also, the 2017/18 financial year saw a doubled electricity export of 1.466 billion kWh to Sudan ($47.5 million) and Djibouti ($34.1 million) generating $81.6million (APA News, 2018). Also, more exports are planned, and as of 2017, the country had already signed power purchase agreements with Kenya, South Sudan and Tanzania while Rwanda and Burundi have shown interest. Already, a 2000 MW
transmission line for 1045 km is under construction, funded by African Development Bank and contracted to the Chinese.

The desire to export electricity in the east African region also goes with a salient motive of the Ethiopian government to control the East Africa Power Pool (EAPP). If Ethiopia can export electricity to the 10-member block, it will be able to promote regional peace and stability especially tensions with Egypt over Blue Nile watershed management and the Grand Ethiopian Renaissance Dam. An official from EFRSSI claims that “if Ethiopia can sell electricity to Djibouti, Sudan and Kenya and for others, that will bring peace” (Interview 20170630114108). However, the Ethiopian government may use ‘peace’ as legitimatory discourse to extend its geopolitical ambitions in the region.

5.3.4 Regional electricity infrastructure distribution
Ethiopia has an uneven power infrastructure distribution (see table 5.5). The government’s motivation for developing not only Adama but also Ashegoda wind farms was an attempt to balance the regional power plants. Development of power plants is in line with the EPRDF coalition that wind and solar were to be deployed in regions that do not or have few hydropower plants (Interview 20170802142852). Future wind farms are regionally distributed, taking into consideration wind resource potential and location of already existing power plants. As such, Assela (100 MW) will be in the Oromia, Aysha (300 MW) in Somali, Debre Berhan (100 MW) in Amhara, Adama 3 (150 MW) in Oromia, Mossobo (42 MW) in Tigray. According to an official from MOWIE:

“Hydropower has specific areas of the country that have abundant hydropower resources. Most of the investment in infrastructure would be channelled towards those areas, but by developing solar, wind and geothermal, that also spread out this investment across the country, because those places that got good wind potential, may not necessarily have other resources to develop” (Interview 20171011140053).

Regional electricity infrastructure distribution also contributes to spreading out infrastructure development and the resultant forward and backward linkages. It creates local employment as claimed by a MOWIE official:

“During the construction period, job opportunities are created, and some other social values are created, even after the construction period is over people get employment opportunity all the time and all those other ancillary benefits which need also to be spread out. If you have noticed, this Adama 1 and Adama 2 are in central Ethiopia,}

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108 In 2012 comprised Burundi, Democratic Republic of Congo (DRC), Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, Libya and Uganda.

109 Aspects of local employment creation are discussed in detail in chapter 7.
Ashegoda is far in the north we are trying other wind projects on our planning, under consideration, some are far to the south, far east, so that’s also one way of spreading out investment” (Interview 20171011140053).

However, this theory of EPRDF coalition driven distribution of electricity infrastructure is problematic if one takes a closer look at the current and planned distribution of power plants. Of the nine regions, Afar, Gambela and Harari do not have any plants planned for development which raises questions about the distribution of power plants.

Table 5. 5 Active power infrastructure regional distribution

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Installed capacity (MW)</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gilgel Gibe III</td>
<td>1870</td>
<td>SNNP</td>
</tr>
<tr>
<td>2</td>
<td>Beles</td>
<td>460</td>
<td>Amhara</td>
</tr>
<tr>
<td>3</td>
<td>Gilgel Gibe II</td>
<td>420</td>
<td>SNNP</td>
</tr>
<tr>
<td>4</td>
<td>Takeze</td>
<td>300</td>
<td>Tigray</td>
</tr>
<tr>
<td>5</td>
<td>Gilgel Gibe I</td>
<td>184</td>
<td>Oromia</td>
</tr>
<tr>
<td>6</td>
<td>Melka Wakena</td>
<td>153</td>
<td>Oromia</td>
</tr>
<tr>
<td>7</td>
<td>Fincha</td>
<td>134</td>
<td>Oromia</td>
</tr>
<tr>
<td>8</td>
<td>Amenti Neshi</td>
<td>95</td>
<td>Oromia</td>
</tr>
<tr>
<td>9</td>
<td>Tis Abay II</td>
<td>73</td>
<td>Amhara</td>
</tr>
<tr>
<td>10</td>
<td>Awash II</td>
<td>32</td>
<td>Oromia</td>
</tr>
<tr>
<td>11</td>
<td>Awash III</td>
<td>32</td>
<td>Oromia</td>
</tr>
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<td>12</td>
<td>Koka</td>
<td>43</td>
<td>Oromia</td>
</tr>
<tr>
<td>13</td>
<td>Tis Abay I</td>
<td>11.4</td>
<td>Amhara</td>
</tr>
<tr>
<td>14</td>
<td>Aba Samuel</td>
<td>6.6</td>
<td>Oromia</td>
</tr>
<tr>
<td>15</td>
<td>Adama II</td>
<td>153</td>
<td>Oromia</td>
</tr>
<tr>
<td>16</td>
<td>Ashegoda</td>
<td>120</td>
<td>Tigray</td>
</tr>
<tr>
<td>17</td>
<td>Adama I</td>
<td>51</td>
<td>Oromia</td>
</tr>
<tr>
<td>18</td>
<td>Aluto geothermal</td>
<td>7.3</td>
<td>Oromia</td>
</tr>
<tr>
<td>19</td>
<td>Reppie</td>
<td>25</td>
<td>Addis Ababa</td>
</tr>
<tr>
<td>20</td>
<td>Diesel</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4313.3</td>
<td></td>
</tr>
</tbody>
</table>

Source: Fieldwork data obtained from EEP and MOWIE, 2018

5.3.5 Learning and experimental motive
Wind energy is a new technology in Ethiopia, and a majority of EEP and MOWIE staff do not have operations and maintenance capacity. It is not surprising that given the technical limitations of the government, it instead developed all the Adama wind farms under an EPC\textsuperscript{110} plus financing scheme to hedge against risks and uncertainties associated with Greenfield projects. An official from MOWIE suggests that:

\textsuperscript{110} Discussed in detail in the chapter 6.
“We decided to go for these three\textsuperscript{111} plants as an experiment. The first feasibility studies of wind energy were completed in 2004 and 2006, but no developers were interested because of risk and uncertainty. The idea was then to pilot, experiment and draw lessons from these three wind farms. We then decided to use three different technologies, and two different sources of developers, that is one from Europe (France) and two from the Chinese. But going forward we intend to leave this space for private developers, which will be choosing their own technology. We are even going to put threshold, they will have to use progressively more and more Ethiopian inputs” (Interview 20171011140053).

In the beginning development of wind energy was not financially feasible. As alluded to by two officials, one from MOWIE and another from EEP, there was resistance and it was difficult to convince those in authority at that time. One official noted that “at some point in time we almost gave up the pursuit, but now everyone wants to develop the wind energy in Ethiopia” (Interview 20170731110952). Finally, “we were given a chance to prove the viability and success of wind since everyone was used to hydropower” (Interview 20170606140042). Although many bureaucrats and those in positions of power were not initially keen to develop the wind farms, the development of Adama wind farms was motivated by the need to learn and experiment.

5.4 Motivations for the Chinese state and enterprises to develop Adama wind farms

5.4.1 Request by the Ethiopian government

The primary motivation for Chinese enterprises involved in the financing and developing of Adama wind farms was because of the request by the Ethiopian government. According to an employee of HydroChina, MOFEC approached MOFCOM for assistance to develop Adama and Mesebo Herena wind farms. The Ethiopian government indicated explicitly in their application that they were requesting funding for preferential export buyer’s credit from CEXIM Bank. This request was made after HydroChina and EEP had completed the Solar and Wind energy master plan where fifty-one sites were identified. MOFCOM agreed to finance the projects and considered the development of wind farms as demonstration projects. As a result, the wind farms received political buy-ins from CPC and EPRDF. An employee of CGCOC explains that the primary motivation of being involved in the Adama wind farms related to:

“The need for the country. We basically rely from Ethiopia if they have demands or needs because you know every project should be outstanding for it to be financed by the EXIM Bank or any other Chinese financiers and it should meet some certain standards as per EXIM Bank principles. But if the demand by the host government is

\textsuperscript{111} Including Adama 1, 2 and Ashegoda wind farms.
not there, then we won’t have a market, and that is very important” (Interview 2017020140152).

Similarly, a HydroChina employee reiterated that they were involved in the development of the wind farms because of the:

“Request from the Ethiopian government. They wanted to construct wind plant to cover for hydropower in the dry season they could only mobilise small amount, and the Chinese government has preferential loan” (Interview 20171229144752).

The quotation above shows that the Chinese enterprises were involved in the development of Adama wind farms upon request of the Ethiopian government. As such, Chinese enterprises involvement in the development of infrastructure in Africa should be interpreted as demand based.

5.4.2 Favourable investment incentives
The second underlying motivation for Chinese enterprises was the favourable investment incentives. Ethiopia promotes itself as having a favourable investment climate compared to the rest of East Africa. Specifically, in the electricity sector, EIC officials explains that Ethiopia offers:

“Income tax exemption for electricity generation, transmission and distribution sector for 4 to 5 years. There is also customs duty payment exemption on capital goods and construction materials, and investors have the right to ask refund of customs duty paid on inputs when buying capital goods or construction materials from local manufacturing industries” (Interview 20170613100147).

These sector-specific incentives motivated the Chinese and evidence assessed from the financial contract of the projects stated that:

“the Ethiopian government is exempting from the customs duty; value-added tax, additional tax and withholding tax of the imported equipment, materials and construction equipment” (Volume 3 Section H Financial Scheme 2009, p2).

As confirmed by a MOFEC official involved in the financial negotiations that the two wind farms were “government projects and the commitment as part of the loan negotiations was that we as the Ethiopian government will allow import of important inputs from China on duty-free arrangement” (Interview 20170630164633).

Besides the sector-specific incentives, Ethiopia’s macroeconomic indicators were also identified as a motivation for Chinese enterprises’ involvement in Adama wind farms. From 2000 to 2013, Ethiopia experienced a 9.5% growth rate, second only to Angola at 11% and above the sub-Saharan Africa average of 5.2%. Regardless of the growth indicators, Ease of
Doing Business remained low, implying a challenging environment to do business. Publicly available data shows that Ethiopia was ranked 159 out 185 in 2016 and 161 out of 190 in 2017 in terms of Ease of Doing Business (World Bank, 2018a; World Economic Forum, 2016, 2018). While the business environment has improved since 2010, Ethiopia fares not too bad as compared to other African countries (see table 5.6). Within the confines of the investment climate, access to low-cost land and labour also motivated the Chinese enterprises’ involvement in the two wind farms. As highlighted by a high-level official at EIC:

“We have access to land with low cost. When you check the costs of land provided to investors, it is very low cost. We also have strong public institutions with track record of effective and timeous project execution capacities. We are less corrupt. There is no tolerance to corruption. The Global Competitiveness Report of 2016/17 ranked us 34th for impartial public decision making, well above most of our regional peers such as Kenya (92nd) and South Africa (115th)” (Interview 20170613100147).

Nonetheless a closer look at the doing business statistics, the investment climate leaves much to be desired (see table 5.6) and may not provide adequate justification for the Chinese enterprises’ identification of the favourable environment as a motivation for their involvement in Adama wind farms.

Table 5.6 Competitiveness indicators for selected countries 2016/17

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Ethiopia</th>
<th>Kenya</th>
<th>Nigeria</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversion of public funds</td>
<td>49/138</td>
<td>89/138</td>
<td>127/138</td>
<td>96/138</td>
</tr>
<tr>
<td>Irregular payments and bribes</td>
<td>93/138</td>
<td>113/138</td>
<td>129/138</td>
<td>53/138</td>
</tr>
<tr>
<td>Favouritism in decisions of govt. officials</td>
<td>34/138</td>
<td>92/138</td>
<td>127/138</td>
<td>115/138</td>
</tr>
<tr>
<td>Business cost of crime and violence</td>
<td>91/138</td>
<td>128/138</td>
<td>121/138</td>
<td>133/138</td>
</tr>
<tr>
<td>Reliability of police services</td>
<td>92/138</td>
<td>93/138</td>
<td>121/138</td>
<td>115/138</td>
</tr>
<tr>
<td>Strength of investor protection</td>
<td>129/138</td>
<td>96/138</td>
<td>20/138</td>
<td>14/138</td>
</tr>
<tr>
<td>Country credit rating</td>
<td>123/138</td>
<td>94/138</td>
<td>88/138</td>
<td>63/138</td>
</tr>
</tbody>
</table>


5.4.3 Geopolitical and geo-economic considerations

The financing and development of Adama wind farms relates to broader geopolitical and geo-economic calculations by the Chinese government and enterprises. I conceptualise geopolitics as the “role and influence of territorial location, natural resource endowment and political organisation of space on a country’s practice of foreign policy” (Blanchard & Flint, 2017, p. 233). In the context of Chinese geopolitics, Power and Mohan (2010, p. 462) argued for “a political economy approach that ties together material interests with a deconstruction of the
discursive […] ways by which Chinese capitalism internationalises”. It relates to the Chinese state and non-state actors’ broader geostrategy pursued to fulfil interests. Geo-economics relates to the application of economic means of power by actors to achieve geo-strategic objectives (Scholvin & Wigell, 2018). Specifically, it is “a set of transformative projects that are the product of actions that require representations and narratives to justify and explain those actions to limit dissent and gain consensus across a variety of audiences” (Blanchard & Flint, 2017, p. 232). It is geographically bound, politically as well as economically motivated. MOFCOM, C-MFA, C-EXIM Bank and Chinese state council involvement in the Adama wind farms serves the Chinese government’s geopolitical calculations. Chinese government official in the African Department of the Chinese Ministry of Foreign Affairs (C-MFA), sees Ethiopia as a strategic partner (Interview 20170621175736). He argues that China is helping Ethiopia develop.

The idea of China helping Ethiopia as mentioned by the Chinese official depicts the longer term geopolitical and geo-economic strategy of promoting Chinese influence in the Horn of Africa. It also contributes to the discursive narratives that China want to help Africa develop. Such discourses contribute to China weakening the influence of the West in the region. As noted by C-EXIM Bank official:

“China is serious about what it is going to do in Africa. It is not going to be a short-lived or provisional thing. It is a long term. We think China’s future is in Africa. Africa is the future; we should capitalise on this wonderful outlook. China will put special resources to work with Africa (Presentation 20192105).

Ethiopia falls within the Chinese geopolitical strategy (Davies, Edinger, Tay, & Naidu, 2008). As noted by an official from EFRSSI:

“Ethiopia is not just the second largest country by population in Africa; it is strategically positioned closer to the Middle East, Europe and Africa. The population size offers a huge market opportunity for the Chinese. So Ethiopia is the centre of the gravity, it is the exemplary case for industrial parks, the light railway, the Addis Djibouti railways. This may be the reason why Chinese are prioritising to invest in Ethiopia” (Interview 20170712135318).

The Chinese involvement in the two wind farms, and other mega infrastructure and industrial park projects in Ethiopia collectively contributes to a stronger projection of the Chinese geopolitical and geo-economic aspirations. An official from EFRSSI carefully pointed out that the Chinese financed, invested and built “the African Union building, Adama expressway, Eastern Industrial Zone, Ring road, Addis-Djibouti railway, Addis Light Rail Transit and many other projects to strategically show other African countries, African leaders” (Interview
the Chinese technological prowess and construction capabilities. Addis
Ababa is the diplomatic city of the continent. It is the headquarters of AUC, United Nations
Economic Commission for Africa (UNECA), several international non-governmental
organisations and diplomatic missions. Because of this, Ethiopia commands a measurable
influence in the continent and bargaining power which may be of advantage for the Chinese
government in the UN systems and voting processes (see Dreher, Fuchs, Parks, Strange, &
Tierney, 2018, p. 18). According to a Western country embassy official in Addis Ababa:

“China’s interest in Ethiopia is largely because they think is one of the most dependable
countries in Africa in terms of its security, stability, population by population I mean the
market and the most important, ideological similarity. China sees things in 20, 30 years,
they see a bright future for Ethiopia, and they want to be part of it. Also, Ethiopia is
among handful countries in Africa which does not just accept anything from Western
values and partly from Eastern values but manages to have a very important and good
relations with both of them” (Interview 20170724143353).

A professor at AAU echoes the above argument:

“Ethiopia strategic location is very important, particularly in the horn of Africa and the
Ethiopia-Djibouti connections. China’s interest in Djibouti is very real, especially in its
grand military strategy” (Interview 20170802142852).

For HydroChina, their involvement in Adama wind farms served geopolitical and geo-
economic objectives for the Chinese government. The two wind farms are the first Chinese
projects in Africa. The projects were used as demonstration projects:

“In 2015 at the FOCAC summit as a model for new Africa-China cooperation. All the
African leaders were told about this project. It was used as a benchmark as a form of
cooperation between Africa and China” (Interview 20171229144752).

The modelling of future engagement between Africa and China based on Adama wind farms
as shown in the quotation above speaks volume about China’s long term geopolitical and geo-
economics in the continent. Such narratives offer possibilities for Africa to align with China for
better development partnership than with the traditional Western powers.

5.4.3 A learning motive
Africa provides an important laboratory for Chinese policy formulation and business
internationalisation. The involvement of the Chinese in the two wind farms was thus motivated
by the need to learn and gain experience in wind energy project delivery in Africa. As noted
by Wei Chen (cited in Wong, 2018, p. 1) who was involved in the development of two Longyuan
Mulilo De Aar wind farms in Northern Cape, South Africa:
“The projects are basically testing water for us; we are gaining experience, training a team and figuring out whether it is a good market. Because of lowering of purchasing price, what we really need to have companies with rich experiences”.

The quote above speaks to Chinese companies involved in South Africa’s wind energy sector. However, this is a general feeling by Chinese companies who were involved in Adama wind farms. As such, a professor at AAU notes that the Chinese “knowledge about Africa is very much limited, they want to experiment; they want to give their companies jobs in Africa” (Interview 20170802154843). For HydroChina, they “did not know some of the things, like the policy” (Interview 20171229144752) and preferred to learn from practice through experimentation (Kirkegaard, 2017; Korsnes, 2014). This learning aspiration come from the Chinese domestic experiences of developing wind energy industry. This suggests a ‘Chinese way’ of doing things (Kirkegaard, 2017, p. 28). That said, Chinese involvement in the Adama wind farms “help them transform from technology supplier to EPC contractors, gaining invaluable experience from carrying out these projects” (Chen, 2018). Because of HydroChina’s unfamiliarity with international standards, Adama wind farms were used as a laboratory.

5.5 Determinants for Ethiopian government’s contracting of the Chinese enterprises to develop Adama wind farms
What motivates African governments to award infrastructure development tenders to the Chinese remains an academically and empirically underexplored aspect in Africa-China relations. In the context of Adama wind farms, which economic and political factors influenced the Ethiopian government to contract the Chinese enterprises? In this section, I argue that there was a bricolage of economic and political factors that contributed to the Ethiopian government awarding the contract to the Chinese (see figure 5.1).

5.5.1 Economic explanations
In 2004 the first comprehensive solar and wind resource assessment report was completed, but it was difficult to find finance to develop the wind farms on the identified sites. According to MOWIE official, traditional donor countries were not ready to experiment with the new market because of risks and uncertainties (Interview 20171011140053). By then, no regulatory and policy framework existed focusing on the wind energy sector in Ethiopia (Gordon, 2018). The Ethiopia-China Development Cooperation Directorate in MOFEC then approached the Chinese institutions for the potential financing of a cluster of infrastructures. After a series of negotiations between the Ethiopian government, HydroChina and CGCOC, C-EXIM Bank agreed to finance the projects using an EPC plus financing scheme. Based on assessments conducted by the technical experts drawn from a multi-stakeholder commission composed of MOWIE, EEPCo (before split) MOFEC, MEFCC (then Environmental Protection Agency), Ministry of Labour, EIC, Ministry of Trade, and regional government representatives,
the Ethiopian government used the following economic reasons to award the contract to the Chinese: financial resource availability, quick capital disbursement, and acceptable total project costs (Interview 201817015552244). I discuss these reasons below.

First, the financial resource availability was a significant determinant which led the Ethiopian government to award the contract to HydroChina-CGCOC-JV. According to interviews conducted with EEP officials involved in the two projects’ ‘direct negotiation’ processes, the primary prerequisite for HydroChina and CGCOC as the contractor to be awarded the contract was the financial clause. The clause stipulated that the contractor was required by the Ethiopian government to provide a majority share of the project cost either from their own company or through their financing network and arrangements. As explained by an official from the EEP “as part of our shortlisting, we wanted the contractor who would come with the loans, for which we would negotiate the financial terms and financing model before awarding the contract” (Interview 20170623163225113). However, it is critical to mention that the financing pre-requisite set by the Ethiopian government was not exclusive to the Chinese contractors only, but also any potential contractors, whether from Europe, America, Asia or Africa. This was the case in the French developed Ashegoda wind farm. The decision to award the contract to the Chinese enterprises was contingent on the fulfilment of this financial pre-requisite. C-EXIM Bank agreed to finance the projects but also set its pre-conditions. As noted by a government official from MOWIE:

“The finance was closed, tied from the Chinese EXIM Bank. That means it has its own qualifications. The qualification means it is only the Chinese companies that can participate in the development of the projects” (Interview 20171011140053).

The fact that the Ethiopian government used the financing clause among the French and the Chinese shows a consistent decision-making pattern applied across different contexts and time. What one reads from this is the operationalisation of agency. Also, it shows that regardless of Ethiopia being in a less privileged position, it still made demands. Obviously, the Ethiopian government did not have enough money, the technology or the skills to develop the two projects. It also portrays that negotiations are not always conditioned by power asymmetries, but by the ability to carefully plan, strategize and negotiate.

Quick capital disbursement was the second factor why the Ethiopian government contracted the Chinese. Mega infrastructure projects are often used as campaign projects to win votes by African politicians towards elections. Marx (2017, p. 2) research shows that “voters reward

112 Direct tendering process discussed in detail in chapter 6.
113 Three respondents participated in this interview
incumbent politicians for completing projects in their districts and that governments respond to these incentives by expediting project completion before elections”. Examples of these projects are mega infrastructures and social services, which provide directly observable benefits to voters. This comes from the fact that majority of voters in Africa have “limited information to assess the performance of elected officials, beyond tangible” infrastructure and social service outputs they can observe in their constituency (Marx, 2017, p. 3). Accordingly, C-EXIM Bank has often been associated with quick capital disbursement capabilities compared to WB, IMF and traditional donor countries and agencies. As noted by an African Development Bank official interviewed for this study, depending on the size of the project and volume of the financing, traditional development banks take on average 4 to 7 years or more to disburse capital (Interview 20170712152354). This is because of very long and winding negotiations which allow the development banks to be cautious, avoiding unsound financial decision-making.

However, this raises questions about whether quick capital disbursement correlates with incautious decision making. Because the Chinese are quick in disbursing capital, does that mean their lending patterns are not risk averse? In the context of Adama 1 “the project taken up to 2 years from Memorandum of Understanding for Co-Financing contract signing in July 2009 to notification of the Effectiveness of Loan Agreement in May 2011” (Interview 20171011140053; 20170714094901) and “about 9 months for Adama 2 from contract signing in October 2012 to project start in July 2013” (Interview 20170623163225). The length of time for Adama 1 is attributed to the time spent in financial negotiations and not capital disbursement. Officials from EEP claimed Adama 2 ranks first in terms of quick capital disbursement for infrastructure financing in Ethiopia.

Evidence presented mainly in the context of Adama 1, suggests that the two years spent by the Chinese before financial closure was attributed to risk sensitisation since it was a new market. Such risks include “risks of default or insolvency of the buyers or cover against the risks of non-payment by buyers due to currency issues, political unrest and other factors” (Massa, 2011, p. 4). To mitigate against such risks, China Export and Credit Insurance Corporation extend credit insurance to Chinese contractors and subcontractors. This would also imply C-EXIM Bank structuring of the loans in such a way that “there is a revenue stream that will be able to support the debt repayment” (Corkin, 2013, p. 89). C-EXIM Bank’s risk sensitisation is similar to Western enterprises where profit maximisation is a priority. As highlighted by a respondent from MOWIE, the delay was “because it was a new sector for the majority of Chinese enterprises and us as well” (Interview 20171011140053). An official from EEP further explained that:
“Although we had gained experiences from Ashegoda, for the Chinese, in particular, EXIM Bank, it took them about 24 months before the finance was approved. They had to be diligent to ensure that all potential risks and uncertainties were hedged for. So unlike what people normally say that the Chinese do not weigh options, or do not assess the risks and uncertainties in their financing decision making, that was not the case for Adama 1. For Adama 2, I think they had learnt their lessons. The groundwork had been done” (Interview 20170714094901).

Consistent with the Ethiopian government-set target in the GTP, quick capital disbursement was a contributing factor why the Chinese were awarded the contract.

Third, the Chinese were identified as not cheap but offering an ‘acceptable’ total project cost. According to Kaplinsky and Morris (2009, p. 561) the costs of Chinese financed and developed large infrastructure projects are “20–30 per cent lower than those of Northern, South African and Brazilian competitors”. The total project cost for Adama 1 was $117.9945 million in which the unit power cost was $2314/Kw; investment was $117 million plus $0.9945 million interest incurred during construction (EEP, 2017b). For Adama 2, the total project cost was $345 million in which the unit power cost was $2254.9/Kw (Interview 20170623163225). While the total project cost was seen to be cheaper compared to Western prices, Ethiopian officials from different government portfolios disagree. On one hand, the top level management of MOWIE claims that the Chinese were cheaper in comparison to Western offers (Interview 20170608141010). On the other hand, low and middle-level management from EEP and even some from MOWIE claim the Chinese were a “bit expensive” (Interview 20170609111018; 20170531143837; 20170714094901).

To triangulate these different perspectives, a CGCOC employee claimed that Adama 1 unit power cost and construction cost was lower than Ashegoda (Interview 20170801090344). The Chinese were comparatively cheaper on the construction cost (Interview 20170731110952). That said, according to an EEP official the Chinese deal was attractive as “it provided high repayment period of about 13 years, 7 years grace period, and 2% interest rate” (Interview 20180120178596). Similarly, a TPLF-EPRDF party official claims that the Chinese offered a “very good technical presentation at the same time their price was acceptable (Interview 20170512172020). In contrast, although the financial offer from the Chinese was lucrative, the unit power cost was consistent with the industry price at that time. An EEP official argued that, “contrary to what many people think that Chinese technology is cheaper, it is not true. At the market rate of that time, they were expensive” (Interview 20180120178596). For Adama 2 project consultancy team member from MU:
“Adama 1 and Adama 2 have the same pricing value as per the Europeans or Americans. So, in wind energy technology prices are similar. Unit cost is similar. What may constitute the difference is the site specifications and complications. Otherwise, everything is similar, or even be surprised that the Chinese are expensive, as again the bidding would be closed door” (Interview 20170811121252).

The two extracts above point to the uniformity in terms of international unit power cost. It also suggests that because of the closed-door tendering system, there is room for inflation of costs. Meservey argues that closed door tendering system:

“gives Chinese companies an unfair advantage over competitors, and—since a fair bidding process is usually the best way to secure the most cost-efficient delivery of a project—robs Africans of receiving maximum return on the investment of public money paying for Chinese-built projects” (Meservey, 2018, p. 3).

In the context of Adama wind farms, I did not find any evidence to corroborate such claims. However, the closed-door tendering system tends to create avenues for corruption and project execution inefficiencies since the processes are not transparent and not open to public scrutiny.

5.5.2 Political explanations
The Ethiopian government made several political calculations before awarding the contract to the Chinese. First, the Chinese have a non-interference policy in the political affairs of the host country. According to a professor at AAU, unlike the Western agencies and countries, the Chinese do not advocate and prescribe economic structural adjustments (trade and financial liberalisation, privatisation of state entities, devaluation of the national currency) when doing business with Ethiopia (Interview 20170524162135). The Chinese do not advocate for the observance of the rule of law, human rights and the democratic process as preconditions for loan provision; something associated with traditional financial institutions and Western countries’ agencies. Hackenesch (2015) argues that Ethiopia is very reluctant to give in to the governance reform agenda of the European Union. During the 2017 China-Africa Think Tank Forum I attended at AUC in Addis Ababa, Arkebe Oqubay, a special advisor to the Ethiopian Prime Minister notes that:

“Ethiopia should not be treated to get loans or assistance by applying the policy recommended by international financial institutions or the Washington Consensus that has brought a disaster to this continent in the 1980s and 1990s. Chinese leaders have

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been good partners, coming up with financial resources without putting any pre-conditionality” (Presentation 20170621111431).

The extract above suggests that the Ethiopian government resents the use of conditionalities as determinants for development finance provision. The government’s experiences of negotiating with WB and IMF in the 1990s is often used as a reference point. A top-level TPLF-EPRDF official underlines that “we had very difficult negotiations with IMF and the WB. They were pushing for financial liberalisation and telling us to privatise the telecom and power” (Interview 20170512172020). EPRDF sees privatisation of the telecom, banking and power sector as a no-go area. The Chinese, at least from the EPRDF position, do not precondition assistance. An official from the E-MFA underscores that the Chinese were given the contract to finance and develop the two projects because they “have no hidden agenda or mould political make-up other than business as compared to other donors or partners” (Interview 20171027105200). This explains why officials from MOWIE “prefer working with the Chinese” (Interview 20170609111018).

However, this non-conditionality discourse requires qualification in as far as Chinese interests are concerned. The Chinese use three parameters to condition their assistance: (i) observance of the One China policy, (ii) subcontracting of Chinese enterprises and (iii) use of Chinese technology or inputs (Interview 20170724143353). Is it misplaced, therefore to suggest that the Chinese condition development finance? One thing I have observed is the failure of people to understand the meaning of preferential export buyer’s credit (a form of a concessional loan) which the Chinese use as a lending facility. It is defined as “credit provided to foreign borrowers to finance their import of Chinese goods” (Massa, 2011, p. 6). This implies the usage of Chinese contractors and inputs on a project largely funded by the Chinese, which is a form of clandestine conditionality. This is not unique to the Chinese, as an EPRDF official observed “even European countries, everybody does that” (Interview 20170512172020). As such, China follows international practices; it is up to the host government to ensure they structure the deals in ways that retain value and control.

Second, HydroChina and CGCOC were given the contract to develop Adama wind farms because of the quick project completion rate combined with a good track record of previous infrastructure project delivery. This attribute links with the quick capital disbursement point raised in the previous section. HydroChina and CGCOC have been involved in many infrastructure projects in Ethiopia since the early 2000s and their experience of the Ethiopian

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115 Part of the financial deal for the Ashegoda wind farm was that European countries were to supply the technology to be deployed and even the contractor Vergnet which is from France. That’s why Ecotecnia 74 (Alstom Power) and Vergnet GEV HP 1000/62 turbines were used which were manufactured in Spain and France respectively.
market spans over ten years. For example, HydroChina was involved in Tekeze, Gibe 3, and Gibe 4 dams (Hwang, Brautigam, & Wang, 2015). Their performance has been remarkable. According to the *Ethiopian Reporter* journalist CGCOC\(^{116}\) has been involved in several projects including the Kombolcha-Gundewein road in Amhara, Cheko-Yergachefe road along the Addis-Nairobi corridor, and Eastern Industrial Zone construction (Interview 20170829094453). The journalist further claims that CGCOC has been able to quickly and with quality execute the projects to the satisfaction of the Ethiopian government (Interview 20170829094453). This was confirmed by a HydroChina employee:

“Ethiopians don’t like the characters from other countries. There was another project Ashegoda which was constructed by the French, by that time Adama 1 was constructed very quickly and came out very nice. Also Adama 2 was finished on time. I think the speed element. The Chinese had been involved in other projects, the expressway, the Addis-Djibouti and the Addis Ababa Light Rail Transit. They had good reputation of delivering the projects in time” (Interview 20171229144752).

Good working relations between Ethiopians and the Chinese create pathway lock-ins. Currently, the Ethiopians are now contracting Chinese enterprises to construct projects funded by other financiers such as AfDB as is the case on Ethiopia-Kenya high voltage transmission line (Interview 20170712152354). A comparison of time spent constructing French developed Ashegoda and Chinese developed Adama wind farms suggests something else (table 5.7). Ashegoda was set for completion by 2011 but because of logistical (transportation, renegotiation of the contract and turbine model change) issues, was delayed till 2013 (Interview 20171011140053). Adama 2, which was bigger and supposedly had more logistical nightmares, was completed in 24 months, making the Chinese to be seen as practical, hardworking and efficient in time management by the Ethiopian government.

**Table 5. 7 Adama vs Ashegoda wind farms project execution time frames**

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Adama 1</th>
<th>Adama 2</th>
<th>Ashegoda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>51MW</td>
<td>153MW</td>
<td>120MW</td>
</tr>
<tr>
<td>Project start</td>
<td>2011</td>
<td>2012</td>
<td>2009</td>
</tr>
<tr>
<td>Commission</td>
<td>2012</td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>Project execution time</td>
<td>12 months</td>
<td>24 months</td>
<td>42 months</td>
</tr>
</tbody>
</table>

Source: Fieldwork data

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\(^{116}\) The company is also listed as a Grade 1 contractor with effect from 2 March 2008 by the Ethiopian Ministry of Urban Development, Housing and Construction.
Third, the global financial and economic crisis and the shifting geographies of power is creating a global division of labour in terms of infrastructure financing in Africa. Traditional donors have adopted austerity measures, which include massive cuts in aid and infrastructure financing for developing countries, creating a financing gap. African countries have set ambitious, hard infrastructure development targets to address structural transformation challenges. Fortunately, China has emerged as a significant and reliable development finance provider to Africa. As alluded to by a lecturer at EFRSSI:

“China funds hard infrastructure while the traditional donors target soft infrastructure. But this does not only end there, Western donors are pre-occupied on democracy, while the Chinese are on infrastructure, of course with an exception of the Obama initiative, the Power Africa” (Interview 20170712135318).

Western agencies and development banks target soft infrastructure, private sector development, and capacity building, which are vital for Africa’s sustainable development (Interview 20170830072517).

Fourth, Ethiopia and China share similar political and economic institutions in terms of an authoritarian developmental state. The ideology-driven developmental state sees political elites committed to economic development while curtailing civil and political liberties. This developmental orientation ensures that the state’s survival is substantially dependent on increasing and promoting high rates of accumulation and industrialisation (Gebremariam & Bayu, 2017). These tenets appear to be similar to China as explained by a lecturer at the Renmin University:

“Ethiopia certainly under Meles and also under Hailemariam has looked to China using China as a model for development practice, also linking interests in the political makeup of China in the way in which the country can economically liberalise but not politically liberalise. So, Ethiopia relations with China is among the strongest in the continent because it is one of the few countries, which has outrightly said that China is a model” (Interview 20170526121908).

This political affinity between Ethiopia and China means that deal brokerage starts at the party to party level before even reaching the government level. According to a Xinhua News Agency reporter, deals are reached at the party to party level. The stronger the party to party relations, the higher the chances of striking deals at the government level (Interview 20170830072517). As such, the closer relations between EPRDF and Communist Party of China creates collective identity, which generates a perception of like-mindedness and trust (Lejeune, 2015). Accordingly, a top-level Chinese official at the Africa Department of C-MFA notes that Ethiopia
and China “treat each other as equals, we have high level mutual political trust. Trust is very important in business. That is what we share in common” (Interview 20170621175736).

A final reason why the Ethiopian government awarded the contract to the Chinese was the need to learn and compare project execution capabilities between the Chinese and the Western enterprises. Wind energy remains a new sector in Ethiopia, and the government wanted to gain experience and acquire new technology. As such, all the three wind farms were developed on an EPC scheme in which Ashegoda was developed by a French firm, Adama 1 and Adama 2 by Chinese contractors (Interview 20171011140053). This further allowed the government to diversify contractors and areas of cooperation with the Chinese and Western enterprises (Interview 20170819151844). Therefore, wind was a new avenue to diversify the areas of cooperation.

**Figure 5.1 A bricolage of economic and political factors**

5.6 Chapter summary

This chapter has presented a description and analysis of the drivers and motivations of the Ethiopian and Chinese actors financing and developing of Adama wind farms. The drivers for the Ethiopian government were a combination of three factors, namely wind technology maturity, availability of ideal and harvestable wind resources, and the global push towards renewable energy. From the Chinese side, the primary drivers were a combination of the ‘Going Abroad strategy’, seeking new markets, and climate change and reputation considerations. The chapter also presented and analysed the motivations for both Ethiopians and Chinese involvement in the two wind farms. While there is a plethora of motivations for the Ethiopian government, the need to diversify the electricity sector was identified as the most significant. For the Chinese, the request made by the Ethiopian government was the deciding motivation for their involvement in the two projects. However, geopolitical and geo-economic interests combined with Ethiopia's investment climate and sector-specific incentives also motivated the Chinese involvement in the two projects.

The chapter analysed the economic and political factors which influenced the Ethiopian government to award the contract the Chinese enterprises. A finely grained analysis of the reasons why the Ethiopian government awarded the contract to the Chinese suggests that
political determinants were not significant compared to economic factors. As argued by one of the Ethiopian government officials interviewed in this study:

“The government invited the Chinese simply because of the financing aspect. Any developer that is prepared to finance the project can undertake such work. Look at Ashegoda; the French developed that one because they came with their own finance for the project” (Interview 20170811121252).

This finding challenges the assertion that political factors greatly influence Chinese infrastructure financing and development decisions in Africa. In the context of the Adama wind farms, it is nonetheless vital to emphasise that political factors have an enabling effect but not necessarily a significant influence. In the next chapter, I unpack the engagement and negotiation processes between the Ethiopians and the Chinese in the two wind farms.
CHAPTER SIX: ENGAGEMENT MODALITIES AND NEGOTIATION PROCESSES BETWEEN AND AMONG ETHIOPIAN AND CHINESE ACTORS IN ADAMA WIND FARMS

“There is this big change globally [...] if we don’t take care, we will be taken for a ride and dropped when the time comes. If we don’t use this window of opportunity to transform our economies, then it will be lost” Meles Zenawi\textsuperscript{117}.

6.0 Introduction
The quotation above shows how Ethiopia, under Meles Zenawi, engaged with foreign actors with the emphasis on Ethiopia being in the driver’s seat (Staden, Alden, & Wu, 2018) or in charge (Brautigam, 2011). Ethiopia remains an aid-dependent country (Feyissa, 2011) or foreign-funded revolutionary democracy (Gadzala, 2015b) where donor policies have made no significant impact “in terms of influencing Ethiopian policies” (Borchgrevink, 2008, p. 195). This could be explained by Ethiopia’s negotiating capital (Whitfield & Fraser, 2010), which relates to the capacity of “political leadership to make use of enabling socio-economic and political structures” (Feyissa, 2011, p. 789). This chapter analyses modalities of engagement and processes of negotiations between Ethiopian and Chinese actors in the financing and developing of Adama wind farms. To draw a nuanced understanding of the interactions, several interrelated questions are asked: in the two wind farms, who initiated or brokered the engagements and at what stage or organisational level? When did the negotiations begin and how long did they take? What was negotiated on, and what instruments were used to achieve objectives? The chapter presents findings from document analysis, unstructured and semi-structured interviews conducted with Ethiopian federal and regional government officials, public utilities, politicians and farmers where the wind farms are located. From the Chinese side, informants were drawn from the Chinese government officials, state and semi-state-owned enterprises involved in the Adama wind farms.

I argue that an examination of modalities of engagement and negotiation processes through these multiple layers of stakeholders allows one to unravel the “field of African agency” (Brown, 2012, p. 1891). The Adama wind farm cases show that modalities of engagement and negotiation processes are not always conditioned by power asymmetries (Soulé-Kohndou, 2019a) but by the social and material context in which these interactions occur (Phillips, 2018). The case studies show that the Ethiopian actors’ decision-making when interacting with the Chinese was carefully and strategically planned to ensure there was maximum retention of control in the engagements and at the same time, ensuring their Chinese counterparts were happy. The chapter is divided into four sections. The first section traces the modalities of

engagement. The second section unpacks the question of who brokered the deals. Section three responds to the question of who negotiates followed by section four that examines the details of the negotiations. The last section concludes and draws empirical insights to help understand Ethiopian agency when interacting with the Chinese.

6.1 A framework for tracing the engagement at the negotiation tables

Negotiation tables are the official or formalised platforms where actors meet to deliberate or negotiate on mutual interests. The negotiation tables vary from sector to sector and range from “diplomatic conferences involving heads of states, through donor consultations between international financial institutions and local NGOs, to meetings by customary chiefs under the village tree” (Hagmann & Peclard, 2010, p. 551). In the case of Adama wind farms, engagements occurred at several negotiation tables. Engagements between Ethiopian and Chinese stakeholders are traced from the FOCAC to the project execution level/platform. At these negotiation tables, various instruments of power were used by Ethiopian actors to influence the way they interacted with the Chinese actors. As depicted in table 6.1, the first level of engagement initiation is the multilateral platform where African and Chinese actors meet to deliberate on policy and the direction of their relations. African governments in this context use their domestic regulatory, organisational and political capital—what Mann (1984) terms despotic\(^{118}\) and infrastructural power\(^{119}\) as instruments to influence their relations with China. The commonality of interests and themes on the areas of engagement such as win-win friendship, cooperation, shared histories and experience of underdevelopment are used as discursive forms of power to shape and condition the informal and formal engagement (Hagmann & Peclard, 2010).

Table 6.1 Adama wind farms engagement at the negotiation tables

<table>
<thead>
<tr>
<th>Actor</th>
<th>Negotiation table</th>
<th>Engagement modality</th>
<th>Resources</th>
<th>Repertoires</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>President / Prime Minister/ Minister</td>
<td>Multilateral level (e.g. FOCAC)</td>
<td>Informal &amp; formal</td>
<td>Sovereignty; regulatory, organisational &amp; political capital</td>
<td>Commonality of interests &amp; themes (win-win friendship; solidarity)</td>
<td>Agreement; disagreement; declarations &amp; action plans</td>
</tr>
<tr>
<td>President/ Prime Minister/ Minister of Foreign Affairs/ Ambassador/ Consular</td>
<td>MFA/ Embassy/ Consulate level</td>
<td>Informal &amp; formal</td>
<td>Sovereignty; regulatory, organisational, political &amp; informational capital</td>
<td>Commonality of interests &amp; themes (win-win friendship; mutual cooperation; anti-Western rhetoric)</td>
<td>Agreement; disagreement; economic &amp; business diplomacy</td>
</tr>
</tbody>
</table>

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118 The range of actions that the elite is empowered to undertake without routine

119 The ability to execute them
While the initiation of engagements between Ethiopian and Chinese actors in the context of the Adama wind farms can be traced back to the 2003 Addis Ababa FOCAC Conference, 2006 Beijing FOCAC Summit and the 2009 Sharm el-Sheikh FOCAC Conference, no significant evidence suggests that any negotiations occurred here (Interview 20170630164633). As highlighted by an official from the MOFEC, FOCAC as a multilateral platform is there for declarations and action plans for the next three years after the meeting and not for specific negotiations. He argues that it is merely a talking shop and nothing concrete and material is discussed. Similarly, engagement initiation at the continental or regional level was not evident in the case of the Adama wind farms. As explained by an official working in the Partnership and Collaborations Division of the AUC who happens to be a former Ethiopian government official for the then Ministry of Finance and Economic Development under the Asia Desk:

“The AU is highly limited when it comes to a continental position on engaging with China. Although we are responsible at preparing policy documents and identification
of areas of cooperation for member states, it is up to the member state to pursue cooperation on its own. Of course, we have a FOCAC Unit here, but it is not very powerful enough to decide the pathway for member states because of the sovereignty clause, which affects total jurisdiction on member states. Again, China always refuse to allocate the money to AU treasury; rather, they prefer direct engagement at a bilateral level with the partner country as implementation is done at a bilateral level.” (Interview 20170616002456).

The absence or silence of the AUC in the context of Ethiopia-China cooperation in the development of the Adama wind farms is not surprising. The AUC does not have a binding and sovereign mandate to micro-manage Ethiopia’s foreign policy. Similarly, China prefers to engage African countries at a bilateral level since the implementation of the projects is done at a bilateral level. While the idea of leaving member states to set their own engagement priorities with the Chinese demonstrates what some may consider as a weakness of the AUC (Staden et al., 2018), it is an expression of strategic passivity of agency at the continental level (Procopio, 2019). This suggests that “inter-state brokerage is the pre-eminent mode of engagement” (Mohan, 2015, p. 6) between Ethiopia and China in the context of Adama wind farms.

The MFA level is the second negotiation table where engagements begin. This platform includes the head of state (President) or government (Prime Minister), Minister of Foreign Affairs, Ambassador and Consul who act on behalf of the Ethiopian state to attract investments. Ethiopian actors here conduct economic and business diplomacy which is essentially state-sponsored and sanctioned marketing by the President, Prime Minister, Minister of Foreign Affairs, Embassies and Consulates. As is the case with the multilateral platform; these actors use regulatory, organisational, political and informational capital and commonality of interests as instruments to influence the engagements. Engagements at this stage begin at an informal and then move to a formal mode.

The third platform involves MOWIE, where formal engagements begin. After the conduct of economic and business diplomacy by the MFA and the presidential branch of the state, MOWIE will formalise the engagement by signing an agreement of cooperation in the form of a Memorandum of Agreement or Understanding (MOA/U) which would stipulate the guidelines of the cooperation. The process within which the MOU is reached in this context, should be seen as a negotiation zone, a space where political decisions and agendas are set (Hagmann & Peclard, 2010). The actors here bargain, aided by the sector-specific regulatory capital, institutional capital, and informational capital as resources to influence the outcomes. Win-win friendship, climate change and clean energy development repertoires are used to influence
engagement outcomes. Agreements here are reached out of strategic passivity and cooperation.

Financially related engagements between MOFEC and Chinese financial institutions occur at the fourth platform, as shown in table 6.1. At this stage, Ethiopian implementing institutions are led by the director of Ethiopia-China Development Cooperation to negotiate, bargain, resist, cooperate and at times passively reach an agreement with the Chinese financial institutions. Passivity does not necessarily imply that decisions are reached without contesting pre-set conditions. It shows the strategic calculations of the actors where priority is on achieving the set goals. This is the most challenging stage of the process. It may, at times, take longer if the area of engagement is less familiar to both Ethiopian and Chinese actors. As shown in table 6.1, Ethiopian actors make use of their financial negotiations’ coordination capital, and political capital in tandem with the sovereign guarantor (in the case of a concessional loan facility) as resources to influence the outcomes. Likewise, repertoires such as commonality of interests and themes of engagement help condition the financing arrangement, price, interest rate, maturity, and grace period issues. This often leads to a low-cost financing scheme arrangement.

Project implementation and management aspects constitute the final level, where ideas are translated to practice. At this stage, both state and non-state actors battle out for influence and domination and employ several tactical resources and repertoires as instruments of power to promote their own interests, ideas, values and preferences. Bargaining, negotiations, resistance, cooperation, passivity and contestation becomes the modus operandi. Because of the practical challenges and complexity of implementing mega-infrastructure projects, the Ethiopian state strategically selected state and non-state actors who were to participate in the process (Jessop, 2010). In the case of Adama wind farms, the stakeholders involved at this stage were EEP as the employer, HydroChina—CGCOC-JV as the contractor, Oromia regional government as the political leadership of the region with ultimate control over access to land. Adama City, Woreda and Kebele administrations were also involved as the local government and political administrators as well as farmers and community members as custodians of the land—where the projects were to be sited. Having provided the framework for analysis, in the next sections, I operationalise the framework.

6.2 Who brokered the engagements?
The question of who brokered the Adama wind farm deals is important because it contributes to answering the African agency dimension, viewed as the ability to initiate the engagement. Initiation of deals, as explained in the previous section, happens both informally and formally. At an informal level, there are opposing narratives. Some of the Ethiopian government officials claim they approached the Chinese first. For example, a high-level politician from
TPLF/EPRDF and former Ethiopian ambassador to China between 1999 and 2004 claims that “in those projects, we first approach the Chinese government for loans” (Interview 20170512172020). This idea of Ethiopia approaching the Chinese first is supported by an official from China-Africa Dialogue platform of the Oxfam International based in Addis Ababa:

“China will pledge for African countries that they will give this so and so amount in the next three years. It is up to the respective government to go and negotiate with China, even if the thing is not pledged at FOCAC” (Interview 20170615113129).

According to The Reporter journalist, the deals were brokered by Meles Zenawi. He argues that it was an initiative of the late Prime Minister after co-hosting and organising FOCAC Summit in Addis Ababa in 2003 and also after co-hosting FOCAC in Beijing in 2006. Engagements about the wind farms could have started there (Interview 20170829104223). Crediting Meles Zenawi with initiating the deals suggests a classic reading of a “great man” role in directing his country towards intended directions (Hudson & Leftwich, 2014, p. 74). Oral evidence obtained from many respondents working at EEP, MOFEC and MOWIE support the claim that Meles brokered the engagements soon after the 2006 FOCAC in Beijing.

At the informal level, some of the Ethiopian government officials claim the Chinese approached the Ethiopian government but only in the case of Adama 2. A senior government official from MOWIE who was involved in the negotiations presents a less straightforward answer for Adama 2 context: “Ethiopia started the engagement aaaaah maybe it is difficult to answer because the Chinese know that we have the wind potential. So perhaps the Chinese” (Interview 20170609111018). This corresponds with the one CGCOC employee view that: “in case of Adama 1, the Ethiopian side started” (Interview 20170801090344). Another CGCOC employee notes that it was the Ethiopian government which brokered the deals. The employee argues that “Ethiopian government is the one that needed the projects, but I also feel that probably Chinese companies approached them in the case for Adama 2. It is like that in business, some of them will find the market, or sometimes the market will find you” (Interview 20171020140152). A former EEP employ argues that at times, companies approach the government based on the government’s strategic plan. For him, “the government of Ethiopia has five-year plans, the businesses will know there is interest” (Interview 20170614122145). Such a view implies that the Chinese proposed to develop the project using their financing arrangements, which the Ethiopian government accepted.

The excerpts above suggest two things: (i) that it was the Ethiopian government initiative to follow-up on Chinese commitments to finance clean energy development and (ii) it was part of the broader Going Abroad strategy by Chinese enterprises to approach EEP and MOWIE with lucrative proposals. This suggests a similar pattern of findings to that seen by Soule-
Kohndou (2019a) on Benin-China engagements on infrastructure project development. That said, it is logical that HydroChina and CGCOC initiated the engagement for Adama 2 after timely and competent execution of Adama 1. The two Chinese enterprises had gained relevant business experience and were ‘practically’ aware of the wind resource potential around Adama location. This pattern confirms the learning-by-doing approach by the Chinese (Kirkegaard, 2017), which is consistent with the market logic of testing the waters first before going full scale (Tsegaye, 2018).

At the formal level, the Ethiopian government initiated the deals. As explained by an official from MOFEC:

“In every five-year period, normally, three major infrastructure projects are jointly agreed on by the Council of Ministers before the National Planning Commission sets a national development plan (GTP). It is then passed to MOFEC to check if there are financial resources that are available which can be used to achieve the set objectives. If it involves borrowing, then necessary steps are taken. Taking the wind farms as an example, MOWIE would then submit to MOFEC that they want funding. Sometimes the identified priority areas will even be sent directly to the Prime Minister’s office if indeed they are ‘high status’ projects. This is to prioritise which one will be very crucial and should be done first. MOFEC will then be tasked to mobilise financial resources to ensure that the set projects will be achieved. As part of MOFEC, this directorate specifically, and only deals with China. So, we send our national development plan to the MOFCOM and other stakeholders who may have business interests in our country. Interested Chinese stakeholders will then demonstrate their interest. MOFEC then composes a negotiating team which is composed of members of the implementing ministries and their agencies. It should be known that only on financing negotiations, MOFEC liaises with Chinese funders such as C-EXIM Bank, ICBC backed by a negotiating team from the implementing ministries. Once the MOFCOM gives a green light, we begin the negotiation processes. The Embassy and Consulate, in each case, are involved. The entire process is reported to the Prime Minister every time. EEP does the implementation, management and commissioning” (Interview 20170630164633).

The Council of Ministers which is exclusive to EPRDF plans the national development vision in the form of the GTP. This central policy framework helps in coordinating the development pathway of the country. Besides the centrally administered GTP, there is also an institution-based policy framework—a strategy to regulate the basis of achieving the set vision. In the context of the energy sector, this is the National Energy Policy (NEP). To achieve this strategy,
a target-oriented tactic is needed, and in the Ethiopian context, it is the National Electrification Program (NEP) (see figure 6.1).

**Figure 6.1 Planning and implementation of electricity projects in Ethiopia**

![Diagram of planning and implementation of electricity projects in Ethiopia](image)


The contestations on who brokered the deals first, at the informal level, bring to the fore two practices of political symbolism. First, the Ethiopian government want to present a narrative which showcases that it is in charge of its deals with China. Second, the Ethiopian government also want to create another narrative of making itself appear weak, thereby using that strategy as a basis for making more demands during the negotiations.

**6.3 Tracing the negotiation processes: who negotiates?**

The question of who negotiates is highly contextual and requires to be analysed in line with the platform at which the engagements occur, as shown in table 6.1. At the multilateral level such as FOCAC, engagement initiation and informal negotiations are usually handled by the executive branch of the state. These actors have the constitutional and sovereign mandate (Brown, 2013; Williams, 2013) and are internationally recognised and acceptable to act in such a manner (Corkin, 2013). Such include the President, Prime Minister, or Minister (for example Foreign Affairs, Energy, Finance, and Environment). Agreements reached here are not conclusive but set the tone of interactions. Actual negotiations are undertaken by technical experts who will be involved in the execution of the projects. This confirms Brown’s (2012) view of fields of African agency with the state (Ethiopia) and state-based actors (MOWIE, MOFEC, EEP and MFA) representing the operationalisation of agency in the form of engagement brokering with external actors.
The negotiating team is composed of a technical team assembled from bureaucrats and civil servants of the implementing institutions and interested stakeholders. Empirically speaking, there is no difference between bureaucrats and civil servants as they are all government employees. However, as alluded to by a lecturer at AAU, in the Ethiopian context, there is a difference. He argues that bureaucrats, like civil servants, are technical people who are ‘politically’ appointed to safeguard the political and economic interests of the ruling elites, while civil servants are both technical and administrative employees of the government (Interview 20170802154843). As is the case elsewhere, a bureaucrat “works closely with political executives, assisting them in substantiating and enacting their policies” (Christensen & Opstrup, 2017, p. 495). Civil servants “apply considerable discretion [and] consistently call on professional standards” (Ibid, p. 494). Commenting on the Ethiopian bureaucrats, Belachew Mekuria, former head of the EIC, argues that Ethiopia’s “bureaucracy is a very old, it is also typical of a monarchical tradition. Every institution has its own systems, its own turf, its own compartmentalised mandate” (Fick, 2018, p. 1). Ethiopia’s bureaucratic machinery is considered one of the most rigid in Africa (Ibid).

According to a former director of a portfolio in EEPCo, now Chief Executive Officer of EEU, the Ethiopian negotiation team was composed of personnel from EEP, EEU (by then EEPCo), EEA, MOWIE, MFA, MOFEC, National Development Bank of Ethiopia, and Ministry of Labour (Interview 201817015552244). MOWIE and EEP led the technical team while MOFEC led the financial team. EEP and MOWIE negotiated with the Oromia regional government, Adama city administration, Adama and Mojo Woreda, and community leaders and farmers on access to land and compensation. Project consultancy negotiations were handled by EEP and AAUIT (for Adama 1) and MU-ASTU-JV (for Adama 2). For sea transportation, negotiations were between ESLSE (but only for Adama 2) representing the Ethiopian government and HydroChina-CGCOC-JV and Sinotrans representing the contractors.

6.4 Opening the engagement modalities and negotiation black boxes
Negotiation processes between African and Chinese actors are treated as black boxes because of the paucity of information and limited access to how the actual negotiations are conducted (Corkin, 2013; Gadzala, 2015a). In this section, I will show how negotiations and decision-making processes were undertaken by Ethiopian actors in their interactions with other Ethiopians and with Chinese actors. The discussion follows the project life cycle beginning with (i) MOU signing, (ii) feasibility studies and environmental and social impact

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121 Overtime, they can be captured too.
122 Sea transportation for Adama 1 was all handled by HydroChina, no Ethiopian company was involved.
assessments, (iii) tendering and bidding procedures, (iv) project financing modalities, (v) EPC contractual aspects, implementation and project management processes, and finally (vi) land acquisition issues.

6.4.1 Memorandum of Understanding
A Memorandum of Understanding is the agreement of cooperation between two or more parties. The difference between the MOU and Contract is that the latter is legally binding and enforceable while the former is not legally binding but defines the areas of cooperation and the framework under which the cooperation operates. Three MOU frameworks were signed for Adama wind farms. As depicted in figure 6.2, the first MOU framework was signed in 2009 by MOWIE representing the Ethiopian government and MOFCOM representing the Chinese government. The implementing institutions signed two MOUs: EEP and HydroChina-CGCOC-JV. The MOU for Adama 1 was signed on 20th July 2009 while that for Adama 2 was signed on 7th May 2011. The purpose of the MOUs was to formally recognise the demonstration of interests by both parties in the need to advance cooperation around wind and solar energy development. Because of confidentiality clauses of the MOU, the interviewees could not reveal particularities but hinted on the “purpose, scope, areas of cooperation, exchange of information, implementation and cost sharing, supplementary agreements, duration, channels of communications and notices, settlement of disputes” (Interviews 20170609111018; 20170623163225).

Figure 6.2 Adama wind farms MOU framework

The figure above shows the interactions between Ethiopian and Chinese institutions within the MOU framework. It depicts two levels of MOU framework, one at the Ministerial level and the other at the implementing institutions level.

The MOU emphasised the exchange of information between Ethiopian and Chinese institutions and further proposed a joint venture project delivery arrangement. The first MOU also led the Chinese government to provide $1.5 million to HydroChina to comprehensively assess solar and wind resource potential in Ethiopia. HydroChina sub-contracted Beijing Engineering Corporation, its subsidiary, which further sub-contracted the job to the Institute of Atmospheric Physics of the Chinese Academy of Science. The commitment by the Chinese
government to finance the study of solar and wind resource in Ethiopia demonstrates the government strategy of supporting its enterprises to go abroad.

Meanwhile, at the MOU stage, officials note that there was space for cooperation with limited resistance and bargaining. There are three reasons for this. First, the MOUs were setting the tone for future formalised cooperation, and there was no need for contestations. Second, the Ethiopians wanted Chinese technology and finance to develop their wind energy sector. Third, the Chinese were also eagerly interested in tapping into the potentially huge Ethiopian wind energy market. The commonality of interests created a mutual issue (Habeeb, 1988), a context that motivated the two parties to reach an agreement.

6.4.2 Feasibility and the environmental and social impact assessment studies
Feasibility assessment addresses whether a project is operationally, technically and economically feasible. The feasibility studies for both Adama 1 and Adama 2 wind farms were all conducted by the contractor in cooperation with the employer (see figure 6.3). Although the preliminary agreements in both cases suggested that the feasibility studies were to be conducted by a third party, interviews with EEP officials suggest that HydroChina-CGCOC-JV did the feasibility studies instead of a third party. One EEP official argues that “feasibility of two projects were done by Chinese, and the results are skewed favouring Chinese wind turbines. As a result, there were quality issues” (Interview 20170731110952).

HydroChina-CGCOC-JV officials interviewed for this study reject this claim and insisted a third party conducted the assessment. According to EEP officials, the Ethiopian government did not contest HydroChina and CGCOC’s failure to use an independent third party to conduct the feasibility studies for the two wind farms, but strategically laid low allowing the contractor to continue the work. While it may demonstrate passivity, EEP and MOWIE later flexed muscles on the outcome of the studies. The two institutions evaluated the feasibility studies and recommended adjustments to be made by the contractor. One official from EEP notes that “the EEP board and management further reviewed it to check if they had made some necessary adjustments as per our suggestion” (Interview 20170623163225). An official from HydroChina expressed surprise that the Ethiopians had the capacity and skills to substantively evaluate the feasibility studies at that length. He remarked that “Ethiopian people are very intelligent, they are very clever. They have done three projects; now, they know everything” (Interview 20171229144752).

Like the feasibility studies, the environmental and social impact assessment (ESIA) studies were also conducted by the contractor cooperating with EEP and other Ethiopian institutions. The ESIA report documents the impact, mitigation and management processes to show the real opportunities and avoid or minimise adverse impacts of the project. The process includes
public consultation whereby affected stakeholders are asked to contribute their opinions and suggestions, which lead to some rejection or acceptance of the proposed project. Although the contractor conducted the ESIA reports for the two wind farms, they needed to be approved by MOWIE. MOWIE would issue an environmental clearance permit. The permit is critical; it serves as a financial agreement prerequisite by C-EXIM Bank. A former EEP employee notes the following:

“Although the contractor conducted the ESIA, the projects public consultation process was done by EEP and even made use of the Ethiopian Broadcasting Corporation and other local media houses in Adama to promote and make transparent the benefits and advantages of developing wind farms in the selected sites. For me, it was just done to ensure that the public knew about the projects, but in terms of whether they approved it or not, I don't think it mattered because decision had already been made at the top level to go ahead with the projects with or without the public approval” (Interview 20180120178596).

The former EEP employee’s view was corroborated by farmers and community members from the Woreda and Kebele where the wind farms are located. For example, one farmer criticised the Ethiopian government’s conduct of the public consultation process arguing that “we were never consulted, we were simply told the results or outcome of the findings” (Interview 20171102111348 translated from Afaan Oromia to English). Another farmer lamented that EEP and the Chinese “did not come to us directly; they visited the Kebele administration offices and then started working. I was never consulted” (Interview 20171101115937 translated from Afaan Oromia to English). However, a group of farmers note “we were involved with other farmers, there were great discussions and consultation, but after that, the consultation is limited to those in the office, we are no longer part of it” (Interview 201711021212240 translated from Afaan Oromia to English).

There was a clash of values between EEP and MOWIE with regards to Adama 2 ESIA. Technical and confidential documents I reviewed during fieldwork show that EEP asked MOWIE to issue a letter of no objections with regards to the issuance of the environmental permit after the conduct of ESIA by the contractor. Although MOWIE later issued the letter of no objection, initially it did not because the ESIA was not conducted according to the standards and guidelines set by MEFCC. MOWIE highlighted that they could only issue the letter only after the necessary recommendations based on the guidelines set by MEFCC were adhered to. How MOWIE acted when dealing with EEP with regards to the issuance of a letter of no objection suggests a “procedural stratagem”—which entails how civil servants exercise agency by invoking and enforcing legality to influence choice and outcome of an engagement.
This shows that the state is not a monolithic actor as there are competing interests and values which influence the outcomes.

**Figure 6.3 Adama wind farms feasibility and ESIA interactions**

The figure above shows Ethiopian and Chinese actors who were involved in the feasibility and ESIA studies for the two wind farms. Feasibility studies were conducted by BEC being sub-contracted by HydroChina-CGCOC. BEC is listed as a subsidiary of HydroChina. Therefore, claims made by some of EEP engineers that an independent third party was not used could be true. MOWIE and EEP provided the institutional support. For ESIA, HydroChina-CGCOC interacted with EEP with limited participation of the Oromia regional government and the peasant farmers.

The Ethiopian government did not force the contractor to use a third party as stipulated in the contract. As explained by an EEP employee, the government of Ethiopia did not initially recognise that BEC, which was sub-contracted to undertake the feasibility studies was a subsidiary of HydroChina. It was later that they came to know about it. Also, “EEP did not have the technical experience and skills, wind energy is a new sector” (Interview 20170731110952). Besides these explanations, insights from EEP suggests that the Ethiopian government together with the contractor did not want to experience delays as it was likely that an independent party was going to derail progress and lengthen the project timeframe. Insights from HydroChina and CGCOC highlight that the so-called independent ‘third party’ was likely to be from a Western institution and the outcome as viewed by Chinese contractors was likely to be unfavourable\(^{123}\) (Interviews 20170801090344; 20171229144752). Also, the environmental permit which was to be issued after the ESIA, was a pre-requisite for the loan application from C-EXIM bank. EEP, together with the contractor, therefore could not risk appointing an independent third party. This illustration shows how the Ethiopian government collaborated and colluded with the Chinese enterprises to influence interaction outcomes. The Ethiopian government could have pushed the Chinese contractor to appoint an independent third party, but it did not. This is because the Ethiopian government wanted the projects to be

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\(^{123}\) Chinese hinted the possibility of Lahmeyer which could have created a conflict of interest since they were initially planning to have developed the Adama farms. Possibilities were that, Lahmeyer was going to recommend Western turbines, which was against the Chinese business interests.
quickly delivered. Appointing an independent third party could have delayed the process. This could be interpreted as strategic passivity.

6.4.3 Employer-contractor direct bidding and tendering processes
In infrastructure projects, the process of bidding and tendering is often scrutinised by the local and international community. The scrutiny is largely based on the need for transparency and accountability to combat corruption. Bidding and tendering is composed of two essential processes: estimation, which is the determination of the approximate project cost; and adjudication, which is the determination of bidding price (Aje, Oladinrin, & Nwaole, 2016, p. 21). These two processes are significant for quality and cost efficiency. The processes depend on the market, availability of materials, labour and human resource with technical capacity and skills, the source of project financing, project location, contract modality, contractor profit margin, size of the project, and government policy towards that particular sector (Shash, 1993).

Figure 6.4 Adama wind farms employer-contractor direct negotiation process

According to interviews, generally, for the Ethiopian government and particularly EEP, there are three types of bidding negotiation undertaken by the EEP. The first one is direct negotiation with the contractor (see figure 6.4). Here, the government directly contacts the contractor to submit an expression of interest, which is later evaluated by the organisation’s internal processes to check if the potential contractor meets the employer expectations and objectives. The second one is the contractor shortlisting. Here, the government identifies companies which have good experience, reputation and track record of delivering and executing a project through the EPC scheme. The shortlisted companies will be requested to submit an expression of interest, which is evaluated in a similar way as in direct negotiation. Third and finally, the open tender system. Here, the government publicly publishes the call for expressions of interest. A few contractors will be shortlisted and further scrutinised until one contractor is selected, which meets the terms of reference.

According to a TPLF-EPRDF executive committee member, the two wind farms underwent international and competitive bidding processes. For him, “the competition was open for everyone, the Chinese contractor won this tender because they present very good technical presentation” (Interview 20170512172020). However, officials from EEP disagree with the above statement. The Ethiopian government entered a ‘direct negotiation’ bidding and tendering process which was closed to other ‘outside’ potential bidders. The two wind farms,
therefore “did not undergo international bidding, there was no competition” (Interview 20170731110952). In the case of Adama 1, an official from EEP explains the process below:

“The Ethiopian government approached the Chinese government to assist them with funding for construction of wind projects. It was not an open tender system. It was closed as the government then invited expression of interests from Chinese companies (HydroChina-CGCOC124) which was part of the financing agreement that a Chinese company was supposed to develop the wind farms. HydroChina and CGCOC were thus invited to submit their feasibility studies, technical and financial proposal. It was not open to the public. Only HydroChina and CGCOC participated in the tendering process. Some rumours suggested that there was one Egyptian company (El Sewedy Electric) that participated, but no one knows how far true that is” (Interview 20170714094901).

For Adama 2, an EEP official explains:

“It was a direct negotiation with the developer. We wanted the contractor who would come with the loans, for which we would negotiate the financial terms and financing model before awarding the contract. After that, we asked the contractor to submit the financial, technical and commercial proposal. The financial and commercial proposal was evaluated by the purchasing and procurement committees of EEP. After the procurement and purchasing committee approval, we take it to the board and management for evaluation. After these evaluations and approval of the financial, technical and commercial proposal, we entered into negotiations with contractor precisely on the financial and technical aspects. We then reached an agreement; then, the agreement was submitted to the EEP management for further evaluations before a contract was reached between HydroChina and CGCOC. The forward and backward process takes on average 4-5 months” (Interview 20170623163225).

Elsewhere, direct negotiation between the employer and the contractor may be facilitated in instances where the contractor came with a financing arrangement. Empirical studies from an American firm shows that “competitive bidding is associated with higher planned engagement effort and decreased fees, relative to non-competitive bidding” (Johnstone, Bedard, & Ettredge, 2004, p. 46). However, competitive bidding is seen by contractors as an extra layer of administration, delays and complications, especially for Chinese companies in Africa that

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124 A further probe on this suggest that initially, only HydroChina was invited, CGCOC was later included in the deal because HydroChina did not have the market experience of operating in Ethiopia. CGCOC had been in Ethiopia longer than HydroChina and had been registered in Ethiopia as a Grade 1 contractor by 2008.
may not have the necessary experience in the competitive bidding process. As confirmed by
an employee of HydroChina:

“I will prefer shortlisting or direct bidding. For example, on the open tendering system,
60 companies submitted their pre-qualification papers. So, imagine, out of 60, only five
were shortlisted. Ooo no this is funny. EEP should maybe consider the shortlist
tendering system” (Interview 20171229144752125).

Direct negotiation is not an uncommon way of engaging external contractors (Shash, 1993).
According to a TPLF-EPRDF official, the government has awarded several contracts not only
to Chinese enterprises but also the Europeans using direct negotiations. He argues that direct
negotiation with the contractor is out of strategic choice which comes from the country’s
financial limitations and the huge demand for infrastructure development (Interview
20170512172020). Another respondent reiterates the politicians’ view and claims that
Ashegoda wind farm, Gibe 1, 2, 3, Tana Beles hydroelectric power plant and now Great
Renaissance dam (developed by Salini Costruttori, an Italian enterprise) are among notable
foreign contracted mega-infrastructure projects in Ethiopia which were all developed using
direct negotiations with the contractor (Interview 20170829094453).

The decision by the Ethiopian government to go for direct negotiations and not competitive
bidding with the contractor was by desire, and strategic choice. The Ethiopian government
had to conform to the Chinese government unofficial conditionality of finance provision, where
a Chinese enterprise was to be awarded the contract without competitive bidding. This
suggests the significance and conditioning effects of the capitalist world system (Lonsdale,
2000). The Ethiopian government was hemmed into the foreign contractor’s financial
preconditions. In those tight corners, the government was still able to carve out and shape the
details of the engagements strategically.

6.4.4 Project financing: conditions and procedures
The two wind farms were all financed under two preferential loan facilities. Adama 1 was
financed under the preferential export buyers’ credit and Adama 2 under the concessional
loan126. The Ethiopian government applied for the loan to C-EXIM Bank supported by

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125 This response was based on the question I asked the respondent on what he preferred between direct negotiation and
competitive tendering. He used the Metehara solar farm as a case to express his view.
126 According to Chinese EXIM bank, preferential export buyers’ credit is defined as credit given to foreign financial institutions,
the Finance Ministry of the import country, institutions authorized by the government of the import country, and importers, foreign
countries and ship owners that the Bank deems qualified, for their import of Chinese product, technology and service. The loan
is provided both in Chinese yuan and in foreign currencies. Government concessional loan is defined as medium and long term
subsidised (low) cost (interest rate) credit extend by the Chinese EXIM bank under the designation of the Chinese government
with the nature of official assistance. The Chinese EXIM bank notes that “these two facilities are an arrangement made by the
Chinese Government to support other developing countries with concessional funding. China EXIM bank is the only bank
designated by the Chinese Government to implement such facilities” (for more see; China Export and Import Bank
recommendation letters obtained from the Chinese Economic and Business Consulate and the Chinese Embassy in Addis Ababa. The loan application was sent to E-MFA, which then took it to the Ethiopian embassy in Beijing using Ethiopian Airlines¹²⁷ (Interview 20171027105200). The Ethiopian embassy then submitted the loan application to MOFCOM. According to a CGCOC employee, the recommendation letters were significant because “if they do not give the support letter, it is normally difficult to get the funding” (Interview 20170801090344).

The loan application process requires the fulfilment of certain conditions. A senior MOFEC official involved in the application process relays that, “we follow procedures, a feasibility study, ESIA, environmental license and preliminary agreement to award the contract to a Chinese contractor” (Interview 20170630164633). After fulfilling these conditions:

“On July 19, 2009, the Ministry of Finance of Ethiopia proposed the preferential Buyer’s credit loan utilisation projects’ list to Ministry of Commerce of China, the list involved 7 projects, with total amount of more than 1 billion USD, in which the first project is the wind power project, including Adama and Mesobo-Harena” (EEP, 2017b, p. 4).

MOFCOM then reviewed the applications resulting in the wind farms being accorded a high-status profile. Immediately the applications were directed to C-EXIM Bank to structure the financial terms and conditions (see table 6.2). Although MOFCOM agreed to finance the projects, it was the Chinese State Council that approved the applications (see figure 6.5). Just as noted by a CGCOC employee:

“The projects were high status, and they were directly influenced from the Prime Minister’s office who even approved the loans although formally it was handled by MOFCOM. For Adama 1, MOFCOM approved the financing because the amount was smaller, but for Adama 2, the amount was approved by the Chinese State Council because the amount was larger” (Interview 20170801090344).

Meanwhile, the Chinese Ministry of Finance and C-MFA roles were minimal, as explained by EEP and MOFEC officials. The C-EXIM Bank responsibilities were to structure and negotiate the financial terms and condition with MOFEC, operate and monitor the loan disbursement and also administer the collection of principal and interest after the maturity period. The financial terms are presented in table 6.2 below. According to the financial agreement, the collection of principal and payment of interest would be twice per year on 21 January and 21 July of each year.

¹²⁷ According to an official from the E-MFA, the Ethiopian government stipulated that all contract administration and other related documents be transported using Ethiopian Airlines.
Table 6. 2 Financial details of Adama wind farms

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Adama 1</th>
<th>Adama 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>51MW</td>
<td>153MW</td>
</tr>
<tr>
<td>Unit power cost</td>
<td>$2314/Kw</td>
<td>$2254.9/Kw</td>
</tr>
<tr>
<td>Interest incurred during construction</td>
<td>$0.9945 million</td>
<td>N/A*128</td>
</tr>
<tr>
<td>Interest rate</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Project cost</td>
<td>$117 million</td>
<td>$345 million</td>
</tr>
<tr>
<td>Source of financing</td>
<td>15% Ethiopia &amp; 85% C-EXIM</td>
<td>15% Ethiopia &amp; 85% C-EXIM</td>
</tr>
<tr>
<td>Finance modality</td>
<td>Preferential Export Buyer’s Credit</td>
<td>Governmental Concessional Loan**129</td>
</tr>
<tr>
<td>Loan payment</td>
<td>13 years</td>
<td>13 years</td>
</tr>
<tr>
<td>Grace period</td>
<td>7 years</td>
<td>7 years</td>
</tr>
<tr>
<td>Loan maturity</td>
<td>20 years</td>
<td>20 years</td>
</tr>
<tr>
<td>Total investment cost</td>
<td>$117.9945 million</td>
<td>$345 million</td>
</tr>
</tbody>
</table>

Source: Field data obtained from EEP, HydroChina-CGCOC-JV, 2017

Ostensibly, officials from EEP argue that the financing agreement was favourable and unique because:

“Government to government loans are preferred by the government of Ethiopia because there is long-term possibility of debt forgiveness which is not the case if it is not between government to government. Otherwise, EEP would have provided the guarantee for this loan, but we decided to use the MOFEC because there is a possibility in the long run of the Chinese government to cancel the debt if we fail to repay it, unlike if the loans were signed off by the EEP” (Interview 20170623163225).

However, an official from CGCOC rejects the uniqueness of the Chinese financing approach arguing that they follow “standards set by C-EXIM Bank. If you don’t meet the requirements, you will not get the loans” (Interview 20170801090344). It is important to emphasise that this policy conformity applies only to enterprises seeking financial assistance from Chinese

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128 *By the time of conducting fieldwork, project capitalisation report was not yet completed so the interest incurred during construction is not factored in. Total investment cost may be more if interest incurred during construction is added.

129 **Official data does not state whether it was Preferential Export Credits, Export Sellers Credits or Mixed Credits. Simply it is recorded as a government concessional loan. For more details about the financing models, see (Massa, 2011; OECD, 2015) and also Export and Import Bank of China Preferential Facilities on http://english.eximbank.gov.cn/tm/en-TCN/index_640.html
financial institutions (Daouda, Grimm, & Nolke, 2014). Some of the private and (both central and provincial) state-owned Chinese enterprises pursue businesses in ways at times contradictory to the Chinese central government’s policy dictates (Shen & Power, 2017). Competition often leads to contradictions between ‘political’ and ‘commercial’ interests. As such, the majority of Chinese enterprises end up not operating within the regulatory practices of the Chinese government to win contracts in Africa, and this may in some cases be conflictual to the central and provincial governments’ politically driven modus operandi (Gu et al., 2016).

The total investment cost presented in the financial offer and the final agreed amount decreased from $123 million to $117 million for Adama 1 and from $528.85 million to $345 million for Adama 2. According to a MOFEC official, reaching these price agreements was not easy (Interview 20170630164633). The difference in prices is attributed to the Ethiopian government’s ability to negotiate for a low-cost financing arrangement with the Chinese. As alluded to by a former ambassador of Ethiopia to China:

“Every country has to know what is the meaning of relationship and what will be the outcome of the relationship, and we have our policies and strategies. We base those policies and strategies to deal with any country. Is not only China, we deal also with EU, with WB, with AfDB. When it comes to negotiations, we do proper project preparations so that it reach our satisfaction. You have to understand, the attitude of the counterpart, no no no, Chinese are not easy, they are very formidable negotiators, so you need to be as smart as them” (Interview 20170512172020).

While there is no substantial evidence to suggest that the price difference was a result of the Ethiopian government negotiating capacity, it could at least be interpreted as such.
Figure 6.5 Adama wind farms loan application, approval and disbursement framework

Source: Developed from fieldwork data. The figure depicts a simplified loan agreement, disbursement, management and flow framework between Ethiopian and Chinese actors.

6.4.5 Contractual aspects, implementation and project management processes
Adama 1 and Adama 2 were all delivered on an EPC plus financing contract under a build operate (short-term) and transfer (BOT) mechanism. As per Fédération Internationale des Ingénieurs-Conseils (FIDIC) (1999), an EPC contract is the agreement reached between the employer and the contractor in which design, engineering, procurement, construction, commissioning and project handover responsibilities are shifted to the contractor to deliver the
project within agreed cost, time and required performance level, in return for payment of a fixed price (Hosie, 2007).

The Ethiopian government decided to go for the EPC contract as a risk aversion strategy. The government shifted the risk to the contractor (Interview 20171117145704). Risks associated with EPC project delivery mechanism include ‘completion risk’ within “the agreed lump sum price; or agreed timescale programme; or to the required performance quality” (Hosie, 2007, p. 3). This is because mega-infrastructure projects involve many sub-contractors undertaking different components of the project. Because of several sub-contractors (see table 6.3), a potential clash “arises where a plant contains one party’s proprietary technology but is otherwise delivered by another contractor (Hosie, 2007, p. 3). The EPC contractual terms and conditions for both Adama 1 and 2 show that HydroChina-CGCOC-JV as the contractor were obliged to undertake the design, manufacturing, supplying, construction, installation, testing and commissioning of all electrical and mechanical equipment of the two wind farms.

### Table 6.3 Adama wind farms implementation entities

<table>
<thead>
<tr>
<th>Wind farm</th>
<th>Employer/Owner</th>
<th>Contractor</th>
<th>Consultant</th>
<th>Main sub-contractors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adama 1</td>
<td>EEP</td>
<td>HydroChina-CGCOC-JV</td>
<td>AAUIT</td>
<td>Goldwind turbines</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SinoTrans</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SANY Crawler Cranes</td>
</tr>
<tr>
<td>Adama 2</td>
<td>EEP</td>
<td>HydroChina-CGCOC-JV</td>
<td>MU-ASTU-JV</td>
<td>SANY Crawler Cranes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SinoTrans</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SANY turbines</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ESLSE</td>
</tr>
</tbody>
</table>

In addition to the EPC contract, there were also Particular Conditions of Agreement which further detailed the EPC contract. In the Particular Conditions of Agreement, the Ethiopian government put several conditions expected to be fulfilled by the contractor, demonstrating agency as shown below:\footnote{I was only granted access to Adama 2 document. I believe nonetheless that there is no significant difference with Adama 1.}

“The contractor cannot subcontract without the prior consent of the Employer for any part of the work, which was not specifically allowed to subcontract. [...] Ethiopian engineers to monitor and supervise blade and turbine manufacturing processes in China. [...] Provide training to Ethiopian experts (FDRE, 2012, p. xx).
The Particular Conditions of Agreement further stipulated that 30 EEPCo engineers were to be trained in the case of Adama 2 as shown in figures 6.6

**Figure 6. 6 Training proposal by EEP to the contractor for Adama 2**

<table>
<thead>
<tr>
<th>Item</th>
<th>Time/Period</th>
<th>Number of Person</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission of Proposal</td>
<td>Within 28 days after the commencement date</td>
<td>10 persons from EEPCO</td>
<td>The Contractor shall come with the time, detail schedule and course content for the training within 28 days after commencement date for the Employer’s review. The review period shall not exceed 28 days.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 tutors from JV and manufacturers</td>
<td></td>
</tr>
<tr>
<td>The first stage training in China</td>
<td>Within 90 days after the commencement date,</td>
<td>10 persons from EEPCO</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lasting 42 days</td>
<td>5 tutors from JV and manufacturers</td>
<td>General theoretical training, 14 days; Wind park site investigation, 11 days; WTG, tower and transformer factory visit, 14 days; International trip, 3 days;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The second stage training in China</td>
<td>Within 150 days after the commencement date,</td>
<td>10 persons from EEPCO</td>
<td>WTG manufacture practice, 14 days; Tower manufacture practice, 14 days; WTG transportation &amp; installation theories, 11 days International trip, 3 days;</td>
</tr>
<tr>
<td></td>
<td>lasting 42 days</td>
<td>5 tutors from JV and manufacturers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Training at site                          | 56 days                                          | 10 persons from EEPCO                 | Erection training, 7 days;
|                                           |                                                  | 10 tutors from JV and manufacturers    | Test 7 commissioning training, 14 days;
|                                           |                                                  |                                       | Operation training, 21 days;
|                                           |                                                  |                                       | Maintenance training, 14 days |

The training cost in China, expenditure includes round trip air tickets between China and Ethiopia, domestic travel expenses in China, local transportation, food & accommodation, personnel expense (allowance) which is **One Hundred (100) USD** per person/day in China. In addition one supervisor for each group will be assigned to follow the progress of the training and report the status to the higher management.


Additionally, Ethiopian engineers and technicians were to inspect factory manufacturing of the wind turbine generators (WTGs) and associated equipment, towers of WTGs, two main transformers, circuit breaker, and disconnector and other electrical equipment (see figure 6.7).

An analysis of the Particular Conditions of Agreement further highlights that the Ethiopian government is the owner of the projects. With that ownership came with the ability to shape the terms and conditions of the agreement as shown by an excerpt of Adama 2 below:

“The contract shall be governed by and constructed in accordance with the Laws of the Federal Democratic Republic of Ethiopia. Notwithstanding the transfer of ownership of Plant and Materials, the responsibility for care and custody thereof together with the risk of loss or damage thereto shall remain with the Contractor until the date on which the Works or Section is completed as certified in the relevant Taking-Over Certificate. The language of the contract shall be English. All documents, approvals, designs, technical manuals, permits and licenses shall be in English. The Contractor shall provide the notarised English Translation version upon the request of the Employer (Federal Democratic Republic of Ethiopia, 2012, p. xx).
Table 6. 7 Factory inspection proposal for Adama 2

<table>
<thead>
<tr>
<th>Item</th>
<th>Time/Period</th>
<th>Number of Person</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTG and associated equipment</td>
<td>Within 56 days after the commencement date, lasting 15 days</td>
<td>4 persons</td>
<td>Factory inspection and testing before ex-work for the first batch of WTGs</td>
</tr>
<tr>
<td>Tower of WTG</td>
<td>Within 56 days after the commencement date, lasting 15 days</td>
<td>2 persons</td>
<td>Factory inspection and testing before ex-work for the first batch of towers</td>
</tr>
<tr>
<td>2 Main transformers</td>
<td>Within 56 days after the commencement date, lasting 15 days</td>
<td>2 persons</td>
<td>Factory inspection and testing before ex-work for the main power transformers</td>
</tr>
<tr>
<td>Circuit breaker, disconnector and other electrical equipment</td>
<td>Within 56 days after the commencement date, lasting 15 days</td>
<td>2 persons</td>
<td>Factory inspection and testing before ex-work for the first batch of WTGs</td>
</tr>
<tr>
<td>WTG and associated equipment</td>
<td>Within 120 days after the commencement date, lasting 15 days</td>
<td>4 persons</td>
<td>Factory inspection and testing before ex-work for the second batch of WTGs</td>
</tr>
<tr>
<td>Tower of WTG</td>
<td>Within 120 days after the commencement date, lasting 15 days</td>
<td>2 persons</td>
<td>Factory inspection and testing before ex-work for the second batch of WTGs</td>
</tr>
</tbody>
</table>

For the factory inspection costs in China, expenditure includes round trip air ticket between China and Ethiopia, domestic travel expenses in China, transportation in the city, food & accommodation, and personnel expense (allowance) which is One Hundred Fifty (150) USD per person/day in China. The inspection period includes international travel time (2 days for each inspection).


With regards to labour issues, Particular Conditions of Agreement stipulates that:

“Unskilled labour, which is required by the Contractor for the Work, shall be recruited locally directly by the Contractor. The Contractor is encouraged to the extent practicable and reasonable to utilise staff and skilled labour with the required qualifications and experience from sources within Ethiopia. The Contractor and any Sub-Contractor employed on the works may import any personnel that are necessary for the execution of the works (if the expertise skill is not available locally)” (Federal Democratic Republic of Ethiopia, 2012).

Meanwhile, for Adama 1 and 2, there is separate Operations and Maintenance (O&M) contract that was signed by EEP and the contractor. For Adama 1, CGCOC did not participate in the O&M contract as highlighted by officials from EEP:

“Adama 1 agreement was 20 months for operation and maintenance with Goldwind and the contractor. CGCOC did not participate in the Operations and Maintenance agreement. The project was given a five-year warranty period which started from 1 September 2012 to 1 September 2017” (Interview 20170714094901).

For Adama 2, an official from EEP claims “the agreement is that the Chinese were to stay only for two years during operations and maintenance. After two years, the EEP will take full control of the wind farms, and those two years are for skills transfer” (Interview 20170623163225).
On local procurement and subcontracting, the contract stated that the “contractor was to hire local sub-contractors as much as possible” (FDRE, 2012, p. xx). According to one official who was part of the project consultancy team for Adama 2:

“There was a provision in the contract that a certain number of Ethiopian based companies were supposed to participate in Adama 2. But the majority of our Grade A contractors refused to participate because of the rate. The Chinese were complaining that they were too expensive” (Interview 20170811121252).

Mugher cement\textsuperscript{131} was used for turbines foundation and other civil works. Some of the steel was sourced locally and some from China. The majority of machinery and equipment for construction purposes were sourced locally, with a small proportion imported from China. Goldwind manufactured and supplied the turbines and other equipment for Adama 1. SANY Group manufactured and supplied the turbines for Adama 2. SANY Group further supplied a SANY SCC4000 crawler crane and two 80-tonne truck cranes used for lifting the turbines. The SANY contract cost $108 million\textsuperscript{132} (SANY, n.d.). Sinotrans was involved in the ground transportation of the turbines from Djibouti port to project sites while ESLSE was responsible for sea transportation of Adama 2 wind turbines and other parts from China to Djibouti port. For Adama 1 both sea and inland transportation was handled by Sinotrans. The Ethiopian government had the technical capacity to transport the equipment through ESLSE; instead, the contract was given to the Chinese. For Adama 2, it became a heated issue, and after a series of negotiations between EEP and the contractor, the contract was later given to ESLSE. According to an official from ESLSE:

“Ethiopia has nine ships which are designed for big cargo. We fought very hard. We could not allow the Chinese to do that, they did it on the Addis Ababa Light Railway equipment, industrial park equipment, but we said no on the wind farms. They wanted to take everything by themselves; we rejected that. We ended up getting the contract at $74 per freight tonne” (Interview 20171027565623).

Similarly, an official from EEP further corroborates that it was not easy to reach this agreement with the Chinese:

“The Chinese contractors wanted everything. Where we did not have the manpower and skills to undertake such work, we would allow them to use their fellow Chinese. Some of the things that the government refused was, for example, hiring a driver, and even lower grade staff. We refused that. That was the case also with the sea

\textsuperscript{131} Ethiopian government-owned.
\textsuperscript{132} No information was provided for Goldwind contract.
transportation of the technology from China to Djibouti port. The Ethiopian government has an ESLSE which has the capacity to transport the technology. The contract was awarded to ESLSE after long debates and negotiations. In terms of land transportation, we did not have the capacity and the contract was then awarded Sinotrans logistics to transport the technology from port of Djibouti to the project site (Interview 20170714094901).

Another vital condition to highlight here is that all the project consultancy work was contracted to local universities: AAUIT for Adama 1 and MU-ASTU-JV for Adama 2. According to the Particular Conditions of the Contract for Adama 2:

“The consultant will supervise the implementation of the project during the construction stage on behalf of the employer. The consultant and the employer will be responsible for review and no objection of detailed designs, testing procedures and certificates” (FDRE, 2012, p. xx).

The local universities’ roles as project consultants were to supervise the construction of the projects, by administering the contract between EEP and HydroChina-CGCOC-JV and performing commissioning testing of the wind farms. In the case of Adama 1, there were 12 members drawn from mechanical, electrical, and civil engineering departments (Interview 20170626161007) (see figure 6.9). One team member from AAUIT reports that:

“We always had some problems to discuss with the Chinese because they sometimes don’t do it properly. Part of the consultancy was to take corrective measures, to ask the Chinese to do it in the right way. If they do not do it the right way, we had to report to the owner” (Interview 20170620113822).

The Ethiopian government saw the use of local universities as consultancies as a way of transferring skills and technical knowledge to Ethiopians, but the question of how those universities were selected is worth probing. According to AAUIT team member, “AAUIT was selected in the case of Adama 1 as a consultant because it was by then the only institution that had successfully researched design review of wind farms in the country” (Interview 20170626161007). An official from MU explains that MU-ASTU-JV was selected for Adama 2 because of MU previous experience with the Ashegoda wind farm. The government forged MU cooperation with ASTU “to improve local university linkage” (Interview 20170811121252).

To efficiently coordinate the implementation of the two wind farms, the Ethiopian government set up project management institutions that directly engaged the Chinese counterparts. As such, EEP and the consultants (AAUIT; MU-ASTU-JV) set up Project Management Offices (PMO) (see figure 6.8 and 6.9). Similarly, HydroChina-CGCOC-JV created a Project
Management Committee which directly interacted with EEP and the consultancy’s PMOs (see figure 6.10).

**Figure 6.8 Adama wind farms project management structure**

![Project Management Structure Diagram]

Adama wind farms project management office located within the EEP generation department

**Figure 6.9 Adama wind farms project consultancy management structure**

![Consultancy Management Structure Diagram]

Project consultants had their own offices which were further based on scope of work
6.4.6 Land acquisition issues

Land for both Adama 1 and Adama 2 was acquired from Oromia regional government. The regional government issued a license which EEP and the contractor used to access the land. Several processes were undertaken before the land was released to the project office\(^\text{133}\). East Shoa Zone Agriculture office, Lume Woreda Agriculture office, Lume Woreda Land and Environmental Protection office, Adama Woreda Land and Environmental Protection office, Telde Kebele office, Jogo Kebele office, Kusaye Kebele office, Kechema Kebele office, Mukiye Kebele office and Adama City Land Administration Agency conducted the land use inventory. The valuation committee determined the compensation rate which was calculated based on the size and location of the farm, productivity (soil fertility status), and land use at the time of project implementation (FDRE, 2007). The Ethiopian government owns the land in Ethiopia as enshrined in article 40 section 3 and 4 of the constitution:

“(3) The right to ownership of rural and urban land, as well as of all-natural resources, is exclusively vested in the State and in the peoples of Ethiopia. Land is a common property of the Nations, Nationalities and Peoples of Ethiopia. (4) Ethiopian peasants have right to […] protection against eviction from their possession” (FDRE, 1995).

\(^{133}\) Detailed explanation in chapter 7
However, regardless of the constitutional provision, the government retains the right to expropriate land with compensation for national development. The *Expropriation of Landholdings for Public Purposes and Payment of Compensation Proclamation Number 455/2005*-part two section 3.1 states that:

“A Woreda or an urban administration shall, upon payment in advance of compensation in accordance with this Proclamation, have the power to expropriate rural or urban landholdings for public purpose where it believes that it should be used for a better development project to be carried out by public entities, private investors, cooperative societies or other organs, or where such expropriation has been decided by the appropriate higher regional or federal government organ for the same purpose” (FDRE, 2005, p. 3126).

To ensure a standardised land valuation and compensation, the Ethiopian Council of Ministers issued *Payment of Compensation for Property Situated on Landholdings Expropriated for Public Purposes* Regulation number 135/2007 (FDRE, 2007), shown in figure 6.12 below. Of interest is the contradiction between the constitutional provision and the regulation above, where on one hand landholders are supposed to be protected from eviction and on the other hand, national interest trumps individual rights.
At the background of these legalities, it is important to mention that the contractor was not directly involved in land acquisition negotiations. It was the responsibility of EEP in cooperation with the Oromia and local government stakeholders. Additionally, all compensation to farmers was handled by the EPP and money came from some of the 15% of the Ethiopian government’s contribution to the project’s financing. Farmers whose land was taken were all compensated in cash.

The Chinese were not directly involved in land acquisition and access negotiations because, as mentioned by a CGCOC official, land negotiations are a risk, and in Oromia, it is a sensitive issue. For the Chinese, it was best reserved for the Ethiopians to deal with each other. The official explains below:

Source: Compensation regulation135/2007
“Dealing with local people will be more difficult. If I want to invest in the project, the farmer would say I want one million birr, but if EEP go, they will say according to the regulation we should pay you half a million” (Interview 20170801090344).

The process of land acquisition for the two projects was not smooth as farmers initially did not want to lose their land\textsuperscript{134}. The timing was bad because farmers were already looking forward to harvesting their crops. After a series of negotiations, the farmers later agreed to release the land on condition that all the compensation was paid first. The government delayed compensation and that created problems as alleged by CGCOC official, in case of Adama 2:

“Land issue really a big headache. We needed their approval. The farmers, some of them not very friendly. We lose a lot of items during construction time, we lose steel, construction equipment during the construction period. They were stealing because we could not finish the compensation, you would put something aside, and tomorrow you could not find it. But towards the end of the project, a lot of items were found after the police started searching the houses of the farmers” (Interview 20170801090344).

In the case of Adama 1, EEP official claims that:

“The contractors were restricted to operate in certain designated area, temporary and permanent area. When they assemble their equipment and their heavy machinery for lifting the turbines and blades, they ended up affecting crops and land which was not compensated for and that created problems with the local farmers. They went to the extent of stopping the construction. The contractor could not provide money to compensate the affected area because that was not initially agreed on. The farmers took them to court. The Chinese did not know what to do. This happened for two times. We advised them to revise their plan for their requested need for land. They had to revise their drawing. Because we gave them the land according to the initial plan. It was revisited, and the local farmers were catered for. That was the main problem” (Interview 20170714094901).

The Ethiopian government realised that allowing the Chinese to be involved in land acquisition and compensation was going to create a massive problem. Instead, the Ethiopian government took the responsibility. This demonstrates the ability of the government to take necessary control measures to ensure success of the projects timeous and efficiently. It portrays exercise of agency by the Ethiopian government.

\textsuperscript{134} Statistics for affected farmers and the compensation paid is discussed in chapter 7.
6.5 Chapter summary

This chapter has discussed and analysed the engagement modalities and processes of negotiations between Ethiopian and Chinese actors in the financing and developing of Adama wind farms. Actions and choices made by the Ethiopian actors when interacting with the Chinese shows that context in which engagements occur matters. That said, the exercise of agency by the Ethiopians is highly relational. Below, I reflect on the areas where I feel the Ethiopian government exercised agency. While many studies treat Africans as not able to ‘drive’, ‘own’ and ‘shape’ the engagements, be it in the form of negotiations, management and decision-making with China, the case studies of Adama wind farms shows a different story.

Firstly, the Ethiopian government targeted to develop 200 MW of wind energy in the GTP 1. Consequently, Adama 1 (51 MW), Adama 2 (153 MW) and Ashegoda (120 MW) were all developed in this period. The total installed capacity of these three wind farms is 324 MW, which is more than the 200 MW initially planned. Following Fraser and Whitfield (2008), I argue that exercise of agency by the Ethiopian government should be understood within the context of ownership and degree of control over development priorities, project intervention and policy space. As explained by a MOWIE official:

“The fact that these wind plants were chosen is actually an Ethiopia decision. We are collaborating with the Chinese government in many other areas, either roads, railways, or other infrastructure. But the selection and prioritisation of these projects is actually an Ethiopian initiative” (Interview 20171011140053).

The fact that the Ethiopian government had control and influence in shaping the policy space (see figure 6.1) demonstrates control over the realm of decision making (Fraser & Whitfield, 2008). Objectives and interests of the decision makers in Ethiopia, in particular, the Council of Ministers was to develop wind energy. This came out as planned, even more (324 MW vs the 200 MW planned).

Secondly, the Ethiopians exercised agency by brokering and initiating the engagements with the Chinese. Empirical evidence discussed in this chapter shows that for Adama 1, the Ethiopian government approached the Chinese for financial and technical assistance. For Adama 2, at an informal level, the Chinese approached EEP and MOWIE, but at the formal level, it was the Ethiopian government’s responsibility.

Thirdly, the Ethiopian government was at least able to exercise agency when dealing with the Chinese using various and complex institutional structures as regulatory instruments. For example, all financially related negotiations between Ethiopia and China were handled by the Ethiopia-China Development Cooperation Directorate in MOFEC. MOWIE handled all energy policy and related regulatory aspects, and EEP handled all project implementation processes.
Project approval was given by the Council of Ministers which was exclusive to EPRDF members. The parliament ratified the agreements and Girma Wolde-Giorgis\textsuperscript{135} then issued Proclamations\textsuperscript{136}. This created a network of institutions with which the Chinese were expected to negotiate. This suggests a concept of “institutional fixes” which create forms of ‘enclaves'/parallel structures (Mohan & Lampert, 2013, p. 99) that are somehow accountable to the political elites (Corkin, 2015). It is not surprising that EEP—the Board of Directors was chaired by Dr Debretsion Gebremichael, the current President of Tigray region and executive committee member of TPLF/EPRDF\textsuperscript{137}.

Fourthly, the EPC contractual terms, project implementation, management, operations, and maintenance suggest how the Ethiopian government was able to influence the engagement’s direction. To begin with, the idea of going for an EPC plus financing arrangement shows strategic planning by the government. The two projects could have been delivered under any other model, but the Ethiopian government realised its weakness (finance, technical skills and capacity) and suggested an EPC model where risks were shifted to the contractor. By that same account, the total project cost presented in the financial offers and the final agreed figure shows a massive reduction, perhaps a discount which can be implicitly accredited to the negotiation capacity of the Ethiopian government. That said, the idea of using the same contractor, same financier (C-EXIM bank) on two different projects in capacity shows the Ethiopian government’s mitigation against donor commitment uncertainty, regulatory considerations and compliances.

The EPC contractual terms, project implementation, management and operations were other fields where the Ethiopian government exercised agency. A case in point is the use of local universities as project consultants for the two wind farms. The government wanted to empower and create local university linkages in the wind energy sector. It is ordinarily unusual to use inexperienced local university professors as consultants. That said, the Ethiopian government wholly owns the two wind farms. To ensure maximum retention of control in the projects, the government instituted a limited O&M period for the contractor in both cases to allow local engineers and technicians to learn on the job. It is again unusual to have shorter O&M contracts in such massive infrastructure projects that require a high level of technical

\textsuperscript{135} Former President of Ethiopia from 8 October 2001 to 7 October 2013.
\textsuperscript{136} For Adama 1, it was Proclamation No. 696/2010 Export Import Bank of China Credit Agreement to Provide Loan for Financing the Adama/Nazreth Wind Power Construction Project Ratification Proclamation; and for Adama 2 it was Proclamation No. 795/2013 Export-Import Bank of China Loan Agreement for Financing the Adama Wind Power Construction Project (Phase II).
\textsuperscript{137} The new chairman of the board of directors is Girma Birru who is a central committee member of the OPDO. Before the board of directors chairman was Debretsion Genremichael and the board members were Debebe Abera who by then served in the Prime Minister’s Office as a Minister; Ahmed Abetew (by then Minister of Industry), Dr Workeneh Gebeyehu by then Minister of Transport, Brigadier General Kinfe Dagnew (by then General Director, METEC), Mekonnen Manayzewal (by then Commissioner of National Planning), Adamu Ayana (by then State Ministry of Civil Service) Motuma Maqasa (from the Ministry of Water, Irrigation & Energy) and Amanuel Kiros (from National Intelligence and Security Service).
competence (Chen, 2018). There were also three project implementation and management offices which could be considered project ‘management fixes’ (one for EEP, one for Consultants and one for Contractor). In the case of Adama 2, the Ethiopian government rejected the Chinese proposition that sea transportation for Adama 2 was to be done by SinoTrans, a Chinese company. Instead, the job was given to ESLSE, which demonstrates the ability of the Ethiopian government to make demands even in tight corners (Lonsdale, 2000). Local content and procurement were also enforced but only in circumstances where there was local capacity. A closer and critical analysis of the contractual terms and conditions as discussed above demonstrates exercise of agency by the Ethiopian government when dealing with the Chinese.

Fifth and finally, at the very bottom layer of the interactions, farmers—non-state actors demonstrated agency when dealing with the Ethiopian government and the Chinese. Farmers initially resisted the release of land, stopped the construction, and later removed construction materials from Chinese construction sites when the Ethiopian government delayed payment of compensation. This demonstrates James Scott’s (1985) weapon of the weak ideas. Stealing was innovatively used as a way of making the Ethiopian government fulfil the compensation commitment. The equipment was later recovered. In a nutshell, Ethiopia-China engagements through the wind farms’ project lifecycles highlight pockets of agency by the Ethiopian government. It is therefore vital to understand the context in which the interactions occur. In the next chapter, I discuss the outcomes and local development impacts of the two wind farms.
Appendix 6. 1 Historical traces of Adama wind farms development in Ethiopia

<table>
<thead>
<tr>
<th>Year</th>
<th>Event/Report/Activity</th>
<th>Stakeholder/Actor</th>
<th>Description of activity/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>Contributo Alla Climatologia Del Risultati E Tableu, Metyerogiche E Pluviometriche’</td>
<td>Fantoli A</td>
<td>Academic study to assess wind resource potential in Ethiopia (including Eritrea by then)</td>
</tr>
<tr>
<td>1988</td>
<td>Wind Energy Survey in Ethiopia</td>
<td>W. Wolde-Ghiorgis</td>
<td>Academic study to assess wind resource potential in Ethiopia. This considered the first generation research on commercial wind energy development in Ethiopia.</td>
</tr>
<tr>
<td>1996</td>
<td>Assessment of solar and wind energy resources in Ethiopia II. Wind energy</td>
<td>Mulugetta Y &amp; Drake F</td>
<td>Academic study to assess wind resource potential in Ethiopia.</td>
</tr>
<tr>
<td>2004</td>
<td>Solar and Wind Energy Resource Assessment (SWERA)</td>
<td>FDRE (MOWIE, EEPCo), GIZ &amp; UNEP</td>
<td>Solar and Wind Energy Resource Assessment (SWERA) for Ethiopia completed in October 2004, funded by The German Aerospace Centre and UNEP.</td>
</tr>
</tbody>
</table>

**ADAMA 1**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event/Report/Activity</th>
<th>Stakeholder/Actor</th>
<th>Description of activity/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007/8</td>
<td>Project initiation</td>
<td>Ethiopian government</td>
<td>Ethiopian government begins processes for the financing and construction for Adama wind farm. Chinese companies invited to send proposals and expression of interest.</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
<td>Implementing Institutions</td>
<td>Details</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
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<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2009</td>
<td>MOU for development of wind energy</td>
<td>MOWIE and MOFCOM</td>
<td>Ethiopia signs an MOU with MOFCOM to develop Adama Wind farm</td>
</tr>
<tr>
<td>2009</td>
<td>MOFCOM gives the contract to HydroChina</td>
<td>MOFCOM &amp; HydroChina</td>
<td>MOFCOM appoints HydroChina to undertake the project. It is unclear under which conditions was the contract given to HydroChina. Some accounts suggest HydroChina is the largest state-owned enterprise involved in the standardisation of wind technology in China. It has developed many wind projects in China and is believed to be more experienced. So, it could have been given the contract based on merit (Interview with HydroChina and CGCOC project management team for Adama 1 &amp; 2 projects.)</td>
</tr>
<tr>
<td>19/07/2009</td>
<td>Ethiopia proposes preferential buyer’s credit loan utilisation to MOFCOM</td>
<td>MOFEC and MOFCOM</td>
<td>MOFEC proposed the preferential buyer’s credit loan utilisation projects’ list to MOFCOM, the list involved 7 projects more than $1 billion, including Adama and Mesobo-Harena.</td>
</tr>
<tr>
<td>20/07/2009</td>
<td>MOU to establish financing and EPC contract</td>
<td>EEP and HydroChina &amp; CGCOC-JV</td>
<td>MOU between Ethiopian and Chinese implementing institutions for Adama wind farm</td>
</tr>
<tr>
<td>22/09/2009</td>
<td>Preliminary Agreement for Co-Financing and turnkey delivery of Adama &amp; Mesobo-Harena</td>
<td>EEP and HydroChina &amp; CGCOC-JV</td>
<td>Preliminary Agreement signed in which the actual contract was to be signed after fulfilment of requirements from both parties.</td>
</tr>
<tr>
<td>2009</td>
<td>Goldwind Company contracted to supply wind turbines technology</td>
<td>HydroChina—CGCOC-JV &amp; Xinjiang Goldwind Company</td>
<td>Goldwind Company sub-contracted by HydroChina-CGCOC-JV to supply and install the wind turbines</td>
</tr>
<tr>
<td>2009</td>
<td>Feasibility Study</td>
<td>HydroChina</td>
<td>HydroChina conducted the study with the support of MOWIE and EEP using its subsidiary, Beijing Engineering Corporation.</td>
</tr>
<tr>
<td>2009</td>
<td>ESIA</td>
<td>HydroChina with cooperation from MOWIE &amp; EEP</td>
<td>According to informants, the ESIA was conducted simultaneously with the feasibility study.</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Institution(s)</td>
<td>Details</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>28/11/2009</td>
<td>Contract signing for implementing Ethiopian and Chinese institutions</td>
<td>EEP and HydroChina &amp; CGCOC-JV</td>
<td>EPC plus financing contract signing between EEP and HydroChina-CGCOC-JV</td>
</tr>
<tr>
<td>12/2010</td>
<td>Micro-siting and Final ESIA Report</td>
<td>HydroChina-CGCOC-JV</td>
<td>A technical study is detailing the actualisation and implementation of the project.</td>
</tr>
<tr>
<td>21/01/2011</td>
<td>The Ethiopian Parliament &amp; the Prime Minister approved the loan agreement; the E-MFA sent its letter to C-EXIM Bank advising the approval of the Loan Agreement by the Government of Ethiopia</td>
<td>Ethiopian Parliament, Ethiopian Prime Minister, E-MFA, C-EXIM Bank</td>
<td>After the approval by the Ethiopian Council of Ministers, Parliament and Meles Zenawi, then Prime Minister, the Ethiopian government submits a loan of approval agreement to the C-EXIM Bank</td>
</tr>
<tr>
<td>31/01/2011</td>
<td>MOFEC signed the on-lending Agreement with EEP</td>
<td>MOFEC &amp; EEP</td>
<td>Necessary pre-requisite for the provision of a sovereign guarantee to the lender.</td>
</tr>
<tr>
<td>25/05/2011</td>
<td>C-EXIM Bank approves the loan (Effectiveness of the Loan Agreement)</td>
<td>C-EXIM Bank &amp; MOFEC</td>
<td>C-EXIM Bank informed the MOFEC for the Effectiveness of the Loan Agreement.</td>
</tr>
<tr>
<td>2011</td>
<td>Contract of Agreement for Consultancy</td>
<td>EEP &amp; AAUIT</td>
<td>Signed between EEP and AAUIT to administer the contract between the Employer (EEP) and the Contractor (HydroChina-CGCOC-JV).</td>
</tr>
<tr>
<td>06/2011</td>
<td>Construction begins (mobilisation of resources and the actual construction)</td>
<td>Multiple stakeholders (Ethiopian and Chinese)</td>
<td>Commencement of construction of the project</td>
</tr>
<tr>
<td>01/09/2012</td>
<td>Project completion and commissioning</td>
<td>The Ethiopian government, HydroChina-CGCOC-JV and the Chinese government (Embassy &amp; Consulate in Addis Ababa).</td>
<td>Project completed and connected to the national grid</td>
</tr>
</tbody>
</table>

**ADAMA 2**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Institution(s)</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>MOU for development of wind energy</td>
<td>MOWIE &amp; MOFCOM</td>
<td>The Memorandum signed also covered future cooperation in wind energy development. So, the process is traced from the Adama 1 case.</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
<td>Initiating Parties</td>
<td>Additional Information</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2010/11</td>
<td>Project initiation processes begin</td>
<td>Ethiopian government &amp; HydroChina-CGCOC-JV</td>
<td>While in Adama 1 it was the Ethiopian government that initiated the move, in this case, informants agree that it was HydroChina-CGCOC-JV that initiated the move. Of course, formalisation of the engagement was undertaken by the Ethiopian government.</td>
</tr>
<tr>
<td>10/2011</td>
<td>Draft Master Plan of Wind and Solar Energy in Ethiopia</td>
<td>Institute of Atmospheric Physics of the Chinese Academy of Science; MOFCOM; HydroChina &amp; Beijing Engineering Corporation</td>
<td>The first draft of the Master Plan for Wind and Solar Energy Development in Ethiopia. This was at the backdrop of HydroChina contracting of BEC which then sub-contracted the IAP of the Chinese Academy of Science to undertake the Solar and Wind Energy Master Plan for Ethiopia</td>
</tr>
<tr>
<td>07/05/2011</td>
<td>MOU for Financing and Turnkey Delivery for Adama 2</td>
<td>EEP &amp; HydroChina—CGCOC-JV</td>
<td>MOU between EEP and HydroChina-CGCOC-JV for the financing and EPC contract</td>
</tr>
<tr>
<td>07/2012</td>
<td>Master Plan of Wind and Solar Energy in Ethiopia (2 wind farm sites recommended (Adama 2 included)</td>
<td>IAP of the Chinese Academy of Science; MOFCOM; HydroChina; BEC; MOWIE; MOFEC &amp; EEP</td>
<td>Final Report for Solar and Wind Energy Master Plan for Ethiopia in which 51 wind farm sites were identified for potential wind energy development</td>
</tr>
<tr>
<td>11/10/2012</td>
<td>Contract signing</td>
<td>EEP &amp; HydroChina-CGCOC-JV</td>
<td>EPC plus financing contract signing between EEP and HydroChina—CGCOC-JV</td>
</tr>
<tr>
<td>10/2012 to 06/2013</td>
<td>Financial negotiations</td>
<td>MOFEC &amp; Chinese EXIM Bank</td>
<td>Financial negotiations between MOFEC and C-EXIM Bank</td>
</tr>
<tr>
<td>2013</td>
<td>Feasibility Study</td>
<td>HydroChina with the support of EEP, MOWIE, and CGCOC</td>
<td>Unconfirmed reports suggest that Chinese state-owned companies were given tenders to perform and design technical works of the turbines, geological surveying, e.g. Beijing Engineering Corporation. Other Chinese companies participated in the civil works and electromechanical works using HydroChina-CGCOC cover without the notice of the EEPCo</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
<td>Responsible Parties</td>
<td>Details</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
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<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2013</td>
<td>ESIA</td>
<td>HydroChina-CGCOC-JV with the support of EEP &amp; MOWIE and other Ethiopian stakeholders</td>
<td>Study to conduct the environmental and social impact of the wind farm in the affected Woreda</td>
</tr>
<tr>
<td>2013</td>
<td>SANY Group contracted to supply wind turbine technology for Adama 2</td>
<td>HydroChina-CGCOC-JV</td>
<td>SANY to supply the wind turbine technology to be deployed in Adama 2</td>
</tr>
<tr>
<td>2013</td>
<td>Agreement of Ocean Transportation of Adama 2 Equipment</td>
<td>ESLSE: HydroChina-CGCOC-JV and SINOTRANS LTD</td>
<td>Agreement for ocean transportation of the equipment from China to Djibouti</td>
</tr>
<tr>
<td>13/05/2013</td>
<td>Contract of Ocean Transportation of Adama 2 Equipment</td>
<td>ESLSE &amp; HydroChina-CGCOC-JV</td>
<td>The contract for ocean transportation of the equipment from China to Djibouti</td>
</tr>
<tr>
<td>2013</td>
<td>Contract of Agreement for Consultancy</td>
<td>EEP; MU &amp; ASTU</td>
<td>MU and ASTU employed by to administer the contract between EEP (the employer) and HydroChina-CGCOC-JV</td>
</tr>
<tr>
<td>06/07/2013</td>
<td>Construction begins (mobilisation of resources and the actual construction)</td>
<td>Multiple Ethiopian and Chinese stakeholders</td>
<td>Commencement of the construction of the project</td>
</tr>
<tr>
<td>18/05/2015</td>
<td>Project completion and commissioning</td>
<td>The Ethiopian government, HydroChina-CGCOC-JV and the Chinese government (Embassy &amp; Consulate in Addis Ababa).</td>
<td>Project completed and connected to the national grid</td>
</tr>
</tbody>
</table>

The table above shows the historical traces of wind energy development in Ethiopia.
CHAPTER SEVEN: INTERROGGATING THE ENGAGEMENT OUTCOMES AND LOCAL DEVELOPMENT IMPACTS OF ADAMA WIND FARMS

7.0 Introduction
The outcomes and impacts of Chinese developed infrastructure projects in Africa is centre stage in academic, policy and media analysis. Researchers have paid attention to impacts of Chinese involvement in Africa’s trade sector (see Eisenman 2012; 2015), extractive sector (see Brautigam 2009; Taylor 2010), transport infrastructure (see Foster et al. 2008; Arewa 2016) and mega hydropower projects (see Hwang, Brautigam, & Wang, 2015). However, engagement outcomes and development impacts of China’s role in financing and developing wind energy infrastructure in Africa let alone Ethiopia, are not well understood (Baker & Shen, 2017; Chen, 2016; Shen & Power, 2017).

This chapter examines the outcomes and local impacts of Ethiopia-China engagement in the financing and developing of Adama wind farms. Findings from this chapter are drawn from literature sources, technical document reviews and interviews conducted with Ethiopian and Chinese stakeholders involved in the projects. Due to limitations and unavailability of potentially quantifiable data regarding direct and indirect impacts and outcomes, the assessment is primarily based on qualitative accounts of those involved and affected by the projects. The chapter argues that given the multiplicity of social, economic and political actors involved in the wind farms, the outcomes and impacts are likewise multiple and variegated. The outcomes are experienced at the local and national level. At the local level, the impacts are on local job creation, skills and technology transfer, rural road infrastructure development and resultant forward and backward linkage to the rural economy in the respective communities during and after the construction of the wind farms. I further argue that ‘in the name of development’ peasant farmers experienced government facilitated land dispossession, which negatively impacted on the communities’ livelihood capabilities (Gebresenbet, 2016).

At the national level, on the one hand, I argue that the engagement between Ethiopia and China in the wind farms contributes to the proliferation of new forms of cooperation and at the same time, generation of negative discourses that present Chinese domination in Ethiopia’s development trajectories (Crowen, 2018). The development of wind farms is also seen through the lenses of ‘debt trap’ diplomacy and the potential impacts on Ethiopia’s sovereignty. On the other hand, the wind farms have also ‘opened’ Ethiopia’s wind energy market and generated interest to international developers, which impacts on future wind energy project contracting
and delivery mechanisms. To adequately capture these varied perspectives, the chapter is divided into three sections. The first section discusses outcomes and impacts at the local level, followed by a discussion at the national scale. The last and concluding section critically examines whether the engagement outcomes and impacts in the two wind farms directly reflect agential dimensions of the Ethiopian state and non-state actors or reflects the conditioning effect of Chinese capital.

7.1 Development outcomes and impacts at the local scale
From 2000 to about 2013, Ethiopia experienced annual economic growth of 9.5% second only to Angola in sub-Saharan Africa (World Economic Forum, 2016). Much of this growth has been happening at the margins of Addis Ababa, in the Zones and Woredas inhabited by communities whose livelihoods predominantly depends on subsistence agriculture. Development at the margins of Addis Ababa in this study relates to the interventions, whether private or public, that affects positively or negatively communities’ livelihood capabilities. The majority of these interventions at the margins have, however, been captured by transnational and domestic capital serving the interest of a few economic and political elites at the expense of the people for whom the interventions are allegedly targeted.

7.1.1 The question of local employment and skills development
The proliferation of Chinese enterprises and their operations in Africa has attracted a lot of international and local attention concerning their employment practices. In 2014, former American President, Barack Obama, advised African leaders that “make sure that if, China is putting in roads and bridges, […] that they are hiring African workers” (The Economist, 2014, p. x). Often, Chinese enterprises are accused of (i) bringing Chinese workers, (ii) paying low wages, (iii) exploiting African workers and not providing good working and living conditions, and (iv) do not offer training and skills development for African employees (Xiaoyang, 2016). To the contrary, Sautman and Hairong (2015) researched over 400 Chinese companies in Africa and found that more than 85% of the workers are Africans. Similarly, a McKinsey and Company report further dispelled the view that Chinese companies only hire Chinese; of the more than 1000 Chinese companies surveyed, over 89% employed Africans (Sun et al., 2017). In the case of Ethiopia, do Chinese enterprises employ Ethiopians, and are they fairly remunerated? Schiller’s (2005) research on Ethiopia-China cooperation in the development of the Tekeze dam suggests that the Chinese enterprises imported Chinese labourers and engineers.

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138 Independent Power Producer (IPP) model.
Research conducted by World Bank in 2011 shows that in the 69 Chinese companies surveyed in Ethiopia, there were 18,368 permanent, full-time workers of which 15,910 were locals (World Bank, 2012). Monthly average salaries were 1,445 birr ($85) which is more than the International Labour Organisation (ILO) international minimum wage\textsuperscript{140} of $57 per month (Ferreira & Sanchez-Paramo, 2017). 69\% of the “surveyed Chinese companies provide[d] formal training programs for Ethiopian workers, whereas only 38\% of domestic firms would invest in such programs” (World Bank, 2012, p. 12). Recent studies confirm that Chinese firms employ more Ethiopians than other foreign firms (Xiaoyang, 2016). For example, Schaefer and Oya (2019) shows that Chinese firms have a more than 90\% workforce localisation rate in Ethiopia’s construction and light manufacturing sectors. In the construction sector, Schaefer and Oya (2019, pp. 30–32) notes that low skilled workers in Chinese firms are paid an average of ETB 1,503 ($65) per month while in other foreign firms, workers earn an average of ETB 1,740 ($75) per month. In Ethiopian firms, workers earn an average of ETB 1,699 ($74) per month. For semi-skilled level in Chinese firms, workers earn an average of ETB 4,422 ($192) per month compared to ETB 6,175 ($268) in other foreign firms. In Ethiopian firms, semi-skilled workers earn ETB 6,141 ($266)\textsuperscript{141}. Evidence presented above suggest that Chinese slightly pay less than Ethiopian and other foreign firms in the construction sector in Ethiopia (Schaefer & Oya, 2019). Also, Chinese firms hire more local workers than Chinese expatriates in the construction sector. As such, claims made about Chinese enterprises employing more Chinese than Ethiopian workers does not hold water (Oya, 2018b). There are justifications for that. According to Xiaoyang (2016), it is more expensive to hire Chinese expatriates than locals in Ethiopia:

“China-Africa Overseas Tannery reduced the number of Chinese technicians from thirty-three to twenty-three within one year, as local engineers were promoted to the positions of supervisor. Huajian shoe factory moved even faster. It started operation in January 2012 with over three hundred Chinese. By July 2012, local workers had already replaced approximately one hundred Chinese expatriates” (Xiaoyang, 2016, p. 111).

On the Adama wind farms, several hundred Ethiopians were employed as unskilled, semi-skilled, and skilled personnel\textsuperscript{142} (see appendices 7.1 to 7.11). For Adama 1 employment statistics reported in the project commissioning documents and the one obtained from the respective project management offices state that a total of 1100 personnel were employed out

\textsuperscript{140} Ethiopia does not have a minimum wage as compared to 90\% of the ILO member states.

\textsuperscript{141} \$1 =ETB 23.08 in mid-2017.

\textsuperscript{142} Cooking, excavations, concrete pouring, road construction, security guard and any other non-technical jobs as deemed necessary by the employer.
of which 800 were Ethiopians, and 300 were Chinese (see appendices 7.1 to 7.11 showing monthly employment statistics). The contractor in liaison with EEP hired all local employees, and all unskilled employees were from the Adama locality, and most were Oromos. The appendices depict the monthly distribution of employment statistics for Ethiopian and Chinese workers in Adama 1 per type of work. Ethiopians were hired more than the Chinese in Adama 1. This dispels claims that Chinese enterprises tend to hire more Chinese than locals. However, as highlighted in appendices 7.1 to 7.11, management and related technical positions were dominated by Chinese. This is because foreign firms, including the Chinese, tend to place their expatriates in senior management positions citing absence of local skills and capacity as a justification. In the Adama wind farms, EEP and MOWIE officials who participated in this study agree that they have limited technical and management skills to occupy such positions. Figure 7.1 below shows Adama 1’s monthly distribution of Ethiopian and Chinese workers as a percentage. It shows that Ethiopian workers dominated the labour pool from the start of the project in August 2011 to the end in August 2012. Also, the number of Chinese workers decreased towards the end of the project, and by August 2012, only 17% of the total workforce were Chinese while the rest were Ethiopians. Towards the end of the construction period, few Chinese technical staff were required, and this explains the decrease from June-July to August 2012. The peak percentage proportion of Ethiopian workers was recorded in June-July at 84% and for Chinese in March, April-May at 31%.

Figure 7.1 Adama 1 monthly distribution of Ethiopian vs Chinese workers (%)

![Figure 7.1](image)

Source: Adama 1 Employment Statistics Report

For Adama 2 no comparable staffing data was available during the time of fieldwork. However, the project commission report obtained from MOWIE suggests that of the total labour force, 1200 were Ethiopians, and 280 were expatriates. However, the figure for foreign workers does not tally with data obtained from other sources. According to one EEP official:
“1200 local people were employed, which were majority unskilled, accounted for more than 90% of the total labour. 300 people came from China, 5 from Germany. Women were involved in soft work, such as cleaning, surveying, and cooking. Women were about 305 of the total workforce during the peak time of the project construction. Chinese workers brought their cookers, especially women. There were also translators who were involved in the project. During the Operations and Maintenance period, there are about 45 Ethiopian engineers and 12 Chinese engineers” (Interview 20170623163225).

Local farmers benefited during the construction of the projects. Some were employed as manual labourers and some as security guards. For Adama 1, there are currently 34 security personnel guarding the turbines143 (Interview 20170714094901). Farmers explain their feelings about employment experience at Adama wind farms:

“It was a great experience, I was never in any level of workforce before, but I was a cooker there. I used to cook food and feed workers around the project” (Interview 201711021212240 translated from Afaan Oromo to English).

“I am still working as a guard on the wind farms and the experience is something good for me to make money” (Interview 20171101130419 translated from Afaan Oromo to English).

“Even that time I was making a few hundred Birr, but it was not that much, but it helped here and there” (Interview 20171101130419 translated from Afaan Oromo to English).

While many farmers were happy due to employment creation, some were not with regards to the overall benefit, compensation for land and the public consultation processes (I revisit this in the next section). Some farmers complained that the salary was not enough. For unskilled workers, the salary range was from ETB 600 ($34.6) to ETB 1000 ($57.73) per month144. As noted by an EEP official:

“In terms of employment rights and right to complain, not to say that the Chinese were very abusive and did not treat Ethiopian workers well, but many people were looking for employment at the time and even up to now. That limited their bargaining power because the Chinese could look for other people to work for them. Those who were employed could not stand a chance to strike or disagree with the remuneration. That gave them a disadvantage. Local job creation was relatively poor and was not as it had been expected by the government. This was because the government was not able to

143 No data is provided for Adama 2
144 Using December 2011 exchange rate of ETB 17.3204/$1
meaningfully control the Chinese, especially at the early stages, the Chinese would bring a driver or other lower grade staff. It was only in the 6th or 7th month that the government woke up and started protesting other things” (Interview 20170714094901).

As shown in the excerpts above, the Ethiopian government was not happy about how local jobs were created in the case of Adama 1. At the same time, workers were not happy with the salary they received from the Chinese, but they were not at liberty to ask for more. In Ethiopia, hundreds of youth are looking for the same job, which generates a lot of competition (Oya, 2018a). This, therefore, confirms widely held perceptions that the Chinese tend to underpay African (Ethiopia) workers in relation to what they pay fellow Chinese (Fei, 2018). It was noted by an official from EEP that:

“In terms of salary, you will find that the Chinese will earn double for the same work that was being done by local engineers. The accommodation was same, although the working and living conditions were better for locals than the Chinese. EEP employees could get overtime, not sure if that was the same arrangement with the Chinese. Ethiopian workers also had holiday allowances.” (Interview 20180120178596).

**Figure 7.2 Employment statistics for Adama 1 & 2**

<table>
<thead>
<tr>
<th>Total number of workers</th>
<th>Ethiopian staff</th>
<th>Chinese &amp; expats staff</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adama 1</td>
<td>800</td>
<td>300</td>
<td>1100</td>
</tr>
<tr>
<td>Adama 2</td>
<td>1200</td>
<td>280</td>
<td>1480</td>
</tr>
</tbody>
</table>


Several explanations exist on how Ethiopia was able to control the amount of Chinese and foreign expats involved in the two wind farms. The Ethiopian government has always enforced localisation in the context of Chinese enterprises’ operations. The Labour Proclamation Number 377/2003, 174 (1), (2) and (3) clearly states that the foreigners work permit is for three years and is annually renewed at the subjective discretion of the Ministry of Labour (FDRE, 2004). Some Chinese officials from CGCOC mentioned that it was difficult to obtain work permits and resident cards. However, officials from EIC argued to the contrary, suggesting that those that faced difficulties was because they breached labour regulations, particularly
having a higher proportion of foreign workers to locals. Accordingly, EIC would not renew work permit and resident cards of their Chinese workers (Interview 20170613100147). Just as noted by an EIC official:

“We permit foreigners to stay only for 3 years to the maximum. There was a case you will find 10 Ethiopians and 10 Chinese proportional, it was simple, we will not renew permits for the Chinese. By the way, work permits are renewed on annual basis. So, we will see their data if they are complying to the rules and regulations. But the maximum is 3 years unless is a manager, supervisor. We are pushing always to employ the locals. If the numbers of foreigners are very high, we tell them to reduce and employ more locals. They are also very good to take action when you tell them, the managers are good, they are not opposing, immediately, they will take corrective action” (Interview 20170613100147).

The Ethiopian government demonstrates agency by using the Labour Proclamation to regulate foreign workers. It should be noted that besides the use of regulation by the Ethiopians, it is also becoming expensive for Chinese enterprises to hire foreigners. At the same time, due to international pressure and media scrutiny levelled against the Chinese, more locals are being hired to water-down the allegations (Fei, 2018; Oya, 2018b).

7.1.2 Rural economic development? Forward and backward linkages

Both Ethiopian and Chinese officials celebrate the construction of Adama wind farms as having contributed to rural economic development in Mukiye, Bubisa, Qachema, Kobolito, Sere-robi, Jogo Gudedo, Tede-dildima, and Mele-mele Kebeles during and after the construction period. According to information obtained from EEP for Adama 1, the road construction was about 13-14km, and most of the roads are for accessing the turbines. A significant proportion of the roads already existed, but they were rehabilitated. CGCOC constructed all roads and undertook civil engineering for the wind farms. As such, no local companies were involved in Adama 1(Interview 20170714094901). In Adama 2, 65km of new roads were constructed and an additional 2.5 km old tarred road was rehabilitated to connect the plant control office with the main road to Adama city. Unlike Adama 1, Adama 2 road construction was sub-contracted to local companies. An official from EEP commented that road construction:

“Was given on the basis of packages, 5km for one contractor, then the other 5km to another contractor to ensure speedy construction. One contract would start the construction from point A to point B and another contractor from Point C to B at the same time. Some of the materials for road construction were sourced from the local supplies such as Mugher cement, steel and sand. And even some of the machinery
and equipment which was used were also rented from local contractors” (Interview 20170623163225).

A Chinese employee confirms that local contractors were employed to undertake some of the civil works:

“We also gave a small job to Teclabrahon Ambaye Construction, they can do the civil works. But for installation, they could not do, because you need a special crane to lift the items. By that time, they did not have experience to do such kind of work” (Interview 20170801090344).

Construction of roads has brought benefits to the communities. Farmers relay that the roads have connected villages making commuting more efficient and remote places accessible, as captured in the following accounts by community members:

“Road construction is a benefit that we got from the construction of these projects. We used to walk to buy food, now they can use Bajaj and the pregnant women can be transported very easily to the clinic” (Interview 20171101100610 translated from Afaan Oromo to English).

“The road construction was a big positive development for the community. Now we have buses that go from Mukiye Haro to Adama. Before, people used to walk or use some scotch cart which would take longer. Now it is quicker” (Interview 20171101112931 translated from Afaan Oromo to English).

“The road construction is making our life easier to go to the town, access health facilities and other amenities. It used to take us long to reach a hospital. But now it is way quicker. You see, there are Bajaj’s around. Before, there was none” (Interview 20171101123146 translated from Afaan Oromo to English).

The excerpts show that road infrastructure is facilitating the social and economic fabric of communities. It takes less time to travel from one village to the other. Furthermore, the road network has generated indirect employment to Bajaj drivers because there are new routes between the communities. However, some farmers are critical of the associated benefits that came with the construction of the roads. For example, one farmer argues that:

“The tarred road from that side did not come because of the two projects; this was already here way long before the two projects. But this one, on the other side, was built by them, as an access road to their offices here, and not for community benefit. So, the roads are saving their interests” (Interview 20171102115957 translated from Afaan Oromo to English).
Some farmers criticise the shoddy workmanship of the Chinese road construction. Not being aware that the roads for Adama 2 were subcontracted to local engineers, one farmer vents his disgruntlement at the Chinese:

“The road construction did not factor in the drainage system. The farmland is eroded during the rainy season. It makes me feel sad, but the problem is that no one will listen to you. I am not powerful. The Chinese, when designing and building the road, they should have at least put some drainage system on the sideways so that water would drain properly. But that was not the case. You see the terrain is slope, this side of the road will wash away this part of the field when it is raining. This affects crops. The escarpment is widening now. It did not start like this. But year and year, it is growing bigger and bigger” (Interview 20171101115937 translated from Afaan Oromo to English).

Aside from road construction and employment creation, some community members reported that they benefited from their small business enterprises. For example, a community member supplied about 200 to 300 kgs of steel that was used in some of the civil works for Adama 2. He was awarded that contract because, according to him, he used to stay closer to the construction site and also served as a professional welder during the construction of wind turbine generation (WTGs) foundation (Interview 20171101140944 translated from Afaan Oromo to English). A retail shop owner also experienced a temporary boom in sales during the construction period of the wind farms.

“The project also brought positive results for my small business. During the construction period, I had to open a bigger restaurant and Draft House to cater for physical labourers who were working in the projects. After work, the majority of Chinese and Ethiopian workers would come here and drink beer and dance to music. That generated much profit for my business. In those three years, the business was equivalent to 10 years’ worth of business operations. I had the supermarket before, but the difference is that the operations during the time of project construction significantly increased.” (Interview 20171101112931 translated from Afaan Oromo to English).

The question of whether the communities benefited in the development of the two wind farms remains contested. For some farmers, it led to reduced travel time to access social facilities, but for other roads were created only to serve access to the turbines and not for community development. These roads raise questions of whether they should be interpreted as development or disruption (Blaser, 2004). A closer look in particular at the farmer whose plot of land was affected by poor road drainage could potentially imply that he is not in opposition to the road, but simply demanding a degree of influence on how that road was supposed to
be built in the first place, especially as it affected his farm. Other farmers near the wind farms lament that there is nothing beneficial from these wind farms, “people around here have nothing, we live close to the wind farms. Still, we are not connected to the electricity” (Interview 20171102111348 translated from Afaan Oromo to English). Some farmers argue that they did not demand those wind farms, and that all they want from the government is water, roads, health and educational facilities (Interview 20171101112931 translated from Afaan Oromo to English). This shows two divergent worldviews on development where on the one hand, the government is obsessed with infrastructure growth trajectories (Altvater, 2002) and on the other hand, citizens call for inclusive, and people-oriented interventions that do not necessarily threaten their livelihood capabilities (Bond & Mayekiso, 1996).

7.1.3 Accumulation by dispossession: land and compensation question
Access to land for the development of the two wind farms was considered one of the most challenging processes by Ethiopian government officials and TPLF-EPRDF politicians. As noted by a TPLF-EPRDF executive committee member:

“Nobody want to give you land. You have to make them understand that this is a very important project. It is necessary for the development and development is also good for them; it will alleviate them from poverty” (Interview 20170512172020).

Although land belongs to the federal state, the regional states are the custodians and land for any infrastructure project must be approved and allocated by the regional state. In this equation, farmers retain the usufruct rights. This legislative framework has created an ambiguous land tenure system at least from the perspective of the farmers “regarding the authority of state and non-state actors and the implications […] [for] land rights of ‘indigenous’ inhabitants” (Lavers, 2018, p. 463) and equally for broader land administration aspects.

Table 7.1 Land tenure system in Ethiopia

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>State Ownership</th>
<th>Ethnic Federalism</th>
<th>Neo-customary tenure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority over land</td>
<td>Federal government</td>
<td>Regional government</td>
<td>Neo-customary leaders</td>
</tr>
<tr>
<td>Territorial jurisdiction</td>
<td>National</td>
<td>Regional</td>
<td>Local</td>
</tr>
<tr>
<td>Citizenship principle</td>
<td>National</td>
<td>Ethnicity</td>
<td>Members of a clan</td>
</tr>
</tbody>
</table>

Source: Adapted and slightly modified from (Lavers, 2018)
Meanwhile, decisions over land allocation for infrastructure development are left to the Council of Ministers which is exclusively composed of the EPRDF Council representatives. As per the federal government principle of revolutionary democracy and democratic centralism, decisions reached by the EPRDF council are binding to the Congress and members of the coalition. As argued by a lecturer at AAU, land allocation for the development of the two wind farms was decided upon at the Council level, passed on to the Oromia regional state to action the directive. OPDO (now ODP) the ruling party from Oromia regional government is therefore bound by the EPRDF Council agreement as part of the ruling coalition. In turn, the regional government will extend the same directive to the zonal administration, then to the Woreda and finally to the Kebele level (Interview 20170802142852). He further argues that:

“EPRDF claims to be the vanguard party to the respective four parties. Everything is synchronised, so the opposition is nearly dissolved and there will not be any resistance to projects. Once it is decided at the level of Council, federal institutions, regions and the regional political parties should adhere to them” (Interview 20170802142852).

The excerpt reveals a top-down approach when it comes to a decision making with regards to land acquisition for infrastructure projects in Ethiopia. Farmers have the user rights and are at the bottom of the decision-making hierarchy with regards to land acquisition for infrastructure projects. It is not surprising that some of the grievances that Oromo protesters had from late 2016 stem from the land question. A closer look at this suggests a discrepancy between what government officials at the top of the hierarchy consider as citizen engagement in the development process. It appears that there is an ‘official/public narrative’ and unofficial, ‘hidden transcripts’ (Scott, 1990) with regards to land acquisition for infrastructure development in Ethiopia. While there is a clear procedure on what needs to be done to acquire land, farmers appear to be missing in the decision-making equation. In this case, farmers are seen merely as recipients of development but do not have a say regarding shaping what, how, why, when, and which ideas of the intervention. This shows that Ethiopian non-state actors, in this regard, farmers, have limited space to exercise agency because of the government’s tight control on the planning and project execution process. This comes from the authoritarian approach to development adopted by the Ethiopian government.

The procedures for land expropriation as set out in the *Payment of Compensation for Property Situated on Landholdings Expropriated for Public Purposes* are as follows (see figure 7.3). First, it involves liaising with the community leadership to pave the way for the rest of the community involvement. The second stage relates to officials from EEP together with local Woreda and Kebele administration undertaking a property inventory. This marks the commencement of consultations. The third step is the development of a compensation
proposal. The fourth stage is the actual negotiations. The negotiation process is the most challenging stage as there is a crisis of expectation where, in most cases, government officials would promise things they will not be able to fulfil merely to get agreement. For example, one farmer notes that “the government used to make promises that our communities are going to be electrified and we are going to have running water and hospitals, but still today, we have nothing” (Interview 20171101130419 translated from Afaan Oromo to English). It is also at this stage that government officials enter a marriage of convenience with the local Woreda, Kebele and community leaders who will influence fellow community members to accept the government proposals. Community leaders here are indirectly ‘forced’ to comply in order to safeguard their leadership positions. One community leader relays his role here, playing the government advocate role:

“The greatest problem I encountered is changing people’s mentality, convincing people to leave their land. People sometimes were talking about petrol bombs, stupid mentality, and they think that wind farms belong to the Chinese property. So, they were trying to show the Chinese that this is Ethiopia” (Interview 20171101100610 translated from Afaan Oromo to English).

The fifth step was reaching an agreement, followed by preparation of agreement documents. The sixth step was the acquisition and compensation followed by the last step, which is the registration of Buyers Rights (Interview 20170623163225).

**Figure 7. 3 Land acquisition process for Adama wind farms**

<table>
<thead>
<tr>
<th>Consultation commencement</th>
<th>Property description</th>
<th>Compensation proposal</th>
<th>Negotiation</th>
<th>Agreement</th>
<th>Acquisition</th>
<th>Registration of Buyers Rights</th>
</tr>
</thead>
</table>

Source: Fieldwork

**Table 7. 2 Adama wind farms affected households and compensation issues**

<table>
<thead>
<tr>
<th>ADAMA 1</th>
<th>Woreda</th>
<th>Kebele*</th>
<th>Households affected</th>
<th>Land size** affected</th>
<th>Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adama</td>
<td>-</td>
<td>12</td>
<td>2.32 Ha</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lome/Lume</td>
<td>-</td>
<td>10</td>
<td>0.6 Ha</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adama Municipal</td>
<td>-</td>
<td>105</td>
<td>14.19 Ha</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2 Woredas &amp; 1</td>
<td>-</td>
<td>127 households</td>
<td>17.101 Ha</td>
<td>2 322 819.30 Birr***</td>
</tr>
<tr>
<td></td>
<td>Municipality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ADAMA 2**
<table>
<thead>
<tr>
<th>Kebele</th>
<th>Households</th>
<th>Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adama</td>
<td>92</td>
<td>53.7 Ha</td>
</tr>
<tr>
<td>Mukiye</td>
<td>377</td>
<td>53.7 Ha</td>
</tr>
<tr>
<td>Bubisa Kusaye</td>
<td>108</td>
<td>72.30 Ha</td>
</tr>
<tr>
<td>Qachema</td>
<td>68</td>
<td>72.30 Ha</td>
</tr>
<tr>
<td>Kobolito</td>
<td>40</td>
<td>72.30 Ha</td>
</tr>
<tr>
<td>Sere-robi</td>
<td>178</td>
<td>72.30 Ha</td>
</tr>
<tr>
<td>Lome/Lume</td>
<td>174</td>
<td>72.30 Ha</td>
</tr>
<tr>
<td>Jogo-Gudedo</td>
<td>170</td>
<td>72.30 Ha</td>
</tr>
<tr>
<td>Tede-dildima</td>
<td>170</td>
<td>72.30 Ha</td>
</tr>
<tr>
<td>Mele-mele</td>
<td>170</td>
<td>72.30 Ha</td>
</tr>
</tbody>
</table>

**Source:** Fieldwork. *For Adama 1, no information is provided at the Kebele level with regards to land size affected aside from aggregate data at the Woreda level. **Land size in the case of Adama 1 shows only permanent affected land. ***There is huge difference regarding the total amount paid for compensation not only between the Ethiopian and Chinese sources but also among the Ethiopian sources. For example, according to the Chinese sources, 20 million Birr was paid for compensation for Adama 1 and 100 million Birr for Adama 2. In the context of other Ethiopian sources, data obtained from officials involved suggest 36 000 000 Birr was the total compensation for both temporary and permanent land, woodlands, and trees. This is different from the figure presented in the ESIA Report for Adama 2 which claims that the total cost of implementing the ESIA mitigation, management and monitoring was US$899 250 (which is equivalent to 16 918 400 Birr as at October 2013). Although the margin is still significant, the amount presented in the ESIA report is closer to the data presented in the table. ****This figure only shows land use for construction. Table 7.2 above shows the distribution of land required for construction of the two wind farms, the number of households that were affected and the compensation that was paid out. Importantly, while EEP, MOWIE and local administration purport that the compensation was sufficient, farmers were not happy with the rate. Official data regarding the compensation rate was hard to come by. Nonetheless, unofficial claims are awash. For example, a local administrator claims a compensation rate between 41 and 43 birr per square metre was used (Interview 20171117055623). An Adama City, Land Management and Development Agency official suggests that the compensation of land was around 225 000 to 280 000 Birr per 1 hectare in 2012-2013 (Interview 20171117055562). The Adama 2 feasibility studies report further suggest that the compensation rate was 8000 birr per hectare (HydroChina Corporation, 2013). With all these discrepancies, it becomes equally difficult to tell the exact compensation rate and respondents from EEP did not disclose the compensation rate. The fact that there are various claims between and among Ethiopian and Chinese stakeholders on
revealing the actual land and compensation statistics could be interpreted as a strategy to perhaps create confusion especially in the wake of discontentment by farmers on the compensation rate. The government further create a narrative which suggests that there were no problems related to compensation in the two wind farms, as conveyed by an EEP official:

“All the farmers who were affected were compensated, there were no problems which were recorded during the compensation period when undertaking construction” (Interview 201711150212123).

The same narrative is relayed by an E-MFA official:

“Development of wind farms, in general, does not impact in terms of compensation, relocation or resettlement. The two wind farms have a lesser environmental damage and issues of resettlement; they are limited public and civil society resistance to these” (Interview 20171027105200).

While Ethiopian government officials provide a narrative that glorifies the process, many farmers and even some of the officials from the government countered the ‘official’ narrative. As noted by one EEP official:

“We had big challenges with regards to obtaining land from the farmers. They blocked construction process. It even delayed the project schedule. There were two groups of farmers. Some accepted to leave their farmlands and give it to us before the government released the compensation. But some refused and said we would release the farms once the government had paid us the money. We finally managed to get things done after the local administration structures intervened. Local authorities convinced and gave orientation to landowners to permit construction first and be paid compensation at a later time when the payment process is ready” (Interview 20170714094901).

The excerpt shows that the farmers did not trust the government on aspects of compensation. In addition to the compensation rate being low (Interview 20170731110952), a further delay was unacceptable by the farmers. This illustration shows that people at the margins of development are not anti-development or do not want infrastructure but are not comfortable in the way development interventions are delivered. For a local administrator, “the compensation was not good; the compensation was supposed to reflect the market dynamics” (Interview 20171102111348 translated from Afaan Oromo to English).

Several farmers lamented the compensation process:
“My plot of land was taken away, but the compensation I received was not sufficient. Even though it was done for national interest and not individual benefit, but when they take such a large piece of land which my family has been surviving on, a source of livelihood for my children, then the government needs to give me something that ensures I am able to survive when I had the piece of land” (Interview 20171102124808 translated from Afaan Oromo to English).

“About 70 to 100 meters of my land was taken to develop the wind farms. The compensation was inadequate. It was painful. I agreed for the compensation. If I knew that it was that much, I would have refused the money. I attempted to resist, but I was not successful. I tried that with Kebele administration as well as people from Adama Land Management and Development Agency who were involved in measuring and assessing the land; I was not successful. The issue was not the Chinese, but the Ethiopians” (Interview 20171101115937 translated from Afaan Oromo to English).

The majority of farmers who lost their land were compensated with cash, and many of them were overwhelmed by receiving those sums of money at once. As noted by an official from the Adama City Land Management and Development Agency, Adama based farmers have a different lifestyle; they do not have the necessary skills to run small business aside from farming. It became a significant source of dissatisfaction and eventually a mental challenge for some farmers who had become jobless and had misused all the money received for compensation (Interview 20171117055562). However, some farmers, “benefited a lot because they were compensated very good and most of them bought Bajaj, and other went to buy houses in town” (Interview 20171101140944 translated from Afaan Oromo to English).

While the ‘public transcript’ claims that there was no resettlement, I came across one farmer whose house was demolished to make space for the pylon for the electricity transmission line. One local administrator rejected the official narrative and directed me to the resettled farmer. Initially, the resettled farmer did not want to talk to me because he thought I was sent by the authorities. After careful negotiations, he told me his story:

“My house was demolished. They wanted to put a pylon for a transmission line. I sold my oxen to build a second house, and it took me five years. They gave me 100 000 birr for compensation only. It took them a night to destroy this house. I was promised piece of land in town as a replacement on top of the compensation. Until now, nothing has so far been received together with the property that was inside. I am very angry, but there is nothing I can do about that. Also, they demolition the fence and the trees I used for charcoal to generate income” (Interview 201711150245153 translated from Afaan Oromo to English).
Although the farmers whose land was taken were compensated, the majority were not happy with the compensation rate, but they were not powerful enough to resist or reject the government offer. This signifies government-facilitated accumulation by dispossession. As noted by Harvey (2004, p. 64), the government facilitated accumulation by dispossession relates broadly to “temporal displacement through investment in long-term capital projects […], spatial displacements through opening up new markets, new production capacities and new resource”. This results in peasant farmers being expelled from their land and suppression of their rights in the name of development, creating new forms of domination, subordination and equally resistance by the dispossessed and displaced. Blockage of construction, stealing of the construction materials, and blockage of the roads and the farmlands during the construction of the two wind farms should, therefore, be interpreted as a demonstration of resistance by the weak against the government (Scott, 1985).

Since the government had to facilitate this accumulation by dispossession (Harvey, 2004), it is not surprising that even the public consultation process was done only to tick the boxes and not fully engage with the affected communities before the commencement of the construction of the wind farms. This raises important questions on the citizen and civil society engagement in development matters. As alluded to by two civil society organisations interviewed for this study, Ethiopia’s developmental state model closes the gap for citizen and civil society engagement in matters of national development (Interview 20170615113129; 20178025141733). The Proclamation for the Registration and Regulation of Charities and Societies 621/2009 introduced restrictions on civil society organisations in which only NGOs that received 90% of their budget from domestic sources were the ones allowed to undertake advocacy work related to human rights, democracy, equality, conflict resolution, peace and justice. Meanwhile, many domestic NGOs could not operate given their reliance on foreign donations. This eliminated the civil society voice in Ethiopia, creating a state hegemony on matters of advocacy, transparency and lobbying in development issues (Brechenmacher, 2017).

7.2 Development outcomes and impacts at the national scale

7.2.1 Skills, knowledge and technology transfer
Skills, knowledge and technology transfer is one of the domains in Africa-China infrastructure development cooperation that has been critically scrutinised (Auffray & Fu, 2015; Chen & Landry, 2018; Li, 2016). This domain is awash with claims and narratives that blame the Chinese enterprises for not properly transferring essential skills and knowledge significant for the realisation of sustainable structural transformation in Africa (Elu & Price, 2010; Patroba, 2012). Importantly, skills and technology transfer are not inherently a technical issue which is left to technical fixes; it is undoubtedly political. It is a political process which “includes crucial
issues on decision-making regarding the type of technology that is transferred, who is granted access to the decision-making process, and who benefits from the new technology” (Hensengerth, 2018, p. 499). Skills and technology transfer enter the social, economic, political and cultural environment at different levels which are governed and mediated by rules and norms. As such, various stakeholders harbour different interests with regards to skills and technology transfer.

Both Adama 1 and Adama 2 wind farms were delivered under the EPC plus financing scheme. As such, access to Chinese financing allowed the transfer of wind energy technology and construction of the wind farms, which was otherwise not going to be possible without the financing. This contractual arrangement implied that the Chinese contractor undertook project engineering, design, procurement and construction services. As a result, the technology was imported as finished capital goods from China, leaving no or limited room for an Ethiopian wind energy industry to emerge. The Ethiopian government allowed the importation of finished capital goods from China for two main reasons. First, it was the contractual arrangement of the concessional lending and, second, Ethiopia does not have a domestic wind energy sector with capabilities to engineer and design wind turbines. A high-level MOWIE official confirmed that “all the local input was pretty limited to civil works that is to access roads, foundation and probably the supply of some materials like, iron road and steel and cement” (Interview 20171011140053). Therefore, the transfer of technology created limited local supply chain linkages and opportunities for local value chain development (Chen, 2018).

Technical skills and knowledge were transferred from the Chinese contractors to the local engineers, technicians and other personnel who were involved in the construction of Adama wind farms. For Adama 1, twenty-five and for Adama 2, thirty (23 technicians and 7 engineers) EEP employees received theoretical training in China for one month and onsite training during the construction period. The theoretical training was on wind turbine generation system (tower and transformer manufacturing; wind turbine generator manufacturing; wind turbine generator transportation and installation; and wind park maintenance practices). The onsite training was mainly given to EEP officials from the National Grid Control Centre, Operations and Maintenance and Construction Departments.

Regarding the quality of the training and skills transfer, there were mixed narratives. For example, an EEP employee involved in Adama 1 argued that:

“Training was done using the translation, which had its challenges. The language became a barrier. Goldwind was sub-contracted to supply the technology, did not want

145 Some further accounts suggest that besides the 25 EEP employees who were trained in China and on-site, additional 30 engineers were further trained in China (see Chen, 2018).
to bring the Ethiopians closer to them, and they were very reserved in transferring knowledge and skills to the Ethiopian engineers. I think there was a limited transfer of skills and knowledge. Maybe they were protecting their design and company intellectual property rights, and they were not willing to disclose some of the information to Ethiopian engineers. But when I ask why they were not keeping the Ethiopian engineers close during the installation period, they would often say that it is for health and safety reasons. The reasoning was not convincing. So, technology transfer; yes, but skills and knowledge was very poor. But if you talk to the top management, they will not tell you this. They will say everything went well" (Interview 20170714094901).

A MOWIE official disagrees with the views presented above:

“In terms of skill transfer, they [Chinese] might be in a better position. One thing which is recurrent is the linguistic barrier. Some good technicians running some part of those wind technologies may not be English speakers. You always have to translate, that is a significant barrier in negotiation or later on during operation and maintenance. I do not see any unusual desire by Chinese to maintain it as secrets. We are doing business with West technologies that is quite common. So, I haven't seen any other companies doing better than what the Chinese have done, honestly speaking” (Interview 20171011140053).

The majority of the participants for this study agreed that the skills and knowledge transfer were weak in the Adama wind farms. An EEP employee involved in the day to day operations of the Adama 2 argued that while the Chinese contributed to skills and knowledge transfer to Ethiopians, it was not ‘enough’ and was not ‘perfect’ (Interview 201711150212123). Also, an Adama 1 consultant team member suggests that “the Chinese did not transfer sufficient technology for maintenance and operations, it is better to train technicians who will be internationally certified” (Interview 20170626161007).

However, an Adama 2 project consultant team member argued that the question should be on how much capacity and capability has the EEP and MOWIE acquired to the extent that they can develop their wind farms without outside technical help? He argued that “in terms of skills and knowledge, it takes a lot of time of learning and I do not think in these three projects we are ready enough” (Interview 20170811121252). This argument is consistent across some of the EEP and MOWIE employees that Ethiopia has now improved its technical knowledge and skills because of developing the Adama and Ashegoda wind farms, but that does not imply they are capable of engineering, designing and constructing a wind farm on their own. For example, a former EEP official noted that:
“Ethiopia cannot develop their own wind farms on their own because construction of such projects requires several capacities: logistics; technical; construction and operations and maintenance which Ethiopia currently do not have. EEP can: balance the plant; do grid connection; transmission lines; and civil works. They cannot install the turbine on their own without foreign supervision” (Interview 20180120178596).

Besides the structured skills and knowledge transfer experienced by EEP engineers, the three local universities which were consultants benefited in the two projects. ASTU and AAUIT students regularly visit wind farms to undertake practical lessons for wind farm planning and development. The two wind farms are now used as ‘open’ laboratories for students. At the same time, the university professors who were consultants in the two projects had no previous experience of undertaking project supervision but learnt on the job. As noted by a Chinese contractor:

“The consultants supervised everything but could not really understand. A lot of questions, a lot of negative, maybe for the project. But EXIM Bank they don’t want to accept local consultant, especially the one without experience. They used students to be consultants. How can students supervise experienced and passionate engineers? You will need to have at least a Master’s degree to be able to supervise. The students were learning from the project and did not know how to supervise. We faced big problems from the consultants from MU and ASTU-JV. Government intention is good to save money and teach them experience. Maybe if you hire a German consultant, they want about 5% of the total project cost, which is very high. But if you go for a local consultant, it will be less than maybe 1%, which makes it very cheap” (Interview 20170801090344).

Another Chinese contractor also notes that:

“The University professors had no experience of project supervision they were also learning. We had to explain to them we had to teach also. They gained skills and knowledge on how to supervise wind farms, so that is another knowledge transfer” (Interview 20171229144752).

With all the necessary technical skills, knowledge and technology transfer, EEP and MOWIE are now able to undertake wind farm planning (including conducting of ESIs), civil works, assembly of the turbines, connecting to national grid and monitoring performance, and undertaking operations and maintenance (as is the case in Adama 1). From the consultancy side, local universities involved in the two projects are now able to undertake design review and supervise the construction of wind farms. Finally, ESLSE, which transported the wind
technology equipment from China to Djibouti is now able to handle bulk and fragile cargo (Interview 20171027565623).

7.2.2 Dancing with the dragon: ‘debt trap’ diplomacy?
John Adams’ famous quote of 1826 states that “there are two ways to conquer and enslave a nation. One is by the sword. The other is by debt”. Is China conquering and enslaving Ethiopia by debt? Former US Secretary of State, Rex W. Tillerson, argues that China undertakes “predatory loan practices and corrupt deals that mire nations in debt and undercut their sovereignty, denying them their long-term, self-sustaining growth” in Africa (2018, p. 1). For Bolton (2018, p. 1) “China uses bribes, opaque agreements and the strategic use of debt to hold states in Africa captive to Beijing’s wishes and demands”. The majority of African and Chinese deny these accusations and claim that Africans are capable of making meaningful choices in their borrowing practices (Xinhua, 2018)146.

Similarly, the C-MFA officials disagree with Tillerson’s assumption claiming that the Chinese finance projects based on efficient market principles, including project bankability (Shiwei, 2018; Xinhua, 2018). However, a recent statement released by China Export and Credit Insurance Corporation laments that some of the infrastructure projects in Africa are not planned well (referring to the Addis-Djibouti railway project) resulting in the corporation experiencing huge financial loses (Ng, 2018). As a result of the combination of debt distress and inefficient project planning capabilities, the Chinese are scaling back investment and financing of infrastructure projects in Ethiopia (Aglionby, 2018).

In the meantime, while the C-EXIM Bank largely financed the development of the Adama wind farms, it is practically challenging to conclude that China is deliberately indebting Ethiopia. However, the cumulative effect of Chinese loans is contributing to Ethiopia’s High Debt Distress status. The 2017 IMF Debt Sustainability Assessment report classified Ethiopia as a ‘High Debt Distressed’ country and the “Public and Publicly Guaranteed (PPG) debt as at end-June 2017 amounted to 57% of GDP” (IMF, 2017, p. 13). The federal government’s domestic debt accounted for 23%, and the remainder is owed by state-owned enterprises (SOEs) at 22.6% (IMF, 2017). Among the highly indebted state owned enterprises is EEP (MOFED, 2014). According to the Ethiopian Prime Minister, Abiy Ahmad, EEP is in debt and is struggling to finish projects under construction and to pay back matured loans147. The two wind farms, therefore, contribute to the cumulative Chinese debt stock in Ethiopia. It is, however, important to mention that the Ethiopian government’s debt distress situation is largely accrued from

146 Some Africans believe China is indebting Africa, and at the same time, some Chinese lament that China is spending loads of money in Africa while there are over 100 million Chinese living below the poverty line. See Daniel, L. 2018. Debt colonialism: Is China trying to buyout Africa’s resources? https://www.thesouthafrican.com/news/debt-colonialism-china-africa-resources/

147 On 18 June 2018, during the live parliamentary debates, Abiy Ahmad, the Ethiopian Prime Minister acknowledges that EEP is in debt.
concessional loans which have a higher grace period and lower interest rates as compared to commercial loans.

Research estimates that Ethiopia owed $8.6 billion to the Chinese, Indian and Middle Eastern governments (see figure 7.4) (Jubilee Debt Campaign, 2018). Further research estimates that China committed $13.7 billion to Ethiopia between 2000 and 2017 (Eom, Brautigam, & Benabdallah, 2018). Although it is difficult to establish the exact figure given the discrepancies between the Jubilee Debt Campaign and CARI estimates, it is evident that China is Ethiopia’s largest bilateral creditor. However, there is no evidence to suggest that China is practising debt trap diplomacy in Ethiopia. Of all the infrastructure projects that have been financed by the Chinese in Ethiopia, I did not find any evidence to suggest that the Chinese are strategically using debt to hold Ethiopia captive of Beijing wishes and demands. Similarly, Brautigam (2019) argues that of the more than 1000 projects financed by the Chinese in Africa totalling about $143 billion, there is no evidence to conclude that China is deliberately indebting Africa.

Figure 7.4 Ethiopian government external debt as at end of June 2017

In the next section, I explore how the development of the two wind farms contributed to improvement of Ethiopia’s electricity production capacity.

7.2.3 Electricity production, distribution, access and question of affordability

According to EEP, Adama 1 was initially predicted to generate an annual electricity output of 162.7 GWh with an equivalent full load\textsuperscript{148} of 3198 hours. However, the current annual electricity output was reduced to 157.4 GWh with a full load of 3087 hours (EEP, 2017b). The reductions are normal for such big projects because of theoretical estimates during the feasibility studies.

\textsuperscript{148} Defined as the total number of hours a wind turbine is expected to operate at full load equal to the amount of electricity generated by the system.
and actual performance after the installation. For Adama 2, annual electricity output is 476.665 GWh with an equivalent average full load of 3115 hours (EEP, 2017a). Adama wind farms contribute 4.73% of Ethiopia’s electricity generation capacity. The two wind farms account for 62.97% of Ethiopia’s wind energy generation capacity, and according to HydroChina, the two wind farms provide Ethiopia with 15% of electricity during the dry season (PowerChina, 2016b) when hydropower operates below 50% (Chen, 2018).

Electricity infrastructure development is vital for a country’s economic development. Electricity powers industrial productivity, which in turn creates employment and leads to poverty reduction. Recent data showing disaggregated statistics of electricity distribution, access and utilisation at a regional or local level are difficult to come by (see table 7.3 and figure 7.5). However, there has been steady growth in terms of geographic electricity access from grid and off-grid sources, increasing from 16% in 2006 to 55% in 2016. Regardless of the geographic electricity access for both grid and off-grid sources improvement, available data suggests less than 30% of the entire population have actual access to electricity (World Bank, 2018d) and as of March 2017, only 6000 towns had access to electricity, and EEU had about 2.3 million customers (Federal Democratic Republic of Ethiopia, 2017). In the same year, the country had 149 power stations, 12 800 km of high voltage transmission lines, and 160 000 km medium and low voltage distribution lines. Regardless of the access challenges, electricity remains one of the cheapest commodities. The electricity tariff does not reflect the cost of production, but TPLF-EPRDF has a justification for this:

“In Ethiopia, power is very cheap is $0.03 per kilowatt, is not paying because we cannot raise it while the population cannot afford. Secondly, we use it also as one of the incentives to bring foreign investors in Ethiopia” (Interview 20170512172020).

Of interest is how the supply of cheap electricity is used as an incentive to attract foreign investors in Ethiopia. This suggests that the accounts I have heard from villages in Adama that they do not have access to electricity because it is supplied elsewhere may be correct. While the community members were promised that they would be the first beneficiaries regarding access to electricity, the transmission lines bypass the local communities and feed the Koka substation, which is connected to the national grid. Villages, where these wind farms are located, becomes zones of expropriation and dispossession. The Adama communities are essentially zones for electricity generation but, for use somewhere else, what McDonald (2009) terms electric capitalism. It is evident that access and availability of affordable electricity as exemplified in the Adama wind farms is not merely fixed to the technological/technical domain of planners, technicians and engineers, but the micro-politics of electricity control
(Luque-Ayala & Silver, 2016). Villagers, where these wind farms are located, have the right to
electricity, yet are not connected. A farmer noted:

“The expectation was that there was going to be electricity in our houses. And that is
why many people in this village agreed to give their plot of land away regardless of the
poor compensation. But still today, we have not yet received the electricity. We do not
have it” (Interview 20171101123146 translated from Afaan Oromo to English).

Electricity in Ethiopia is fed into the national grid which is redistributed across the regions,
zeones, Woreda, companies and industrial parks (Interview 20170819151844). Surprisingly,
the majority of the community members where the wind farms are located did not even know
where the electricity generated by Adama wind farms is sent and speculations are awash. For
example, one farmer who is also a local government employee in one of the villages noted
that:

“The electricity produced from these wind farms is fed directly to the Eastern Industrial
Zone, which is about 40 km from here. We were promised electricity and water as a
result of developing these wind farms, but still, up to today, nothing has been fulfilled
yet. Just promises, empty promises. The community did not demand the wind farms;
they were simply told that the government was going to develop wind farms here.
Although the community wanted electricity, they did not care whether it would come
from wind energy, hydro or any other, they wanted electricity. The problem of EEP is
administrated by the federal government. We are in the Oromia region now, and any
resource from the Oromia region should work here. They take electricity from here and
redistribute somewhere. That is not fair, because even here, we don’t have enough
electricity and yet they are given it away to other places, or even exporting it. How can
you export something that you have shortages in? (Interview 20171102111348
translated from Afaan Oromo to English).

These speculations do not end here. For some farmers, the electricity generated from Adama
wind farms is being used to power the recently completed Addis-Djibouti railway which passes
through Adama (Interview 201711150245153 translated from Afaan Oromo to English). For
others, the electricity is used by Adama town residents (Interview 20171101123146 translated
from Afaan Oromo to English). The official document obtained from EEP suggests that “the
main territory of electric power consumption will be Adama city” (EEP, 2017b, p. 9). No further
information is given to explain the distribution and utilisation of electricity generated by Adama
wind farms.
### Table 7. 3 Ethiopian electricity access at the household level by regional state, 2014

<table>
<thead>
<tr>
<th>Regional State</th>
<th>Access to Electricity</th>
<th>Percent</th>
<th>Household number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oromia</td>
<td>Yes 5,045,932</td>
<td>22</td>
<td>6,429,087</td>
</tr>
<tr>
<td>Amhara</td>
<td>Yes 3,635,136</td>
<td>21</td>
<td>4,589,120</td>
</tr>
<tr>
<td>Southern Nations, Nationalities, and Peoples’ Region</td>
<td>Yes 2,764,578</td>
<td>17</td>
<td>3,348,608</td>
</tr>
<tr>
<td>Tigray</td>
<td>Yes 774,199</td>
<td>27</td>
<td>1,056,900</td>
</tr>
<tr>
<td>Ethiopian Somali</td>
<td>Yes 389,066</td>
<td>11</td>
<td>436,046</td>
</tr>
<tr>
<td>Afar</td>
<td>Yes 114,981</td>
<td>27</td>
<td>157,404</td>
</tr>
<tr>
<td>Benishangul-Gumuz</td>
<td>Yes 184,814</td>
<td>11</td>
<td>207,807</td>
</tr>
<tr>
<td>Gambela</td>
<td>Yes 58,519</td>
<td>29</td>
<td>81,957</td>
</tr>
<tr>
<td>Addis Ababa (City State)</td>
<td>Yes 36,776</td>
<td>95</td>
<td>803,361</td>
</tr>
<tr>
<td>Dire Dawa (City State)</td>
<td>Yes 30,117</td>
<td>73</td>
<td>111,001</td>
</tr>
<tr>
<td>Harari</td>
<td>Yes 7,040</td>
<td>86</td>
<td>52,032</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Yes 13,041,158</strong></td>
<td><strong>25</strong></td>
<td><strong>17,273,320</strong></td>
</tr>
</tbody>
</table>


### Figure 7. 5 Existing and future electricity consumption 2014

Source: Data obtained from EEP (2014). Data from 2015 onwards is based on forecasts.

### 7.2.4 Adama wind farms: imagination and visualisation of development progress

Ethiopia is the first East African country to develop wind energy which comes with modernity visualisations discourses. There are multiple and sometimes contradictory visualisations, which inevitably shape how elites and ordinary citizens imagine the future of development and modernity—collective fantasy of societal progress (Larkin, 2013). During data collection, officials from the MOWIE continuously remarked on how beautiful the wind farms are and how in future are going to be used as local tourism sites. This entails that, on the one hand, the
wind energy infrastructure is seen by economic and political elites as sentimental objects that circulate imaginaries of development. Such invite thoughts and invoke hope of a better future. As affirmed by Luque-Ayala and Silver (2016, p. 2) “even today, access to modernity is measured by the extent to which populations have access to electricity, a fundamental way in which the politics of energy is constituted”. On the other hand, those at the bottom of the pyramid population where dispossession occurred see these wind farms as objects of livelihood disruption. The development of wind farms, therefore “release different meanings and structure politics in various ways: through the aesthetic and the sensorial, desire and promise” (Larkin, 2013, p. 327). With this visualisation and imagination comes the politicisation aspect as infrastructure transmits and mediates representations about institutions (be they local or foreign) that built them and the spatiotemporal enclaves they create. The politicisation of infrastructure becomes a mobilisation tool to console and legitimise regimes’ stay in power (Corkin, 2015). Therefore, infrastructure development is politics by other means.

7.2.5. Learning curve: from EPC to Independent Power Producers (IPP)?
The development of Adama wind farms contributes to Ethiopian government policy learning in terms of best practices for delivering renewable energy projects in the country. The majority of officials from the MOWIE and EEP consider that the financing and development of Adama wind farms using an EPC modality was a learning curve which allowed the government to create an avenue to evaluate the best possible mechanism through which future wind and solar power plants are going to be delivered. Two officials from MOWIE noted that:

“After the experiences in Adamas, I think the government is going to push in future new renewables like solar and wind power on to the plates of private developers, so that is also a policy decision to facilitate that. We had operation management contractors with the EPC contractors going for some years but going forward; we are introducing the private sector both as operators and owners of these installations. So I think that experience helped the government in making decisions, eventually the government more or less to concentrate on hydropower. It has the internal capacity whereas they do not for the renewables, so they let the private sectors do that, they will take care of both operation maintenance and as well as investments (Interview 20171011140053).

“Things have changed, our policy has relatively changed 10 years back; there is no competition. Now there are a lot of companies, American, European companies; they want to have wind farms with Independent Power Producers. When you float bids, a lot of competition, last time 65 of them applied. Chinese now, in the olden days, they are not interested to do an IPP modality, now they want to have IPP, whatever the
government ask, whatever condition, IPP, even sometimes with birr (Interview 20170609111018).

The learning aspect of the two projects was limited to not only the Ethiopian side but also the Chinese. For example, a HydroChina employee claimed that:

“Yes, it was our first project of this nature and we did not know some of the things, like the policy. We had issues on transportation from Djibouti to the project site. This is the first wind farm in East Africa, and also all the equipment and finance and technology come from China. It makes the project very unique” (Interview 20171229144752).

Aside from the Chinese contractor getting a firm grip on the policy and project implementation and operation experience in Ethiopia, some of the Chinese engineers who participated in the projects also gained practical experience, as noted by an engineer from HydroChina that “now I am an engineer before I was an assistant engineer” (Interview 20171031151356).

Although it is challenging to correlate whether the experiences from Adama and perhaps Ashegoda contributes to the Ethiopian government policy change in renewable energy project delivery, emerging evidence from elsewhere suggest that is the case. On 19 December 2017, “the legal provisions regarding Power Purchase Agreement (PPA) and IPPs come into practical applicability when the first PPA was signed between Corbetti Geothermal PLC and EEP for the Corbetti geothermal power project” (Kifle, 2018, p. 1). Further to this, the amendment of EEP establishment by Council of Ministers Regulation No. 381/2016 legally allowed EEP “to purchase electric power on transmission lines above 66kilo volt level” (Kifle, 2018, p. 1). This indeed created a platform for the entering into force of IPP and PPA law. To a reasonable extent, the Adama wind farms together with the Ashegoda experiences in delivering such kind of projects contributed immensely towards renewable energy policy transformation in Ethiopia as already shown by several regulatory provisions in the sector.

7.3 Chapter summary
This chapter examined the development outcomes and impacts of Ethiopian and Chinese financed and developed Adama wind farms. The Adama wind farms are the first Chinese overseas wind energy projects in Africa developed using a combination of Chinese technology and international standards. The primary objective of the Adama wind farms was to stabilise the grid by adding wind as an alternative source of electricity generation. At least, the source diversification objective in electricity generation by the Ethiopian government was achieved. It remains, however, difficult to quantitatively establish from an socio-economic perspective, the disaggregated effects of electricity generated from Adama since the electricity generated is fed directly into the national grid. Nonetheless, the local outcomes and development impacts of Adama wind farms are complex and are intertwined across and within various social
lifeworlds. They range from economic, social, technical and political impacts. Importantly, to a greater extent, the local outcomes and impacts of Adama wind farms are tied to the Ethiopian developmental state’s regulatory and governance structure, and a lesser extent to the conditioning effect of Chinese stakeholders.

This chapter, therefore, answered the third research question on the development outcomes and impacts of the Chinese majority financed and developed Adama wind farms. Several aspects emerge with regards to the Ethiopian government exercise of agency when dealing with not only the Chinese but also with local stakeholders. First, the development of Adama wind energy infrastructure contributed to local economic development\(^{149}\) (Guta, Damte, & Ferede, 2015) through the creation of roads and temporary employment opportunities for the locals. Because of strict labour laws, all unskilled jobs were undertaken by locals while Chinese contractors were only allowed to bring expatriates in areas where the Ethiopian government did not have the local skills and capacity.

Second, the supply of some materials and equipment for civil works in the projects allowed local industries to benefit. While the local content aspect could have been improved, it was not possible because of the absence of local companies involved in wind energy in Ethiopia. Furthermore, the EPC arrangement meant that most of the capital goods and other supporting equipment were sourced from China. This limited the development of local industrial capability in the sector. Third, the Ethiopian government did not allow the Chinese to be involved in land expropriation for project development. For that, the Ethiopian government bears the responsibility for all compensation and the resultant disruption of livelihoods of the affected communities.

Fourth, the Ethiopian government played a pivotal role in attracting skills, knowledge and technology from China mainly through the use of regulatory government policies and stipulation and enforcement of various conditionalities during the contract negotiations. However, the transfer of knowledge and skills in the Adama wind farms “was not systematic and mostly occurred on an individual level, i.e. university professors and EEP engineers” (Chen, 2018, p. 7). Also, the ability of the Ethiopian government to convince C-EXIM Bank to accept the use of local, inexperienced university professors as project consultants shows two things: the negotiating capability and agential dimensions of the Ethiopian government and; the flexibility of the Chinese stakeholders to give in to the demands of the Ethiopian government.

\(^{149}\) Seen within the lenses of consumption and production (forward) linkages. Consumption linkages relates to the personal income generated by both Ethiopians and foreigners in the two projects and how it was productively spent domestically. The forward linkages relate broadly the productive uses of electricity generated by the wind farms.
Fifth, the Ethiopian government chose to go for a concessional instead of a commercial loan agreement. Concessional loans have below-market interest and grace period. This cushions the country’s debts status. That said, Ethiopian debts are “mainly in the form of project loans, largely concessional […] at below-market rates with a roughly 30% grant element from EXIM Bank of China” (IMF, 2017, pp. 4–5). This could be interpreted as a predetermined move by the Ethiopian government “to avoid further deterioration in debt sustainability” (IMF, 2017, p. 5). This shows how smart the Ethiopian government is in dealing with the Chinese to avoid the so-called debt trap diplomacy.

Appendix 7. 1 Employment statistics for Adama 1 for 01 to 31 August 2011

<table>
<thead>
<tr>
<th>Unit</th>
<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Transportation</th>
<th>Supplementary</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eth</td>
<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
</tr>
<tr>
<td>JV PMO*</td>
<td>-</td>
<td>-31</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>21**</td>
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<td>Equipment suppliers</td>
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<td>-</td>
<td>15</td>
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<tr>
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<td>38</td>
<td>435</td>
<td>-</td>
<td>-</td>
<td>84</td>
</tr>
<tr>
<td>Electrical installation</td>
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<td>25</td>
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<td>-</td>
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<td>Total</td>
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<td>121</td>
<td>435</td>
<td>-</td>
<td>38</td>
<td>107</td>
</tr>
</tbody>
</table>

Source: Adama 1 employment statistics Report. NB: Eth—Ethiopia and Chi—Chinese. * Joint Venture Project Management Office (from onwards hereby JV PMO) only for Chinese contractors. For Ethiopia, these are already EEP employees, so that is why they have been coded zero. ** These are security guards.

Appendix 7. 2 Employment statistics for Adama 1 for 01 to 30 September 2011

<table>
<thead>
<tr>
<th>Unit</th>
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<th>Design &amp; Construction</th>
<th>Installation</th>
<th>Haulage</th>
<th>Assistant work</th>
<th>Sub-total</th>
</tr>
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<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
</tr>
<tr>
<td>JV PMO</td>
<td>-</td>
<td>31</td>
<td>-</td>
<td>-</td>
<td>21</td>
<td>-</td>
</tr>
<tr>
<td>Civil works</td>
<td>37</td>
<td>54</td>
<td>506</td>
<td>-</td>
<td>84</td>
<td>-</td>
</tr>
<tr>
<td>E&amp;M I&amp;T work*</td>
<td>25</td>
<td>-</td>
<td>38</td>
<td>-</td>
<td>3</td>
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<td>Suppliers &amp; Designer</td>
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<td>Total</td>
<td>54</td>
<td>140</td>
<td>506</td>
<td>22</td>
<td>38</td>
<td>108</td>
</tr>
</tbody>
</table>

Source: Adama 1 employment statistics Report. * Electrical and Mechanical and Installation and Transmission work
Appendix 7. 3 Employment statistics for Adama 1 for 01 to 30 October 2011

<table>
<thead>
<tr>
<th>Unit</th>
<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Haulage</th>
<th>Supplementary</th>
<th>Sub-total</th>
</tr>
</thead>
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<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
</tr>
<tr>
<td>JV PMO</td>
<td>-</td>
<td>31</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Suppliers &amp; Designer</td>
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<td>22</td>
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<td>105</td>
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<td>Civil works</td>
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<td>54</td>
<td>552</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E&amp;M I&amp;T work</td>
<td>-</td>
<td>37</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
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<td>Total</td>
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<td>552</td>
<td>22</td>
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<td>105</td>
</tr>
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</table>

Source: Adama 1 employment statistics Report.

Appendix 7. 4 Employment statistics for Adama 1 for 01 to 30 November 2011

<table>
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<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Haulage</th>
<th>Supplementary</th>
<th>Sub-total</th>
</tr>
</thead>
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<td>Eth</td>
<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
</tr>
<tr>
<td>JV PMO</td>
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<td>31</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Suppliers &amp; Designer</td>
<td>11</td>
<td>52</td>
<td>-</td>
<td>22</td>
<td>-</td>
<td>105</td>
</tr>
<tr>
<td>Civil works</td>
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<td>447</td>
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<td>-</td>
<td>-</td>
</tr>
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<td>E&amp;M I&amp;T work</td>
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<td>50</td>
<td>-</td>
<td>-</td>
<td>175</td>
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<td>Total</td>
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<td>191</td>
<td>447</td>
<td>22</td>
<td>175</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: Adama 1 employment statistics Report.

Appendix 7. 5 Employment statistics for Adama 1 for 01 to 31 December 2011

<table>
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<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Haulage</th>
<th>Supplementary</th>
<th>Sub-total</th>
</tr>
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<td>Eth</td>
<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
</tr>
<tr>
<td>JV PMO</td>
<td>-</td>
<td>33</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Suppliers &amp; Designer</td>
<td>11</td>
<td>47</td>
<td>-</td>
<td>26</td>
<td>-</td>
<td>105</td>
</tr>
<tr>
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<td>37</td>
<td>243</td>
<td>-</td>
<td>-</td>
<td>51</td>
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208
### Appendix 7. 6 Employment statistics for Adama 1 for 01 to 31 January 2012

<table>
<thead>
<tr>
<th>Unit</th>
<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Haulage</th>
<th>Supplementary</th>
<th>Sub-total</th>
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<td>Eth Chi</td>
</tr>
<tr>
<td>JV PMO</td>
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<td>- 23(4)</td>
<td>-</td>
<td>-</td>
<td>- 22 (8)</td>
<td>-</td>
</tr>
<tr>
<td>Suppliers &amp; Designer</td>
<td>7 37(5)</td>
<td>- -</td>
<td>- 105</td>
<td>36</td>
<td>4(1)</td>
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<tr>
<td>Civil works</td>
<td>23 26</td>
<td>200(10)</td>
<td>-</td>
<td>-</td>
<td>- 55(4)</td>
<td>-</td>
</tr>
<tr>
<td>E&amp;M I&amp;T work</td>
<td>- 35(2)</td>
<td>- 140</td>
<td>33 8</td>
<td>1</td>
<td>40(7)</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>30 131</td>
<td>200(10)</td>
<td>23(4)</td>
<td>140</td>
<td>113 37</td>
<td>121(20)</td>
</tr>
</tbody>
</table>

Source: Adama 1 employment statistics Report. **NB:** The figure in the bracket is for female workers.

### Appendix 7. 7 Employment statistics for Adama 1 for 01 to 29 February 2012

<table>
<thead>
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<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Haulage</th>
<th>Supplementary</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Eth Chi</td>
<td>Eth Chi</td>
<td>Eth Chi</td>
<td>Eth Chi</td>
</tr>
<tr>
<td>JV PMO</td>
<td>- 33 (7)</td>
<td>- -</td>
<td>-</td>
<td>-</td>
<td>- 22 (8)</td>
<td>-</td>
</tr>
<tr>
<td>Suppliers &amp; Designer</td>
<td>7 37(5)</td>
<td>- 24(4)</td>
<td>- 105</td>
<td>34</td>
<td>8(2)</td>
<td></td>
</tr>
<tr>
<td>Civil works</td>
<td>23 31</td>
<td>200(15)</td>
<td>-</td>
<td>-</td>
<td>- 55(4)</td>
<td>-</td>
</tr>
<tr>
<td>E&amp;M I&amp;T work</td>
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<td>- 157</td>
<td>32 8</td>
<td>1</td>
<td>29(7)</td>
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<td>Total</td>
<td>30 142(14)</td>
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<td>157</td>
<td>32 113</td>
<td>114(21)</td>
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</table>

Source: Adama 1 employment statistics Report. **NB:** The figure in the bracket is for female workers.
### Appendix 7. 8 Employment statistics for Adama 1 for 01 to 31 March 2012

<table>
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<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Haulage</th>
<th>Supplementary</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
</tr>
<tr>
<td>JV PMO</td>
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<td>33 (7)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Suppliers &amp; Designer</td>
<td>-</td>
<td>39(5)</td>
<td>25(4)</td>
<td>-</td>
<td>26</td>
<td>9(2)</td>
</tr>
<tr>
<td>Civil works</td>
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<td>50(2)</td>
<td>-</td>
<td>199</td>
<td>32</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
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<td>155(14)</td>
<td>200(15)</td>
<td>25(4)</td>
<td>199</td>
<td>32</td>
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</tbody>
</table>

Source: Adama 1 employment statistics Report. **NB:** The figure in the bracket is for female workers.

### Appendix 7. 9 Employment statistics for Adama 1 for 1 April to 5 May 2012

<table>
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<th>Unit</th>
<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Haulage</th>
<th>Supplementary</th>
<th>Sub-total</th>
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<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
<td>Eth</td>
<td>Chi</td>
</tr>
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<td>JV PMO</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Suppliers &amp; Designer</td>
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<td>25(4)</td>
<td>-</td>
<td>26</td>
<td>6(2)</td>
</tr>
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<td>Civil works</td>
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<td>30</td>
<td>177(15)</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>E&amp;M I&amp;T work</td>
<td>-</td>
<td>34</td>
<td>-</td>
<td>173</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>133(11)</td>
<td>177(15)</td>
<td>25(4)</td>
<td>173</td>
<td>30</td>
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</table>

Source: Adama 1 employment statistics Report. **NB:** The figure in the bracket is for female workers.

### Appendix 7. 10 Employment statistics for Adama 1 for 10 June to 7 July 2012

<table>
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<tr>
<th>Unit</th>
<th>Management</th>
<th>On-site construction</th>
<th>Installation</th>
<th>Haulage</th>
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<td>Chi</td>
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<td>Chi</td>
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<td>JV PMO</td>
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</table>

Source: Adama 1 employment statistics Report. **NB:** The figure in the bracket is for female workers.
### Suppliers & Designer

<table>
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<td>-</td>
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<td>Suppliers &amp; Designer</td>
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<td>-</td>
<td>4(2)</td>
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<td>15(2)</td>
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<td>Civil works</td>
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<td>-</td>
<td>-</td>
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<td>164(15)</td>
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</table>

Source: Adama 1 employment statistics Report. **NB:** The figure in the bracket is for female workers.
CHAPTER EIGHT: CONCLUSIONS

8.0 Introduction
This thesis has examined the role of African agency in shaping the engagement modalities and negotiation processes between Ethiopian and Chinese stakeholders in the financing and developing of Adama 1 and Adama 2 wind energy infrastructure. I have presented a holistic analysis of African agency, thereby challenging the dominant paradigm that presuppose the dominance of China in its engagement with Africans. I further critiqued the narrow interpretation of African agency studied purely from the perspective of brokering of relations with China. I have demonstrated that the exercise of African agency extends to negotiations and engagement modalities during the project implementation, management and operation stages.

In seeking to understand African agency, the thesis has drawn on international relations and social theories that conceptualise agency as the ability of social-political actors to define and influence their choices and actions when engaging with other actors. The hybrid theoretical approaches mentioned in chapter one and discussed in detail in chapter two underscore the multiplicity of actors and related interests, values, and preferences. This is achieved using resources and repertoires as both material and discursive forms of power. However, as shown in chapter two, these actors are embedded in the environments in which they operate, and as such, a state-society relations approach was also used to understand how Ethiopian actors interact amongst themselves and with external stakeholders. An authoritarian developmental state approach discussed in chapter four was then used to understand how the Ethiopian state functioned domestically and how external actors were expected to comply with the informal and formal rules of the game.

Informed by the literature gaps identified in chapter one and guided by the theoretical approaches discussed in chapter two, the following main research question was proposed:

- How did the Ethiopian actors exercise agency when interacting with the Chinese in the case of Adama 1 and Adama 2 wind energy infrastructure financing and development?

To systematically answer this main research question, three inter-related sub-questions were formulated:

1. What were the drivers and motivations which contributed to Ethiopian and Chinese actors financing and developing Adama 1 and Adama 2 wind energy infrastructure in Ethiopia?
2. What were the processes and modalities of engagement, and how did the Ethiopian government broker and negotiate with China?
3. What are the engagement outcomes and local development implications of the two wind farms, and to what extent did the host country’s socio-political and economic variables determined these outcomes?

Applying a qualitative case study approach embedded in critical realism and interpretive epistemological paradigms, discussed in detail in chapter three, the main and sub-questions were all explored in the case studies of Adama 1 and Adama 2 wind energy infrastructure. One hundred and sixteen respondents were interviewed in this study. The participants were drawn from the AUC, AfDB, British Embassy in Addis Ababa, Ethiopian federal state institutions (MOWIE, MOFEC, MEFCC, ESLSE, MFA, EEU, EEP, and EIC), Ethiopian regional state institutions (Oromia and Tigray state), Woreda level administrations (Adama and Lome), farmers and community members at the Kebele level (Jogo Gudedo, Bubisa Kusaye, Mele-mele, Tede-dildima, Adama, Qachema, Mukiyey, Kobolito, and Sire-robi), non-governmental organisations (Oxfam International—Africa-China Dialogue Platform and Forum for Environment), media institutions (Addis Fortune English edition, The Reporter English edition, and Xinhua News Agency English edition), and officials from academic institutions (AAU, ASTU, MU, and EFRSSI). Chinese participants were drawn from Chinese government institutions (MFA, Chinese Embassy in Addis Ababa, Chinese Economic and Commercial counsellor’s office in Addis Ababa), Chinese state, semi-state and private enterprises (HydroChina, CGCOC-Ethiopia and Goldwind), officials from academic institutions (University of St Andrews & Renmin University of China, and Zhejiang Normal University).

Using document review and qualitative interview data, chapter four discussed and analysed Ethiopian socio-political and economic conditions traced from 1991, and how they laid the foundations for cooperation with China. The chapter provided the background context necessary to understanding the engagement patterns and dynamics in the context of the wind energy sector. Chapter five responded to the first sub-question on the drivers and motivations for the Ethiopian government and Chinese state and semi-state enterprises to finance and develop the Adama wind farms. Using data collected predominantly through interviews with state and non-state officials from Ethiopia and China, mentioned in chapter three, the chapter examined the factors which led to the Ethiopian government developing wind energy, in particular, the political and economic choices made by the Ethiopian government in deciding to award the contract to Chinese enterprises. Chapter six responded to the second sub-research question and carefully applied a process-tracing approach (discussed in detail in chapter three) to establish and reconstruct the engagement modalities and negotiation processes along the projects’ lifecycles. In this chapter, I relied on data collected from qualitative interviews with officials involved in the projects and included a review of technical
documents. Chapter seven critically examined the engagement outcomes and local development implications of the two wind farms. Again, discussions here are drawn from qualitative interviews with officials who were involved in the projects and with local communities where these wind farms are located.

This chapter concludes the thesis and is structured as follows. Section 8.1 discusses the key findings of this study, juxtaposed with existing literature. Section 8.2 discusses the important observations, while section 8.3 discusses the original contribution and broader implications of this research in the study of Africa-China relations. Section 8.4 reflects on the methodological limitations of the study. Policy recommendations are offered in section 8.5, followed by section 8.6, which discusses the directions for future research. Section 8.7 concludes the chapter.

8.1 Key research findings

8.1.1 Finding 1: Drivers and motivations

Despite volumes of research that have explored the drivers and motivations of Chinese engagement with African countries, the majority of studies have focused on the Chinese side of the argument (see Kaplinsky & Messner, 2008; Kaplinsky & Morris, 2009). While I do not dismiss the role of the Chinese, I argue that it is misplaced to suggest that China alone drives engagement with African countries. Engagement between Africa and China is a two-way process, where in this case, which may not be untypical, African actors play an essential role in forging relations with the Chinese. In this context, this study sought to understand the drivers and motivations of Ethiopian and Chinese actors in the financing and development of Adama wind farms. I contextualise the drivers and motivations of Chinese actors as a response to Ethiopian initiations—and not the other way around. The central reason why I formulated the first sub-question that way was a response to the absence of studies that empirically examine the drivers and motivations of Ethiopians to develop wind energy. I was also particularly interested in understanding why the Chinese were keenly involved in developing wind energy in Ethiopia; a practice not generally associated with the Chinese enterprises in Africa.

The thesis demonstrates that there were multiple drivers and motivations for Ethiopian and Chinese stakeholders to finance and develop the two wind farms. For the Ethiopians, the main drivers were a bricolage of technological (technology maturity, costs and efficiency), global renewable energy policy orientation, and natural factors (availability of wind resource). These findings are consistent with other studies (see Asress, Simonovic, Komarov, & Stupar, 2013; Demirtas, 2013; Gaddada & Kodicherla, 2016; van Kooten & Timilsina, 2009). At the same time, wind energy was chosen instead of solar or geothermal for two main reasons: (i) the time taken to develop a wind farm, and (ii) the social acceptability factor, notably the land-use-change aspect. As such, wind farms were seen to be fast-track projects realisable within a
short time, and with a minimum requirement for permanent land. As argued “approximately 90% of the land is not occupied by wind power equipment” (UNCCD & IRENA, 2017, p. 15) and that reduces potential land use change conflicts. From the Chinese side, the study established that the primary driver for Chinese involvement in the financing and developing Adama wind farms was the need to establish and access the new wind energy market in Ethiopia and potentially the wider East African region. This was, however, made possible by the presence of a supportive (financial, informational, and political) Chinese government focused on the internationalisation of its enterprises.

In seeking to understand the motivations for Ethiopians in financing and developing wind farms, the study discovered that the EPRDF’s obsession with the development of infrastructure including electricity generation facilities created the motive to develop Adama wind farms. As such, the study establishes that the desire to diversify electricity generation, moving away from over-reliance with hydropower, was the primary motivation. This resulted from previous painful experiences of droughts, which had catastrophic impacts on energy security. At the same time, the study found that the Ethiopian government was also motivated by the need to not only create new electricity generation plants but also to regionally distribute them as part of the ruling EPRDF’s political settlement. However, this regional distribution of electricity generation plants was also dependent on the availability of energy resources (wind). Also, the study found that the Ethiopian government was looking to export electricity to neighbouring countries to generate foreign currency.

The electricity export motive was accompanied by geopolitical calculations by the Ethiopian government to influence and perhaps clandestinely control the East Africa Power Pool. Also, the Ethiopian government was motivated to develop the wind farms for learning and experimentation purposes. This is in line with Meles’ ideological orientation of understanding development as acquisition and accumulation of technology vital for social change and structural transformation (Zenawi, 2012). Exploring these motivations shed light on how the Ethiopian government would, in turn, broker and structure the deals when engaging with the Chinese. The study also interrogated the motivations for Chinese involvement in Ethiopia’s wind energy. Request by the Ethiopian government was the principal motivation. However, this ‘request’ was acceptable to the Chinese because of other complementary factors such as the favourable investment climate in Ethiopia, geopolitical and economic calculations by the Chinese enterprises and the central government. This study has therefore provided new empirically grounded evidence on understanding the drivers and motivations of both Ethiopian and Chinese actors in the financing and developing Adama wind farms.
The study also found that there is a scarcity of empirically grounded observations addressing why African governments award infrastructure development contracts to the Chinese. The few existing studies that interrogate decision making patterns of African governments in awarding infrastructure contracts to the Chinese are inconclusive (see Centre for Chinese Studies, 2006; Gutman & Zhang, 2015). To bridge this gap, this study establishes that there were multiple political and commercial calculations made by the Ethiopian government in deciding to award the contract to the Chinese enterprises. Commercially oriented reasons as discussed and analysed in chapter five were, (i) financial resource availability, (ii) quick capital disbursement, and (iii) acceptable total project costs. These were, however, paralleled with political calculations namely: (i) the Chinese non-conditional approach to the host country’s political makeup and governance; (ii) quick project completion rates with a good track record of previous infrastructure projects; (iii) development finance division of labour between the traditional and emerging donors; and (iv) the somewhat similar political makeup and economic ideology (authoritarian developmental state). A finely grained analysis suggests that political calculations had a lesser effect on the Ethiopian government’s decision to contract the Chinese. This nonetheless challenges the assertion that political factors greatly influence Chinese infrastructure development in Africa. At the same time, the commercial motives narrative on its own is inadequate and ill-equipped to account for the non-technical based decision-making patterns.

8.1.2 Finding 2: Engagement modalities and negotiation processes
Engagement modalities and negotiation processes between African and Chinese actors in the financing and development of infrastructure have been conceived as a black box, perhaps because of the secrecy involved in these deals. Where research has been undertaken, the majority has focused on examining the ‘brokering’ of the engagement part without delving deeper into tracing and providing empirically grounded observations on how the negotiations play out (see Carmody & Kragelund, 2016; Phillips, 2018; Soulé-Kohndou, 2019). This study builds on this foundation by employing a process tracing methodological approach which tracked and analysed the engagement modalities and negotiation processes of the two wind farms through the projects’ life cycles. The study establishes that Ethiopians were able to influence their interactions with the Chinese (see table 8.1) by: (i) having embedded autonomy on shaping the policy space and planning of the wind farms as traced from the GTP I and II; (ii) brokering the engagements traced from 2006 onwards; (iii) initiating the formal negotiations; (iv) influencing the terms and conditions (financing and project delivery scheme) of the deals; (v) directing and determining allocation of land and compensation processes for the affected farmers; (vi) setting up joint project management offices, and use of local, inexperienced universities as consultants, something highly unusual in mega infrastructure
projects of this magnitude; (vii) influencing the labour aspects of the projects through the regulations; and (viii) influencing the skills, technology transfer and local linkage patterns and dynamics. By examining these indicators (see table 8.1), I opened two black boxes: (i) the terms and conditions of the deals, and (ii) the actors involved in the project’s life cycles.

Table 8.1 Reading Ethiopian agency

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>Autonomy</th>
<th>Influence</th>
<th>Ownership</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy space</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
</tr>
<tr>
<td>Brokering the engagement</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
</tr>
<tr>
<td>Initiating the formal negotiations</td>
<td>Proactive</td>
<td>Precautionary</td>
<td>Pro-active</td>
<td>Proactive</td>
</tr>
<tr>
<td>Financial agreement</td>
<td>Re-active</td>
<td>Precautionary</td>
<td>Re-active</td>
<td>Reactive</td>
</tr>
<tr>
<td>Feasibility studies</td>
<td>Reactive</td>
<td>Precautionary</td>
<td>Reactive</td>
<td>Reactive</td>
</tr>
<tr>
<td>ESIA studies</td>
<td>Reactive</td>
<td>Precautionary</td>
<td>Reactive</td>
<td>Reactive</td>
</tr>
<tr>
<td>Land and compensation issues</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
</tr>
<tr>
<td>Project implementation and management</td>
<td>Reactive</td>
<td>Precautionary</td>
<td>Precautionary</td>
<td>Proactive</td>
</tr>
<tr>
<td>Skills and technology transfer</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
</tr>
<tr>
<td>Linkages</td>
<td>Proactive</td>
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<td>Proactive</td>
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<tr>
<td>Labour aspects</td>
<td>Proactive</td>
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<tr>
<td>Outcome</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Proactive</td>
<td>Reactive</td>
</tr>
</tbody>
</table>

The table above shows the areas in which the Ethiopian government was able to exercise agency when dealing with the Chinese in the wind farms. This conclusion is carefully arrived at upon evaluation of engagement modalities presentation in chapters 5, 6 and 7 of the study.

Several observations were made. First, the Ethiopian government was able to influence policy formulation and translation in the development of wind energy. In the GTP 1, 200 MW was targeted for development from wind energy and by the end of 2015, 324 MW had been developed, 124 MW more than initially planned. The Ethiopian government set the priorities for these projects, which demonstrates “ownership and degree of control” (Fraser & Whitfield, 2008, p. 3). I consider this as a proactive element of the government in having embedded autonomy over policy formulation and translation. Second, it was the Ethiopian government’s initiative to develop the two wind farms. This explains why the Ethiopian government then brokered the deals with the Chinese and did not end there. Ethiopians used several institutions to deal with the Chinese including but not limited to EEP, MOWIE, EEA and MOFEC. These
institutional fixes created “enclaves” (Mohan & Lampert, 2013, p. 99) that are somehow accountable to the political elites (Corkin, 2015). Furthermore, three project management offices, one for EEP, one for consultants and one for the contractors were created to synchronise and create synergies for skills and technical knowledge acquisition.

Third, the Ethiopian government was able to influence the terms and conditions of the deals, including the choice for using EPC plus financing arrangement. The government knew that it could not deliver the project under say IPP, PPP or full government funding because of finance, technical skills and capacity limitations. At the same time, to avoid donor commitment uncertainties and regulatory compliance challenges, the Ethiopian government used the same contractors (HydroChina and CGCOC) and the same financier (C-EXIM bank) on two projects. Furthermore, the consultancy contracts for the two projects were awarded to local universities which had no experience at all in managing such mega projects, a practice unheard-of in the sector. A significant observation is that the Ethiopian government owns all the projects, and in terms of operations and maintenance, Adama 1 is now entirely operated by EEP while Adama 2 is still under joint operation with the contractor. Importantly, the government created a short operations and maintenance contract, which was separate from the EPC contract. The operations and maintenance period for the contractor in both cases was limited to allow local engineers and technicians to learn on the job, and then take over once the contractor had left.

Fourth, local content and procurement were enforced only in circumstances where there was sufficient local capacity. The Ethiopian government rejected the use of Sinotrans, a Chinese state-owned enterprise as a sea transporter for Adama 2 wind technology equipment giving the job to ESLSE. This was not the case for Adama 1. By the same account, all land and compensation issues were handled by the Ethiopian government, saving the Chinese from dealing with the local communities. Fifth and finally, Ethiopian non-state actors, farmers and community members also demonstrated agency when dealing with their government. Due to delays by the government in paying the compensation for land loss, farmers demonstrated and even stole some of the construction equipment. Stealing was therefore used as a weapon of the weak (Scott, 1985).

8.1.3 Finding 3: Engagement outcomes and local development implications
Research on Africa-China engagement is polarised between those who see China as good and those who view it as bad. Good in the sense that China offers Africa favourable infrastructure development deals. Bad in the sense that China is perceived as not being so different from the Western exploitative practices which over time creates a new form of
dependence thereby continuously locking Africans in poverty and underdevelopment trap. I have gone beyond this dichotomous view in this thesis by exploring how the host country’s socio-political and economic factors influence the engagement outcomes and local development impacts when engaging the Chinese. As such, a host country’s regulatory and governance structure angle was brought in as a point of departure, an approach less familiar in research in this area.

The thesis has shown that the Ethiopian developmental state practices influenced the engagement outcomes and local development impacts of the two wind farms using regulatory, governance and contractual terms and conditions which ensured the government retained control. The government created a development-oriented national vision, the GTP, where targets, tactics and strategies are set, deliberated and defined by the EPRDF-led Council of Ministers. As such, new electricity generation plants, employment creation, technology, skills and technical know-how acquisition, and consumption and production linkages were the main outcomes of Adama wind farms. However, these outcomes had implications, including aspects of debt accumulation and rural community livelihood disruption as underprivileged poor smallholder farmers lost pieces of land. As observed elsewhere, African governments “particularly the executive, in many cases […] is comprised of a political elite whose reality is very much removed from the rest of the population. This results in […] approaches that are not beneficial to the more impoverished sectors of the population” (Centre for Chinese Studies, 2007, p. 179).

The study also found that the development of Adama wind farms contributed to local economic development. Local farmers and unskilled youth participated as physical labourers during the construction period and some as security guards even to date. Regardless of the temporality of these jobs, people received personal income, which undoubtedly had positive feedback in the rural communities. At the same time, the construction of new roads and repair of old roads improved transportation services. Several farmers bought Bajaj’s which are now plying the routes from these rural communities to Adama city and Mojo growth point.

The study also found that some local contractors such as Teclabrahane Ambaye Construction were used for civil works. Also, some of the raw materials used for the construction of the two wind farms such as cement and steel, among others were sourced locally. Regardless of the rigidity of the EPC contract, where all wind energy technology and supporting equipment were sourced from China, the Ethiopian government managed to influence some of the contractual terms and conditions. These included robust negotiations which resulted in overall project cost

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reductions, the appointment of local universities as consultants, use of ESLSE (in the case of Adama 2) as a shipping company, and favourable operations and management contracts with the contractors. Building on this, the Ethiopian government also specifically requested concessional loans for the two projects. Use of concessional loans was specifically “to avoid further deterioration in debt sustainability” (IMF, 2017, p. 5). It also suggests two things: (i) the strategic exercise of agency by the Ethiopian government; and also (ii) the flexibility of the Chinese in giving in to some of the demands made by the Ethiopian government.

Since the development of the two wind farms hinged on the need to acquire skills and accumulate new technology by the Ethiopian government, informal and formal regulatory channels were used to ensure that such objectives were fulfilled. This included the application of strict labour laws, handling of all land and compensation aspects by the government, and above all contractual stipulations of skills transfer to EEP staff. Although skills and knowledge transfer in the two projects have been celebrated at the top management level of both the Ethiopian government and the contractor, low to middle-level EEP engineers were not satisfied with how the transfer was conducted. Some argue that the transfer of skills and knowledge was not systematic, and was fraught with language-related challenges, as most of the training on the job was delivered through translation (Interview 20170714094901). Some, however, argue that Ethiopia is now in a better position in terms of designing and delivering wind farms as compared to pre-2015 (Interview 201710111140053). Nonetheless, the accounts converge on the inadequacy of the skills and knowledge transfer.

8.2 Important observations about the exercising of Ethiopian agency
There are four important observations. The first observation is that for Ethiopians, history matters substantially when engaging with foreign powers. The defeat of the Italians at Adowa in 1896 is an important cultural-historical reference point for foreign resistance to deals that impinge on national sovereignty. In this history also lies the long period of modern political organisation and state formation. As suggested by one of the interviewees, Ethiopia avoided the post-colonial state formation crisis experienced by most newly independent African states. Of course, it had its internal conflicts and contradictions, but that did not erode the political organisation, institutional memory and bureaucratic machinery of state institutions. Therefore, the exercise of agency by Ethiopians when engaging external powers can best be understood in its rich history and continuity in political organisation and state formation.

The second observation is that the system of governance, socio-economic and political make-up matters for the exercise of African agency. Ethiopia’s authoritarian developmental state system allows government institutions and political elites to exercise political and bureaucratic agency. This top-down developmental state created a national vision which had political buy-in from the TPLF-EPRDF. All energies were thus channelled towards the achievement of the
set objectives. Although this approach often faced criticisms both internationally and domestically, the government maintained its position. Economic development was therefore seen as a precursor to democracy. That said, the continued stay in power and “absence of powerful elite factions outside the ruling coalition has provided EPRDF with the stability required to adopt a long time horizon and space for a developmental vision to emerge” (Lavers, 2016, p. 23). This has the following implications: (i) development policy and vision lock-in, and (ii) bureaucratic machinery and institutional practice continuity. This also helps to explain how the Ethiopian government successfully maintained a wind energy development target, traced from 2004 onwards. Therefore, the governance and political make-up of the Ethiopian government had implications on mediating the structure, terms, conditions and project implementation patterns and dynamics.

The third observation pertains to the location of Ethiopia, which matters for geopolitical and geo-economic calculations by foreign powers. The Chinese have invested a lot of money in Ethiopia, a natural resource-poor country, which contradicts the assertion that China invests only in natural resource-rich countries. Explanations for this could be found in Ethiopia’s political and diplomatic role in Africa. It is close to Djibouti, and not very far from the Indian Ocean, a significant trade route for the Chinese merchants. It is a regional powerhouse and has remained politically stable in a volatile region. As a result, foreign powers such as USA, China, Russia and EU have been keen to establish relations with Ethiopia for geopolitical and geo-economic reasons. Therefore, carrots and sticks are used to win the support of the Ethiopians. For that, Ethiopia has often been used as a launch-pad, or experimental ground for Chinese engagements in Africa. Notable examples of projects include: (i) Adama wind farms; (ii) Addis Ababa Light Rail; (iii) Addis Ababa ring-road; (iv) Tekeze hydroelectric project; (v) AUC conference centre; (vi) Addis-Djibouti railway; and (vii) Gibe IV hydroelectric project.

Fourth and finally, considering the three observations mentioned above, Ethiopian actors define and influence their interactions with the Chinese explicitly based on their knowledge of what the Chinese are able to deliver. As noted by the Deputy Director General for the Department of African Affairs in the C-MFA that Ethiopia “fully understands what we (Chinese) intend to do” (Interview 20170621175736). By the same account, Ethiopia’s development and political governance trajectories are quite similar to the Chinese, where political and civil liberties are restrained while promoting state-led economic development. Ethiopia has devoted much of its budget to infrastructure development as is the case with the Chinese. As confirmed by Arkebe Oqubay:

“Ethiopia gives long term preferences to infrastructure investment. We spent close to 60% of our federal budget only to infrastructure. There is no country like China that
can tell us that infrastructure is so important in terms of long-term development” (Presentation 20170621111431).

While Ethiopia maintains and receives economic, social and political assistance from Western countries and development agencies, Chinese assistance, especially in ‘hard’ infrastructure financing and development, remains dominant. Although this complementarity exists, Ethiopians and other Africans prefer Chinese financing terms and conditions to the West’s conditioned assistance. This should not imply that the Chinese do not condition their assistance, which they do, but without prescribing governance and political conditions. As remarked by one official from MOWIE, the Chinese offer “political unconditional investments” (Interview 20170531143837). Therefore, “Chinese financing approach is preferred by Ethiopia because of non-conditionality which provides a unique opportunity for the majority of African countries” (Interview 20170829104223).

8.3 Contributions of the study
This study makes three interrelated contributions in the study of Africa-China relations and also on the role of African politics in shaping international development patterns and dynamics. Firstly, research on Africa-China engagement focusing on the engagement modalities, negotiations and decision-making processes on infrastructure financing and development is scarce. Those studies that exist do not offer detailed explanations of what drives and motivates the development of such mega-infrastructure projects, how the deals are structured, who is involved and with what implications. This thesis contributes new data on Ethiopian and Chinese engagement in wind energy development, a new sector of cooperation. I have explicitly presented in chapters five, six and seven, the drivers and motivations for developing the two wind farms, the facts and figures in terms of costs and financing information, contracting agreements, implementation, management, operations and outcomes of the two wind farms. By making these data available for further studies, I have ‘opened’ the black boxes that characterise, in most cases, the infrastructure deals involving African and Chinese stakeholders. This promotes transparency and accountability as data will be available, including to African political actors, to make informed policy choices.

Secondly, this study contributes new evidence on the theory of African agency in Africa-China studies as presented in chapters four, five, six and seven. Despite a burgeoning literature that applies the theoretical framework of African agency in Africa-China relations (see Procopio, 2019; Soule-Kohndou, 2019; Phillips, 2018; Llampert & Mohan, 2015; Corkin, 2015), very few studies so far exist in the context of Ethiopia-China engagements (Gadzala, 2013; Alemu & Scoones, 2013). Besides, such a theoretical framework has not been applied in the case of Ethiopia-China engagement in the case of wind energy infrastructure. Existing studies do not offer a holistic account of how domestic socio-political and economic variables influence how
Ethiopians broker, negotiate, implement, manage, operate and mediate the outcomes and impacts of the mega-infrastructure projects. Throughout the thesis, I have shown that the TPLF-EPRDF authoritarian developmental state model’s obsession with infrastructure development and economic progress has consistently been used as a yardstick to measure ‘development’ explicitly aimed at maintaining political relevance and existential legitimacy. Therefore, contrary to some accounts that present China as more dominant, this study has provided new evidence to the contrary.

Thirdly and finally, this study contributes to the methodological and conceptual model to empirically study the exercise of African agency in Africa-China engagements. Using a process tracing approach discussed in chapter three and applied in chapter five, six and seven, I have empirically reconstructed the engagement modalities and negotiation processes between Ethiopian and the Chinese along the projects’ life cycles. As presented in table 8.1, I empirically identified and defined the following parameters: autonomy, influence, ownership and responsibility. By autonomy, I examined the independence of Ethiopian actors when engaging with the Chinese. In terms of influence, I assessed the role and level of Ethiopian actors in directing the mode and nature of engagement and shaping intervention pathways. In the context of ownership, I questioned custodianship, right of possession of intervention and proprietorship of the wind farms. In terms of responsibility I examined the degree of control of proposed intervention pathways. To understand these parameters, three degrees of assessment were thus formulated: reactive, precautionary and proactive (see table 8.2). I define reactive agency in its broadest sense in which I underscore how Ethiopian actors were seen to undertake actions and choices in decision making based on scenarios already created by the Chinese. This could be understood as a response strategy. The second degree of measurement of Ethiopian agency is precautionary, conceived as how Ethiopian actors engaged the Chinese in ways seen not to ‘offend’ their ‘friends’, the Chinese. This implied the Ethiopians engaged with the Chinese strategically to prevent deadlocks. The last degree of measurement of the Ethiopian agency is proactive, which I conceptualise as the Ethiopian actors ‘taking charge’ or ‘control’ of the engagements with the Chinese. This is a direct opposite of reactive agency mentioned above.

I have thus offered new insights and contributed to the empirical and theoretical debates on African agency in Africa-China engagements. I also further contribute to decolonising international relations and international development studies through a novel approach of researching a bottom-up angle beyond the dominant top-down or Global North-South approaches.
8.4 Reflections on the methodological limitations of the research
This thesis was premised on the need to understand Ethiopian actors’ exercise of agency when engaging with the Chinese in the financing and development of Adama wind farms. It was found that the Ethiopian actors were able to exercise agency when interacting with the Chinese. The exercise of different parameters of agency (see table 8.1 and 8.2) by Ethiopian actors are relational and highly dependent on the context in which the interactions occurred. Bearing this in mind, I now reflect on the limitations of the study and offer some suggestions for future directions of research on African agency in the context of Africa-China relations. The first limitation is on the use of one country case study and two similar sector-specific case studies—Adama 1 and Adama 2 wind farms. This may have implications on the breadth and representativeness of the findings. However, by narrowing my scope of focus to one country and two wind farms, I was able to provide a rich and detailed explanation of drivers and motivations, engagement modalities, negotiation processes and engagement outcomes and their development implications. The one country and sector-specific case studies used here were not intended for drawing comparisons, but to provide robust empirical evidence to support my argument presented throughout the thesis. Therefore, the findings of this study may not necessarily be generalizable, but the empirical-theoretical model (see table 8.1 and 8.2) developed in this study can be applied in different countries and other case studies.

Second, only Africa based\textsuperscript{151} (Ethiopia and South Africa) Chinese government institutions, state, semi-state and private owned enterprises were interviewed in this study. This was because contacting officials from C-EXIM Bank and SANY Group based in China proved to be impossible within the timescale of the project, in spite of repeated attempts. Nevertheless, there was a possibility as already warned by Brautigam that Chinese actors based in China have no information or little experience of the projects in Africa (The China Africa Project, 2013). As such, I relied on local (Africa-based Chinese) accounts. The absence of the two identified stakeholders’ perspectives in this study does not, however, undermine the findings

\textsuperscript{151} Except for few Chinese delegates I interviewed on the side-lines of Africa-China Think Tank Forum in Addis Ababa, 2017.
of this study as much of the data was gathered from Chinese actors in Ethiopia, namely HydroChina and CGCOC, EEP project management teams, MOWIE, the consultant’s offices and Goldwind. The information gathered from these different sources were furthermore corroborated by triangulation between them, adding confidence in the validity and reliability of the findings.

8.5 Policy recommendations for the Ethiopian government
This study recommends five policy interventions to the Ethiopian government. First, there is a need for improving inter-institutional horizontal and vertical coordination within and across federal state (MOWIE, MOFEC, MFA, MEFCC, EEP, EEU, EEA, EIC), regional state and local Woreda administrative institutions so as to improve and increase efficiency to fully maximise the agency of the Ethiopian government. Second, there is a need to create space for civil society organisations and general members of the public to hold the government accountable on the public consultation, compensation, and implementation aspects of the deals.

Third, although universities were involved as consultants, there was no official government policy that legally stipulated the role of local universities in terms of skills and technical knowledge transfer when dealing with Chinese enterprises. This also applied to EEP engineers. While the contracts stated the expected skills and level of training, this was not systematic, and there were no follow-up mechanisms to monitor the effectiveness of the skills transferred. Furthermore, there is a need to improve human resource capacity to have full, meaningful skills and knowledge transfer. EEP officials are not adequately remunerated such that the skills they gain from these projects are not actually of benefit to the government as the majority will shift to the private sector. Fourth, the Ethiopian government should design new or improve the existing monitoring and evaluation models to assess the performance indicators of Chinese enterprises after the completion of the projects. Finally, the Ethiopian government must design a local content policy to regulate systematically the expected percentage of project input from local resources.

8.6 Directions for future research
First, this research has established how the Ethiopian government exercised agency when engaging the Chinese in Adama wind farms. Future directions of research can benefit from the empirical-theoretical model developed in this study to examine comparatively Ethiopian agential dimensions on renewable energy infrastructure projects financed and developed on the one hand, by the Chinese and on the other hand, by the Western development agencies. Second, the study has established that the exercise of agency by Ethiopian actors is relational and contextual. It will be worthwhile to explore the Ethiopian agential dimension when
engaging with the Chinese in different sectors: health, education, transport and energy, aimed specifically at measuring how contextual differences impact on these parameters of agency.

Third and finally, another potential direction for future research on African agency in the context of Africa-China relations may be a comparative exploration of countries with different systems of governance, location, natural resources endowment and economic development indicators.

8.7 Concluding remarks
In this thesis, I have examined the exercise of agency by Ethiopian actors when engaging the Chinese using Adama 1 and Adama 2 wind energy infrastructure as case studies. I have analysed: (i) the drivers and motivations for Ethiopians and Chinese to finance and develop the two wind farms; the engagement modalities and negotiation processes experienced in the two wind farms; and the engagement outcomes and local development impacts of the two wind farms. By exploring the exercise of agency by Ethiopian actors in these three interrelated sub-questions, this thesis contributes to new and emerging literature focused on African agency in Africa-China studies. Overall, the Ethiopian government was able to influence the engagement patterns and outcomes in the two wind farms. This finding is important and challenges the dominant paradigm that the Africans have little or no influence on major infrastructure engagements with the Chinese.
Bibliography


https://doi.org/10.1080/08039410.2008.9666409


234


Basingstoke: Palgrave.


241


Lefort, R. (2013). The Theory and Practice of Meles Zenawi: A Response to Alex De Waal. *African Affairs, 112*(448), 460–470. Retrieved from https://watermark.silverchair.com/adto21.pdf?token=AQECAHi208BE49Ooan9kkhW_Er cy7Dm3ZL_9Cf3qfKAc485ysgAAAmIwggJeBkgkhkiGi9w0BBwagggJPMLICSwlBADC AkQGCsSqGSLb3DQEHATAeBglghkgBQMEAS4wEQMK7m0AhNUyZlZnG1OAgEQ gllCFfslXpjBA16e53OgOM8SB9lkxWY9QiPS9SH2qqf0Tws-lfK


Recognising Africa on the power grid. https://doi.org/10.4324/9781849771061


state-rex-w-tillerson-remarks-george-mason-university-march-6-2018/


Interview and presentation reference

Interview 20171101140944 with a local priest farmer in Adama woreda

Interview 20170724143353 with official at the British Embassy in Addis Ababa

Interview 20170526121908 with a St Andrews University and Renmin University Professor

Interview 20171011140053 with Ethiopian government official from MOWIE

Interview 20170512172020 with former Ethiopian ambassador to China 1999-2004, current member of the EPRDF-Executive Council and current Deputy President of Tigray Regional State, Central Committee and Politburo Member of the TPLF.

Interview 20170711143359 with African Union-European Union Partnerships Senior Energy Researcher based at the African Union Commission

Interview 20171020140152 with Marketing and Strategic Planning Supervisor for CGCOC and Operating Secretary Chinese Chamber of Commerce in Ethiopia

Interview 20171031142927 with HydroChina Operations and Maintenance, Plant Manager at Adama 2 wind farm

Interview 20180120178596 with Goldwind Business Development Manager for East Africa

Interview 20170621123109 with a Chinese delegate from Zhangzhou Normal University at China-Africa High Level Forum in Ethiopia June 2017

Interview 20170801090344 with CGCOC-Ethiopia Energy Section

Interview 201731115916 with Ethiopia Electric Power official from Generation Strategy and Investment of the Generation Department

Interview 20170531143837 with Ethiopian government official, Energy Researcher at MOWIE

Interview 20170609111018 with Ethiopian government Senior Energy Analyst at MOWIE

Interview 20170630114108 with Lecturer at Ethiopian Foreign Relations Strategic Studies Institute
Interview 20170731110952 with Ethiopian Electric Power official from the Power Generation and Investment Strategy Department of the Generation Department

Interview 20170606140042 with Ethiopian government Chief Energy Analyst at MOWIE

Interview 20171229144752 with HydroChina Adama 2 Project Manager

Interview 20170613100147 with two officials from Ethiopia Investment Commission, Investment Project Facilitation & Aftercare Directorate

Interview 20170630164633 with Ethiopian government in the Ethiopia-China Development Cooperation Directorate at MOFEC

Interview 20170712135318 with a Lecturer at the Ethiopian Foreign Relations Strategic Studies Institute

Interview 20170802142852 with Addis Ababa University Professor in the Department of Political Science

Interview 20170802154843 with Addis Ababa University Professor in the Department of Political Science

Interview 20181701555224 with CEO of Ethiopia Electric Utility

Interview 20170623163225 with three Adama 2 wind farm project management team from Ethiopia Electric Power

Interview 20170712152354 with Senior Energy Officer at the African Development Bank, Ethiopia Country Office

Interview 20170714094901 with Adama 1 Project Manager from Ethiopia Electric Power

Interview 20170608141010 with Ethiopian government official, Director of Public Relations and Communications at MOWIE

Interview 20170811121252 with Mekelle University Department of Mechanical Engineering official who participated in Adama 2 wind farm as part of the consultancy team

Interview 20170524162135 with senior lecturer at Addis Ababa University

Interview 20171027105200 with an Ethiopian government official in the Chinese Desk of the Ethiopian Ministry of Foreign Affairs

Interview 20170829094453 with the editor of the Ethiopian Reporter Newspaper English version
Interview 20170830072517 with Xinhua News Agency journalist based in Ethiopia

Interview 20170621175736 with the Deputy Director General for Department of African Affairs in the Chinese Ministry of Foreign Affairs

Interview 20170819151844 with the Editor in Chief of the Addis Fortune Business Newspaper

Interview 20170616002456 with former Director of Asia Desk in the Ethiopian Ministry of Finance and Economic Cooperation and now Senior Research Analyst for the Division of Partnership and Collaboration at the African Union Commission

Interview 20170615113129 with Oxfam International China Africa Program Manager based in Ethiopia

Interview 20170829104223 with the Editor in Chief of the English version of the Reporter Newspaper in Ethiopia

Interview 20170614122145 with private energy infrastructure consultant Ethiopia

Interview 201711021111348 with Adama Kebele Chairman translated from Afaan Oromia to English

Interview 20171101115937 with a farmer in Qachema Kebele translated from Afaan Oromia to English

Interview 201711021212240 with four participants: three farmers and one cook involved in Adama 1 construction, translated from Afaan Oromia to English

Interview 20171117145704 with Deputy project manager for Adama 2 consultants’ team from Adama Science and Technology University

Interview 20171027565623 with Far East Trade Route Division Manager from the Ethiopian Shipping and Logistics Service Enterprises

Interview 20170626161007 with an engineer from Addis Ababa University Institute of Technology who was a consultant for Adama 1 wind farm

Interview 20170620113822 with an engineer from Addis Ababa University Institute of Technology who was a consultant for Adama 1 wind farm

Interview 20171101130419 with 5 farmers near Adama 1 and Adama 2 plant sites translated from Afaan Oromo to English

Interview 20171101100610 with Qachema Kebele Chairman translated from Afaan Oromo to English
Interview 20171101112931 with a farmer and a small business owner in Qachema *translated from Afaan Oromo to English*

Interview 20171101123146 with a farmer in Qachema Kebele *translated from Afaan Oromo to English*

Interview 20171102115957 with a youth in Adama Kebele *translated from Afaan Oromo to English*

Interview 20171117055623 with Adama Woreda Administration—former Chairman for Adama Woreda during the implementation of Adama wind farms

Interview 20171117055562 with Oromia regional government official, Adama City Land Management and Development Agency

Interview 201711150212123 with Adama 2 plant manager from Ethiopia Electric Power

Interview 20171102124808 with a farmer in Adama Woreda *translated from Afaan Oromo to English*

Interview 201711150245153 with a was resettled farmer in Adama 2 *translated from Afaan Oromo to English*

Interviews 20178025141733 with the Executive Director of the Forum for Environment Non-Governmental Organisation in Ethiopia

Interview 20171031151356 with construction and foundation engineer for Adama 1 and Adama 2 working for HydroChina

Presentation 20192105 given Chinese Export and Import Bank official at the Oxford University China Africa Conference at Oxford University on 21 May 2019

Presentation 20170621111431 given by Dr Arkebe Oqubay at the China-Africa High Level Forum in Ethiopia 21 June 2017
Appendix 8. 1 Interview questions

**Chinese Enterprises (HydroChina/SinoHydro; CGCOC; Goldwind; SANY Group; EXIM Bank) and other related stakeholders**

- Name
- Gender
- Age
- Level of Education
- Organisation/Institution
- Position at the Organisation/Institution
- Time worked for the Organisation/Institution
- Primary responsibilities

1. Based on your opinions on Ethiopia-China engagement in wind energy infrastructure investment, what role did the following institutions play?
   a. Chinese State Council
   b. Chinese Ministry of Foreign Affairs
   c. Chinese Embassy in Ethiopia
   d. Chinese Ministry of Commerce
   e. Export and Import Bank of China
   f. Chinese Ministry of Finance
   g. Ethiopian Embassy in Beijing
   h. Ethiopian Ministry of Foreign Affairs
   i. Ethiopian Ministry of Finance and Economic Development
   j. Other

2. What motivated or drove your organisation’s involvement in (construction/investment/sub-contract) the wind farms?

3. In 2009 the Ethiopian government awarded Chinese enterprises the contract to construct Adama 1 and Adama 2 wind farms. Based on your opinions, which factors led to the Ethiopian government to award the contract to Chinese enterprises and not any other developers.

4. How were the two wind farms financed and how unique was the financing model (explain)?

5. Based on your own opinion, what factors motivated the Ethiopian government to construct Adama 1 and Adama 2 wind farms?

6. Who initiated the negotiations and the request for investment/loan in the two wind farms?

7. When did the negotiations and requests for investment/loan provision begin for both Adama 1 and Adama 2 wind farms?

8. I understand that Ethiopia-China cooperation in the two wind farms occurred at multiple levels. Based on your own opinion, at which level did the negotiations for investment begin?
   a. Forum on China–Africa Cooperation (FOCAC)
   b. Embassy Level (Beijing/Addis Ababa)
   c. Foreign Affairs Ministerial level
   d. Energy Ministerial level
   e. Finance Ministerial level
f. Community level

9. At which level/stage was your institution/organization involved in the negotiations? You can choose more than one answer.

a. Forum on China–Africa Cooperation (FOCAC) level
b. Foreign Affairs Ministerial level
c. Embassy Level (Beijing/Addis Ababa)
d. Energy Ministerial level
e. Finance Ministerial level
f. Community level
g. Project Implementation level
h. Other

10. What type of negotiations were you involved in with the Ethiopian stakeholders? You can choose more than one answer.

a. Project Request Negotiations
b. Investment Cost (Price) Negotiations
c. Financing Model Negotiations
d. Project Construction Contracting (sub-contracting) Negotiations
e. Pre-project (Planning) Negotiations
f. Project Location Negotiations
g. Project Public Consultation Negotiations
h. Other

11. How difficulty was it to come up with an agreed outcome/settlement during your involvement in the above-mentioned negotiations?

12. Please identify stakeholders you engaged with in Adama wind farms
a. Stakeholder 1
b. Stakeholder 2
c. Stakeholder 3
d. Stakeholder 4
e. Stakeholder 5
f. Stakeholder 6
g. Stakeholder 7
h. Stakeholder 8
i. Stakeholder 9
j. Stakeholder 10

13. For each of the stakeholders, please identify their roles and responsibilities in the case of Adama wind farms
   a. Stakeholder 1
   b. Stakeholder 2
   c. Stakeholder 3
   d. Stakeholder 4
   e. Stakeholder 5
   f. Stakeholder 6
   g. Stakeholder 7
   h. Stakeholder 8
   i. Stakeholder 9
   j. Stakeholder 10

14. For each of the stakeholder you have identified, which one had the power to influence decisions during your engagement with them.
15. Did the Ethiopian stakeholders have specific wind technology models to be used for the wind farms? What are these models? In your opinion, why did they want those specific wind technology models?
16. What Environmental and Social Impact Assessment or requirements did your enterprise follow during its involvement in the wind farms?
17. Were there any public consultation before the construction of the two wind farms? Were there any challenges encountered and how were they resolved?
18. How was legal access to land for the wind farms negotiated?
19. What were the salary range, accommodation and working conditions for both local people and expatriates in the construction and maintenance of the two wind farms?
20. Were there any Policy and Regulation changes in Ethiopia’s energy sector as a result of the two wind farms? And what were these changes?
21. What skills and technology were transferred from China to Ethiopia on the two wind farms? And do you think the Ethiopians have got the industrial and technical capacity to construct their own wind farms without technical help from China?
22. Would you comment on the local manufacturing and industrial sectors that emerged as a result of the two wind farms?
23. What are your recommendations for future Ethiopia-China engagement in wind energy infrastructure investment?
Interview questions for Ethiopian Ministry of Finance and Economic Cooperation/Development

Background information of the participant

- Name
- Age
- Level of education
- Organisation/Institution
- Position of the respondent
- Primary responsibilities
- Stakeholder category

The wind energy market sector and the dynamics of engagement

1. As the Ministry of Finance and Economic Development, what is your overall role in issues pertaining to Finance and Investment in energy sector?
2. Research is suggesting that China is an emerging player investing in Ethiopia's energy sector, could you kindly comment on this scenario?
3. In 2009 the Ethiopian government awarded the Chinese actors the contract to construct Adama 1 and Adama 2 wind energy projects. Based on your experience in the sector, what factors led to the Ethiopian government to award the contract to the Chinese?
4. I understand that Ethiopia-China Cooperation in the two wind energy projects occurred at multiple levels: Embassy, Ministerial, Sectorial, and Project Implementation level.
   a. What processes are done before an investment deal is signed?
   b. At which stage/level did the negotiations begin?
   c. What type of negotiation processes were you involved in and what was your primary role and responsibility?
   d. Who initiated the negotiations: Was it you or the Chinese?
   e. When did the negotiations begin and how easy or difficult was it to come up with a settlement/Agreement?
   f. What risks, challenges and uncertainties did you encounter when negotiating the financing terms and conditions with the Chinese stakeholders?
5. Other than the profit motive by the Chinese actors, in your own opinion, why did the Chinese actors invest in the two wind farms?
6. Other than the climate change reasons, what other factors drove and motivated the Ethiopian government to construct Adama 1 and Adama 2?
7. How many local Financial Institutions financially contributed to the investment in the two projects? What role did they play and why were they involved?
8. What are/were the financial/investment terms for the two projects? What was the interest rate? The Repayment plan? How did this impacted on Ethiopia's International Debt Sustainability?

Project Implementation: Construction, Operation and Maintenance

9. How many contractors whether local or international were involved in the Construction of the projects and what were their primary roles and responsibilities?
10. How many contractors are involved in the Operation & Maintenance of the projects and what are their primary roles and responsibilities?
11. What Environmental and Social Impact Assessment were carried out before and after the construction of the two projects? Who carried out the Impact Assessment and what were the outcomes?
12. Were there any public consultation before and after the Construction of the two projects? Were there any challenges encountered and how were they resolved?
13. How was access to land for the projects negotiated? Were there any resettlement of people, and if so, how/where were they resettled, compensated, and who did the compensation?
14. How many people were hired locally in the two projects? What were their living and working conditions? Were there any cases of disputes between the employer and the employee and how were the disputes resolved?
Project Outcomes and Impacts

15. What are the impacts of the two projects on price and access to electricity at a household level in Adama?
16. What are the impacts of the two projects with regards to investment policy and regulation framework in the wind energy sector in Ethiopia?
17. What skills and technology were transferred from China to Ethiopia on the two projects?
18. Overall, were there any finance and investment challenges that were encountered in the two projects? How were they solved? And what will you recommend for future financing model, or investment approach to wind energy projects in Ethiopia?
Interview questions to MOWIE, EEP, EEU and other energy sector players

- Name
- Gender
- Age
- Level of Education
- Organisation/Institution
- Position at the Organisation/Institution
- Time worked for the Organisation/Institution
- Primary responsibilities

1. How is the wind energy industry structured in Ethiopia?
2. Who is dominating in the market structure?
3. What has been the growing role of China in the development of Ethiopia’s energy sector? How many energy projects have the Chinese been involved in Ethiopia?
4. Studies suggest that the various institutions manage China’s engagement with African countries. In your opinion, what role did the following institutions play in Ethiopia-China engagement in wind energy infrastructure investment?
   a. Ethiopian Ministry of Foreign Affairs
   b. Ethiopian Ministry of Finance and Economic Development
   c. Ethiopian Ministry of Water, Irrigation and Electricity
   d. Ethiopian Embassy in Beijing
   e. Chinese Embassy in Ethiopia
   f. Chinese Ministry of Commerce
   g. Export and Import Bank of China
   h. Other

5. The two wind farms are the first Chinese wind energy projects in the entire Sub-Saharan Africa built by Chinese technology. Based on your working experience, what are Chinese enterprises motivations and drivers for their involvement in (construction/investment/sub-contract) the wind farms?

6. In 2009 the Ethiopian government awarded Chinese enterprises the contract to construct Adama 1 and Adama 2 wind farms. Based on your opinions, which factors led to the Ethiopian government to award the contract to Chinese enterprises and not any other developers.

7. How were the two wind farms financed and how unique was the financing model (explain)?

8. Based on your own opinion, which factors motivated the Ethiopian government to construct Adama 1 and Adama 2 wind farms?

9. Who initiated the negotiations and the request for investment/loan in the two wind farms?

10. When did the negotiations and requests for investment/loan provision begin for both Adama 1 and Adama 2 wind farms?

11. Ethiopia-China negotiations in the two wind farms occurred at multiple levels/stages. At which level/stage did the negotiations for investment/loan provision began?
   a. Forum on China-Africa Cooperation (FOCAC)
   b. Embassy Level (Beijing/Addis Ababa)
   c. Foreign Affairs Ministerial level
   d. Energy Ministerial level
   e. Finance Ministerial level
   f. Community level
   g. Project implementation level
   h. Other
12. At which level/stage was your institution/organization involved in the negotiations? You can choose more than one answer.
   a. Forum on China–Africa Cooperation (FOCAC) level
   b. Foreign Affairs Ministerial level
   c. Embassy Level (Beijing/Addis Ababa)
   d. Energy Ministerial level
   e. Finance Ministerial level
   f. Community level
   g. Project Implementation level
   h. Other

13. What type of negotiations was your institution/organization involved in? You can choose more than one answer.
   a. Project Request Negotiations
   b. Investment Cost (Price) Negotiations
   c. Financing Model Negotiations
   d. Project Construction Contracting (sub-contracting) Negotiations
   e. Pre-project (Planning) Negotiations
   f. Project Location Negotiations
   g. Project Public Consultation Negotiations
   h. Other

14. When your institution/organization was engaging with Chinese stakeholders, how difficult was it to reach an agreement?

15. Please identify stakeholders your institution engaged with in the (negotiation/planning/design/implementation/operation/maintenance) case of Adama wind farms
   a. Stakeholder 1
   b. Stakeholder 2
   c. Stakeholder 3
   d. Stakeholder 4
   e. Stakeholder 5
   f. Stakeholder 6
   g. Stakeholder 7
   h. Stakeholder 8
   i. Stakeholder 9
   j. Stakeholder 10

16. For each of the stakeholders, please identify their roles and responsibilities in the case of Adama wind farms
   a. Stakeholder 1
   b. Stakeholder 2
   c. Stakeholder 3
   d. Stakeholder 4
17. For each of the stakeholders you have identified, which one had the power to influence decisions during your engagement with them.

18. What Environmental and Social Impact Assessment were carried out before and after the construction of the two wind farms? Who carried out the Impact Assessment and what were the outcomes?

19. How was legal access to land for the two wind farms negotiated? Were there any resettlement of people, and if so, how were they compensated?

20. What are the impacts of the two wind farms on Policy and Regulation frameworks in the wind energy sector in Ethiopia?

21. What skills and technology were transferred from China to Ethiopia on the two wind farms? And would you feel like you have the industrial and technical capacity to construct wind farms without technical help from China?

22. Are there any local manufacturing and industrial sectors that emerged as a result of the two wind farms?

23. What are the impacts of the two wind farms on citizen and civil society engagement in public consultation processes?

24. Overall, what challenges were faced in the two wind farms and how were they resolved?

25. What are your recommendations for future Ethiopia-China engagement in wind energy projects in Ethiopia?
Interview questions with project-affected communities; CBO; NGOs stakeholders and other relevant stakeholders

- Name
- Gender
- Age
- Level of Education
- Organisation/Institution
- Position at the Organisation/Institution
- Time worked for the Organisation/Institution
- Primary responsibilities

1. The two wind farms are the first Chinese wind energy projects in the entire Sub-Saharan Africa built by Chinese technology. Based on your working experience, what motivated and drove the Chinese enterprises to be involved in (construction/investment/sub-contract) the wind farms?

2. In 2009 the Ethiopian government awarded Chinese enterprises the contract to construct Adama 1 and Adama 2 wind farms. Based on your opinions, which factors led to the Ethiopian government to award the contract to Chinese enterprises and not any other developers.

3. Based on your own opinion, which factors motivated the Ethiopian government to construct Adama 1 and Adama 2 wind farms?

4. At which level was your community involved in the negotiations? You can choose more than one answer

   a. Forum on China-Africa Cooperation (FOCAC) level
   b. Foreign Affairs Ministerial level
   c. Embassy Level (Beijing/Addis Ababa)
   d. Energy Ministerial level
   e. Finance Ministerial level
   f. Community level
   g. Project implementation level
   h. Other

5. What type of engagements and negotiations was your community involved? You can choose more than one answer.

   a. Project Request Negotiations
   b. Investment Cost (Price) Negotiations
   c. Financing Model Negotiations
   d. Project Construction Contracting (sub-contracting) Negotiations
   e. Pre-project (Planning) Negotiations
   f. Project Location Negotiations
   g. Project Public Consultation Negotiations
   h. Other

6. How difficulty was it to come up with an agreed outcome/settlement?
7. As a community, please identify the stakeholders you engaged with in the case of Adama wind farms
   a. Stakeholder 1
   b. Stakeholder 2
   c. Stakeholder 3
   d. Stakeholder 4
   e. Stakeholder 5
   f. Stakeholder 6
   g. Stakeholder 7
   h. Stakeholder 8
   i. Stakeholder 9
   j. Stakeholder 10

8. For each of the stakeholders, please identify their roles and responsibilities in the case of Adama wind farms
   a. Stakeholder 1
   b. Stakeholder 2
   c. Stakeholder 3
   d. Stakeholder 4
   e. Stakeholder 5
   f. Stakeholder 6
   g. Stakeholder 7
   h. Stakeholder 8
   i. Stakeholder 9
   j. Stakeholder 10

9. For each of the stakeholder you have identified, which one had the power to influence decisions during your engagement with them.

10. What was your role in the pre-project consultation with regards to the construction of Adama 1 and Adama 2 wind farms?

11. In your opinion, what role did the community play in demanding for the Adama 1 and Adama wind farms?

12. How was legal access to land negotiated between the state and the community, and what role did the community play in deciding on the location of the wind farms?

13. On the land for the projects, were there any resettlement of people, and if so, how and where were they resettled and compensated?

14. For the purpose of Adama wind farms, who did you directly engage with: the Chinese or the Ethiopian government? And why?

15. In your opinion, what Environmental and Social Impact Assessment were carried out before and after the construction of the two farms? Who carried out the Impact Assessment and what were the outcomes?

16. As a community in your own opinion, what skills and technology did you benefit from the Chinese in the case of the two wind farms?

17. Did the construction of Adama wind farms contributed in your community having access to electricity?

18. In what ways would you consider access to electricity as positive or negative to your well-being, community, region and the country?

19. Overall, were there any challenges that were faced when engaging with the stakeholders in the two farms? How were they resolved?

20. What are your recommendations for future Ethiopia-China engagement in wind energy projects in Ethiopia?
Interview questions for project consultants

- Name
- Gender
- Age
- Level of Education
- Organisation/Institution
- Position at the Organisation/Institution
- Time worked for the Organisation/Institution
- Primary responsibilities

1. What is your understanding of Ethiopia-China engagement in wind energy infrastructure investment?
2. In the context of wind energy sector in Ethiopia, what type of engagements are you involved in?
3. Who drives/influence your ways of engagement with these stakeholders?
4. The two wind farms are the first Chinese wind energy projects in the entire Sub-Saharan Africa built by Chinese technology. Based on your working experience, what factors motivated the Chinese enterprises involvement in (construction/investment/sub-contract) the wind farms?
5. In 2009 the Ethiopian government awarded Chinese enterprises the contract to construct Adama 1 and Adama 2 wind farms. Based on your opinions, what factors led to the Ethiopian government to award the contract to Chinese enterprises and not any other developers.
6. Based on your own opinion, which factors motivated the Ethiopian government to construct Adama 1 and Adama 2 wind farms?
7. Who initiated the negotiations and the request for investment/loan in the two wind farms?
8. When did the negotiations and requests for investment/loan provision begin for both Adama 1 and Adama 2 wind farms?
9. I understand that Ethiopia-China cooperation in the two wind farms occurred at multiple levels. At which level did the negotiations for investment began?
   a. Forum on China–Africa Cooperation (FOCAC)
   b. Embassy Level (Beijing/Addis Ababa)
   c. Foreign Affairs Ministerial level
   d. Energy Ministerial level
   e. Finance Ministerial level
   f. Community level
   g. Project implementation level
   h. Other

10. At which level/stage was your institution/organization involved in the consultancy negotiations? You can choose more than one answer.
    a. Forum on China–Africa Cooperation (FOCAC) level
    b. Foreign Affairs Ministerial level
    c. Embassy Level (Beijing/Addis Ababa)
    d. Energy Ministerial level
    e. Finance Ministerial level
f. Community level

g. Project implementation level

h. Other

11. What type of engagement and negotiations was your institution/organization involved in? You can choose more than one answer.

a. Project Request Negotiations

b. Investment Cost (Price) Negotiations

c. Financing Model Negotiations

d. Project Construction Contracting (sub-contracting) Negotiations

e. Pre-project (Planning) Negotiations

f. Project Location Negotiations

g. Project Public Consultation Negotiations

h. Other

12. How difficulty was it to come up with an agreed outcome/settlement?

13. As a consultant, please identify stakeholders you engaged with in the case of Adama wind farms

a. Stakeholder 1

b. Stakeholder 2

c. Stakeholder 3

d. Stakeholder 4

e. Stakeholder 5

f. Stakeholder 6

g. Stakeholder 7

h. Stakeholder 8

i. Stakeholder 9

j. Stakeholder 10

14. For each of the stakeholders, please identify their roles and responsibilities in the case of Adama wind farms

a. Stakeholder 1

b. Stakeholder 2

c. Stakeholder 3

d. Stakeholder 4

e. Stakeholder 5

f. Stakeholder 6

g. Stakeholder 7

h. Stakeholder 8

i. Stakeholder 9

j. Stakeholder 10

15. For each of the stakeholder you have identified, which one had the power to influence decisions during your engagement with them?

16. I understand that there were three Universities that collaborated in the two wind farms: Adama, Addis Ababa and Mekelle University. What role did your university play? How unique was it in comparison to other universities involved?

17. What was your consultant role during:

a. Pre-project phase

b. Construction
c. Operation and Maintenance

18. How many people were involved in the wind farms from your university? Why were they involved and what were their roles?

19. What skills and technology were transferred from China to Ethiopia on the two wind farms? And would you feel like you have the technical and industrial capacity to construct wind farms without the technical assistance from China?

20. Would you comment on the local manufacturing and industrial sectors that emerged as a result of the two wind farms? Which sectors are these? And what role did they play?

21. Overall, were there any challenges that were faced when engaging with the Chinese stakeholders in the two wind farms? How were they solved?

22. What are your recommendations for future Ethiopia-China engagement in wind energy projects in Ethiopia?
Interview questions with Ethiopian Ministry of Foreign Affairs

- Name
- Gender
- Age
- Level of Education
- Organisation/Institution
- Position at the Organisation/Institution
- Time worked for the Organisation/Institution
- Primary responsibilities

1. Ethiopia-China relations is old, but recently we have seen the relations extending to wind energy infrastructure sector. Would you kindly tell me more about this new face of relations?
2. In the Ministry of Foreign Affairs, how are the relations between Ethiopia and China coordinated and managed?
3. Research on Ethiopia-China engagements is suggesting that Ethiopia successfully shape and influence its engagement with China. How does the MFA do this?
4. Studies suggest that the various institutions manage China’s engagement with African countries. In your opinion, what role did the following institutions play in Ethiopia-China engagement in wind energy infrastructure investment?
   - a. Ethiopian Embassy in Beijing
   - b. Ethiopian Ministry of Foreign Affairs
   - c. Ethiopian Ministry of Finance and Economic Development
   - d. Ethiopian Ministry of Water, Irrigation and Electricity
   - e. Chinese Ministry of Foreign Affairs
   - f. Chinese Embassy in Ethiopia
   - g. Chinese Ministry of Commerce
   - h. Export and Import Bank of China
   - i. Chinese Ministry of Finance
   - j. Other

5. The two wind farms are the first Chinese wind energy projects in the entire Sub-Saharan Africa built by Chinese technology. Based on your working experience, what motivated the Chinese enterprises involvement in (construction/investment/sub-contract) the wind farms?
6. In 2009 the Ethiopian government awarded Chinese enterprises the contract to construct Adama 1 and Adama 2 wind farms. Based on your opinions, which factors led to the Ethiopian government to award the contract to Chinese enterprises and not any other developers.
7. Based on your own opinion, which factors motivated the Ethiopian government to construct Adama 1 and Adama 2 wind farms?
8. In your opinion, who initiated the request for investment and the negotiations on the two wind farms?
9. When did the negotiations begin for both Adama 1 and Adama 2 wind farms?
10. I understand that Ethiopia-China cooperation in the two wind farms occurred at multiple levels. At which level did the negotiations for investment began?
   - a. Forum on China-Africa Cooperation (FOCAC)
   - b. Embassy Level (Beijing/Addis Ababa)
   - c. Foreign Affairs Ministerial level
   - d. Energy Ministerial level
   - e. Finance Ministerial level
   - f. Community level

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g. Project implementation level

h. Other

11. At which level was your institution involved in the engagements and negotiations? You can choose more than one answer

a. Forum on China–Africa Cooperation (FOCAC) level

b. Foreign Affairs Ministerial level

c. Embassy Level (Beijing/Addis Ababa)

d. Energy Ministerial level

e. Finance Ministerial level

f. Community level

g. Project implementation level

h. Other

12. What type of negotiations was your institution involved in? You can choose more than one answer.

a. Project Request Negotiations

b. Investment Cost (Price) Negotiations

c. Financing Model Negotiations

d. Project Construction Contracting (sub-contracting) Negotiations

e. Pre-project (Planning) Negotiations

f. Project Location Negotiations

g. Project Public Consultation Negotiations

h. Other

13. When engaging with the Chinese, how difficult was it to come up with an agreed outcome/settlement?

14. Please identify stakeholders your institution engaged with in the case of Adama wind farms

a. Stakeholder 1

b. Stakeholder 2

c. Stakeholder 3

d. Stakeholder 4

e. Stakeholder 5

f. Stakeholder 6

g. Stakeholder 7

h. Stakeholder 8

i. Stakeholder 9

j. Stakeholder 10

15. For each of the stakeholders, please identify their roles and responsibilities in the case of Adama wind farms

a. Stakeholder 1
b. Stakeholder 2

c. Stakeholder 3

d. Stakeholder 4

e. Stakeholder 5

f. Stakeholder 6

g. Stakeholder 7

h. Stakeholder 8

i. Stakeholder 9

j. Stakeholder 10

16. For each of the stakeholder you have identified, which one had the power to influence decisions during your engagement with them?

17. From an international relations perspective, what impact did the two wind farms have on Ethiopia-China cooperation?

18. Generally, what are the impacts of the two wind farms on citizen and civil society engagement in consultation processes?

19. Overall, were there any challenges that were faced in the two wind farms? How were they solved?

20. What are your recommendations for future Ethiopia-China cooperation in wind energy infrastructure investments?
Additional interview questions to other relevant stakeholders

1. Research suggest that Ethiopia's political settlement (ruling party) is currently composed of 4 major political parties, what is the operational mechanism of this political coalition/settlement?
2. How does this political settlement /coalition in Ethiopia influence Ethiopia's engagement with external powers such as China?
3. Given the fact that these four political parties are derived or based on 4 major ethnic tribes/regions in Ethiopia. How does this political settlement operate in engaging Chinese enterprises/stakeholders in regional infrastructure development projects in Ethiopia?
4. The two wind farms, Adama 1 and 2 are located in Oromia. How influential and decisive was Oromo Peoples' Democratic Organisation in the development of the two wind farms by the Chinese enterprises?
5. At an Ethiopian regional administrative level, what cooperation exist with Chinese enterprises/stakeholders in infrastructure development projects?
6. How does China navigate the Ethiopian political landscape as a foreign player?
7. Over the past decades, China's engagement with a majority of African countries was based in most cases on natural resources/commodity exchange. Unfortunately, Ethiopia is poorly endowed with such resources, but surprisingly is one of the top destinations of Chinese finances, why is Ethiopia so important to China?
8. Ethiopia is one of the top recipients of Chinese finances in Sub-Saharan Africa and some speculations suggest that Chinese influence in Ethiopia has grown tremendously. But to the contrary, some accounts depict Ethiopia as the most influential Sub-Saharan Africa country that meaningfully engages with China towards its intended objectives and outcomes (the notion of African agency): How does Ethiopia manage that?
9. Ethiopia-China relations is old, but recently we have seen the relations extending to wind energy infrastructure sector. In 2009 the Ethiopian government awarded Chinese enterprises the contract to construct Adama 1 and Adama 2 wind farms. Based on your opinions, why did the Ethiopian government award the contract to Chinese enterprises and not any other, such as European or American enterprises?
10. Adama 1 and Adama 2 wind power plants are the first Chinese wind energy projects in the entire Sub-Saharan Africa built by Chinese technology. Based on your opinion, what factors motivated the Chinese enterprises to develop those two wind farms?
11. In your own opinion, why did the Ethiopian government choose to develop those two wind farms?
12. Where does negotiations for infrastructure projects such as wind power plants and any other, normally begin?
13. What impacts has Chinese developed infrastructure had on citizen and civil society engagement in public consultation processes? And do the ordinary citizens have power to demand infrastructure such as energy, road, water etc.?
14. The questions of quality and sustainability, negotiations and ownership between Africa and China engagements remains some of the most critiqued issues (Ethiopia included). How should, Ethiopia strategically position itself in its engagement with China to ensure mutual benefit and win-win cooperation as envisaged by Chinese Africa Policy.
Interview questions for Ethiopian Environmental Protection Agency; Ministry of Environment, Forest and Climate Change and other related players

- Name
- Gender
- Age
- Level of Education
- Organisation/Institution
- Position at the Organisation/Institution
- Time worked for the Organisation/Institution
- Primary responsibilities

1. As the Ethiopian Environmental Protection Agency/Ministry of Environment, Forest and Climate Change, what is your overall role in the energy sector?

2. In 2009 the Ethiopian government awarded Chinese enterprises the contract to construct Adama 1 and Adama 2 wind farms. Based on your opinions, which factors led to the Ethiopian government to award the contract to Chinese enterprises?

3. The two wind farms are the first Chinese wind energy projects in the entire Sub-Saharan Africa built by Chinese technology. Based on your working experience what motivated the Chinese enterprises involvement in (construction/investment/sub-contract) the wind farms?

4. Based on your own opinion, which factors motivated the Ethiopian government to construct Adama 1 and Adama 2 wind farms?

5. Please identify stakeholders you engaged with in the case of Adama wind farms
   a. Stakeholder 1
   b. Stakeholder 2
   c. Stakeholder 3
   d. Stakeholder 4
   e. Stakeholder 5
   f. Stakeholder 6
   g. Stakeholder 7
   h. Stakeholder 8
   i. Stakeholder 9
   j. Stakeholder 10

6. For each of the stakeholders, please identify their roles and responsibilities in the case of Adama wind farms
   a. Stakeholder 1
   b. Stakeholder 2
   c. Stakeholder 3
   d. Stakeholder 4
   e. Stakeholder 5
   f. Stakeholder 6
   g. Stakeholder 7
   h. Stakeholder 8
   i. Stakeholder 9
   j. Stakeholder 10

7. For each of the stakeholder you have identified, which had the power to influence decisions during your engagement with them?

8. What Environmental and Social Impact Assessment were carried out before and after the construction of the two wind farms? Who carried out the Impact Assessment and what were the outcomes?

9. Were there any public consultation before or after the construction of the two wind farms?

10. How was legal access to land for the wind farms negotiated?

11. What are the impacts of the two projects on citizen and civil society engagement in consultation processes?

12. What risks, challenges and uncertainties did you encounter on the two wind farms? How were these challenges addressed?

13. Lastly, what will you recommend for Impact Assessment with regards to future wind energy projects in Ethiopia?