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1 **Environmental justice and the politics of pollution: the case of the Formosa Ha**
2 **Tinh Steel pollution incident in Vietnam**

3

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13

14 **Abstract**

15

16 Research on environmental justice in authoritarian regimes, and in particular on how
17 transnational networks support problem framing and claims-making in the absence of
18 state-led democratic participation instances, is limited. This article uses the case of
19 untreated wastewater from a steel mill owned by Taiwanese conglomerate Formosa
20 Plastics Group, which caused mass fish deaths along coastal provinces in Vietnam in
21 2016, to explore how civic groups and local communities problematise official accounts
22 of events and engage with transnational networks to make claims to environmental
23 injustice. The paper highlights local narratives about the adverse impacts of the disaster
24 on residents' livelihoods and wellbeing, controversies over the causes of and
25 responsibility for the disaster, and the role of transnational alliances with Taiwan in

26 sustaining and magnifying claims to injustice. We argue that viewing issues such as the
27 Formosa steel incident through a transnational environmental justice lens illuminates
28 the effect of global and national processes of economic reform in shaping uneven
29 environmental and social impacts from new infrastructure developments. We also argue
30 that thinking in terms of transnational networks can make sense of the spaces which
31 can emerge for claims-making in authoritarian contexts, where democratic participation
32 instances and access to knowledge may be restricted.

33

34 Keywords: environmental activism; environmental justice; environmental politics;
35 politics of knowledge; transnational network; Vietnam.

36

37 1. Environmental justice in a global context

38

39 Environmental justice has been a central organizing discourse of environmental and
40 social movements for the past three decades. Having emerged as an explicit framework
41 in the American context as a combination of environmental activism and civil rights
42 advocacy (Taylor, 2000), environmental justice has since spread across the globe and
43 been applied to a wide range of issues. **Yet empirical research on environmental justice**
44 **in the context of authoritarian regimes and less-developed countries is more limited.**
45 **With increasing awareness that much infrastructural and socio-economic development**
46 **globally is taking place in authoritarian contexts (Doyle and Simpson, 2006; Huang and**
47 **Liu, 2020; Moser, 2020), this is an important gap in the literature.** In response, this
48 paper assesses claims to environmental injustice associated with the Formosa Ha Tinh
49 Steel (FHS) plant in Ha Tinh Province, Vietnam. Located on Vietnam's North Central
50 Coast, the FHS plant is operated by the Taiwanese Formosa Plastics Group. The plant

51 has been at the centre of high-profile claims to environmental injustice, with residents
52 and fishers claiming that discharges from the plant into the sea have killed fish and
53 caused health problems. As well as speaking to the body of existing literature on
54 transnational environmental justice by adding an example of claims to injustice between
55 a higher-income east Asian and mid-income south-east Asian nation, the FHS incident
56 is a valuable case to evaluate the role of transnational alliances in supporting claims-
57 making around environmental injustice for victims living in an authoritarian context.

58

59 Outside of a Western context, environmental movements in the Global South
60 increasingly pursue human rights alongside environmental justice. Justice and
61 democracy are key themes and practices within these movements. Adeola (2000)
62 declares that environmental activists, powerless indigenous populations, and other
63 minorities face concomitant threats of environmental injustice and human rights abuses,
64 especially under authoritarian regimes. Adeola argues for the need for stronger
65 international norms protecting human rights to a safe and sound environment, and that
66 environmental injustice needs to be included as a component of human rights protocols.
67 Indeed, Pellow (2018) notes that social movements and organizations working toward
68 environmental justice frequently produce imaginary and material linkages among
69 advocates over space and across scales.

70

71 At the same time, Bucchi and Neresunu (2008) believe that science and technology
72 have become resources for the identity, organization, and action of new environmental
73 justice movements; and that different forms of civil society participation can exist
74 depending on the local context and nature of the controversy at hand. The key question,
75 Bucchi and Neresunu (2008: 454-455) believe, is “under what conditions do different

76 forms of public participation emerge” rather than “which model of participation
77 accounts best” for expert-public interactions. Given the shortage of empirical research
78 into environmental justice in authoritarian regimes and less-developed countries, and
79 the nascent field of research into the contribution of transnational networks of activism
80 for problem framing and knowledge production, this is an important research challenge.
81 Following Bucchi and Neresunu, as well as exploring how different forms of civic
82 actions for environmental justice emerge in specific contexts, there is hence an
83 imperative to understand how exactly science and technology can be appropriated by
84 environmental justice movements - both to provide evidence for claims to injustice
85 within existing fora, and to create new platforms on which to raise claims to injustice
86 in the absence of state-led democratic instances.

87

88 In response, this paper evaluates the environmental justice dimensions of the pollution
89 controversy at the Formosa Ha Tinh Steel (FHS) plant in Ha Tinh Province, Vietnam.
90 A discharge from the steel plant has been claimed to have caused mass fish dieoffs,
91 making residents ill and destroying the livelihoods of coastal communities dependent
92 on fisheries. We examine how civic groups and local communities have made claims
93 to environmental justice and built transnational alliances to challenge states and
94 corporations. In particular, we offer insights into the contribution of transnational
95 movement networks and alliances in creating new transnational public spheres and
96 facilitating transmission of ideas and knowledge claims, in situations where features of
97 democracy in the state level are limited.

98

99 2. Discourses on transnational environmental justice

100

101 We evaluate the FHS incident through the lens of environmental justice. Schlosberg
102 (2004; 2007) argues that inequitable distribution, a lack of recognition and a decline in
103 participation are interwoven in political and social processes. By challenging social
104 structures and institutions that exclude involvement in decision-making processes, it is
105 argued that the environmental justice movement can lead to transformation on different
106 levels – the individual, the group and the community, ultimately influencing institutions,
107 government and social structure (Cole and Foster, 2001: 14-5). Approaching the FHS
108 incident through environmental justice thus allows us to understand the contours of the
109 controversy in relation to a full suite of formal and informal political and social
110 processes operating at different spatial scales; and identify potential pathways to
111 transformative action in response to claims to injustice associated with the plant.

112

113 Thinking of the FHS incident in terms of justice can be supported by looking in
114 particular to the literature on transnational environmental justice movements. Ureta et
115 al (2020) explain that the transnational environmental justice regime is slowly rising,
116 with a trend towards corporations being sued locally by the overseas victims of their
117 alleged misbehaviours. A fundamental driver behind this trend, Pulido (1994) argues,
118 is that processes of restructuring, deregulation and internationalisation add a
119 transnational element to environmental injustice, which stretch the limits of what can
120 be understood and achieved through traditional appeals to procedural justice. Such
121 arrangements give rise to what Morello-Frosch (2002) terms a ‘political economy of
122 discrimination’, whereby economic restructuring and associated industrial location
123 behaviour can shape the distribution of people and of pollution.

124

125 Walker (2009: 371) hence summarises that transnational environmental justice thought
126 is concerned with “the positioning of transnational responsibilities for harm in distant
127 locations firmly within the frame, connecting globalized economic and political
128 relations with their environmental consequences.” A key argument within this body of
129 literature is that it is not sufficient to identify injustice in distribution of environmental
130 and health impacts, or point out injustice in processes, across country borders. Rather,
131 there is a need to account for *why* flows of technology and materials happen (Iles, 2004).
132 This includes illuminating patterns (such as perverse regulatory incentives) that
133 generate these flows (Walker, 2009); and understanding how the lack of democracy
134 within private production decisions may lead to claims to injustice (Pulido, 1994).

135

136 Nonetheless, the literature also identifies challenges for transnational environmental
137 justice scholarship and practice. Ureta et al (2020) argue, in the context of toxic harm
138 litigation, that the long timeframes, spatial distance and regulatory differences
139 associated with transnational justice claims can make it even more difficult to prove
140 beyond doubt that certain harm has been caused, because the effects of contamination
141 do not appear immediately and the victim often only becomes aware of the harm after
142 some time has passed. Ureta et al also hold that transnational claims to environmental
143 injustice are complicated by the need to move victimization devices (i.e. the ‘evidence’
144 and grounds on which claims to injustice are based) to distant locations, with different
145 political and cultural contexts, from that in which the harm occurred. Furthermore,
146 Schlosberg (2013) adds that transnational environmental justice analysis ought to
147 encompass the role of creativity and networking in responding to claims to injustice. In
148 other words, there is an imperative to understand actions that may be taken to redress
149 harm to victims of companies’ transnational activities.

150

151 As such, consideration of environmental justice in the FHS incident needs to be aware
152 of: (a) the potential limitations of the state in being able to protect the natural
153 environment necessary for local residents' wellbeing, community cohesion and sense
154 of identity; (b) the lack of fora through which claims to harm or injustice may be
155 contested domestically, given the authoritarian nature of Vietnam; and (c) the
156 challenges of articulating claims to injustice across scales, cultures and political
157 systems given the transnational nature of the project. In this regard, a transnational
158 environmental justice alliance could send resources to disadvantaged people at the
159 bottom of the power hierarchy, and challenge the power of growth-oriented government
160 institutions and investors (Schnaiberg and Gould, 1994). The linkages formed with
161 nations that share common experiences and develop strategies for environmental
162 problems have been regarded as a significant evolution in the environmental justice
163 movement (Miller, 1993: 133-4). It is hence crucial to explore how grassroots groups
164 organize and link their struggles to issues of environmental justice, and consider how
165 these actions may shape policy and knowledge production in the face of the challenges
166 in a changing world.

167

168 To organize these thoughts within the confines of a paper, we structure our analysis
169 around the three core components of Walker's (2012) framework for 'claim-making'
170 in environmental justice. Walker (2012: 40) points out that the notion of "claim-making"
171 brings attention to the nature of knowledge and reasoning that is intrinsic to working
172 with environmental justice. Walker introduces and exemplifies a framework for
173 analyzing the constituent elements of environmental justice claim-making and how they
174 interrelate. The framework has three elements. First, claim-making concerned with

175 notions of justice; normative judgements about “how things ought to be”. Second,
176 claim-making about forms of empirical evidence; descriptions of inequalities in “how
177 things are”. Third, claim-making about process; explanations for “why things are how
178 they are”, or how patterns of injustice are produced and sustained. According to Walker,
179 concepts of distributive justice are central to environmental justice claim-making in
180 these multidimensional, layered and interacting ways. Other dimensions of distribution
181 interact with these distribution of the direct environmental burdens or benefits, which
182 include vulnerability, need and responsibility. Indeed, Walker notes that environmental
183 justice claim-making also involves procedural justice and issues of recognition. In
184 Section 5, we therefore evaluate the FHS case through these three dimensions of claims-
185 making, and use this to draw out wider insights for transnational environmental justice
186 in a potentially challenging context such as Vietnam.

187

188 3. Vietnam and the Formosa Ha Tinh Steel plant

189

190 Vietnam is a one-party socialist state officially espousing communism. In 1986, the
191 Vietnamese government initiated a series of economic and political reforms, known as
192 *Doi Moi*, which began Vietnam’s path towards integration into the world economy.
193 Since 2000, Vietnam’s economic growth rate has been among the highest in the world.
194 Yet there have been claims to injustice around restricting basic rights, including
195 freedom of speech, opinion, association, and assembly; removing farmers’ land to
196 development projects without adequate compensation; and preventing workers from
197 forming independent unions (Human Rights Watch, 2017).

198

199 The Formosa Plastics Group initially planned to construct a steel plant in an offshore
200 industry area of Yunlin County, Taiwan in 2004. Although the plant was proposed as a
201 major priority investment project within Taiwan, the Environmental Impact
202 Assessment Committee believed that the project might significantly negatively impact
203 on the environment and suggested the need for a second-stage reviewing procedure.
204 With Formosa Plastics Group concerned about the length of the second-stage review
205 and the potential for public opposition, and also noting favourable construction and
206 labour costs outside of Taiwan, the company decided to take the investment project
207 overseas instead.

208

209 Accordingly, the Formosa Ha Tinh Steel plant was set up in 2008 and located in Ha
210 Tinh Industrial Park, making it one of the largest foreign direct investments in Vietnam
211 as well as one of the largest steel plants in Southeast Asia. The plant is located in the
212 Vung Ang Economic Zone in Ha Tinh Province, thereby taking advantage of associated
213 infrastructure, local tax policies, and preferences in tariffs with countries belonging to
214 the ASEAN Free Trade Area.

215

216 In April 2016, an estimated one hundred tons of dead fish appeared in Ha Tinh Province,
217 near to the steel plant, and in three other provinces, Quang Binh, Quang Tri, and Thua
218 Thien Hue, along a 200 km (125 miles) stretch of coast. The incident sparked rare
219 protests in Vietnam. Local residents expressed their anger that the Vietnam
220 government's preliminary investigation found no link between the plant and the
221 mysterious fish deaths, arguing that the government and FHS had attempted to cover
222 up the truth. Since April 2016, there have been thousands of anti-Formosa protests in
223 Hanoi, Ho Chi Minh City, and Ha Tinh Province, although these have been swiftly

224 broken up by authorities and many protesters briefly detained. A group of protesters,
225 including Vietnamese migrant workers in Taiwan, and environmental groups also
226 rallied outside a venue in Taipei City where the company held its meeting in Taipei
227 City. In July 2016, a Vietnamese government minister, Mai Tien Dung, told reporters
228 that wastewater containing toxins such as cyanide and carbolic acids was released into
229 the sea during a test run at the plant. FHS admitted it had caused the environmental
230 disaster and pledged USD 500 million to clean up the environment and compensate the
231 affected people, including helping fishers to find new jobs (Reuters, 2016).

232

233 About 44,000 families were affected by the FHS pollution. In the neighbouring villages
234 around the FHS plant, the majority of residents live on fishing and farming. Operations
235 of almost 2,600 fishing boats were halted, creating unemployment for around 3,000
236 labourers. Many people have been indirectly affected by the disaster, such as the
237 tourism industry and seafood farming. By November 2016, the local unemployment
238 rate soared 15 times and 83% of residents' income had fallen in the four affected
239 provinces (Viet Nam News, 2016).

240

241 4. Understanding an environmental controversy in an authoritarian context

242

243 The overall aim of the paper is to understand the nature of claims-making around
244 environmental justice in an internationalising yet authoritarian country context, and to
245 evaluate how transnational alliances can support purported victims of environmental
246 justice in the absence of state-led democratic participation instances. To achieve this,
247 we draws on data from two techniques: documentary research and in-depth interviews.

248

249 4.1. Documentary research

250

251 Firstly, due to potential ethical and logistical challenges associated with accessing
252 participants given the country context, documentary research was undertaken to
253 understand the claims to environmental injustice (and the counter-arguments) presented
254 by key actors in the debate. Material was selected to reflect the breadth of forms and
255 spaces in which claims to environmental injustice around the FHS plant were made –
256 in Vietnam itself, online, and in Taiwan.

257

258 The documentary analysis involved examining relevant Vietnamese and Taiwanese
259 local news reports and international news reports, film and documentary materials,
260 reports and campaign materials from environmental groups; and websites of the
261 Formosa Plastics Group and non-governmental organizations for press releases and
262 petition statement. The material was used interpretatively – that is, using the contents
263 of documents and media reports as a tool to help understand the contours of the debate
264 and assess the nature of the claims to environmental injustice made by different actors,
265 rather than considering the broader influence or the audience of the articles.
266 Documentary material was utilised to access to both ‘official’ narratives around the
267 incident and also claims to environmental injustice, and to give insight into the types of
268 arguments made by different people involved in the controversy.

269

270 Accordingly, a breadth of materials reporting on the FHS events were selected.

271 Internationally, The Guardian, Reuters, Radio Free Asia,¹ and Viet Nam News were

¹ Radio Free Asia’s mission is to provide accurate and timely news and information to Asian countries whose governments prohibit access to a free press. RFA is funded through an annual grant from the United States Agency for Global Media, an independent U.S. agency; RFA has a legislative firewall that

272 reviewed. Taiwanese media assessed were The News Lens, China Times, and Focus
273 Taiwan; as well as a special programme on the FHS pollution case, made by Taiwan
274 Public Television Service and interviewing local residents, victims and activists.

275

276 For greater insight into the nature of claims to environmental injustice being made,
277 Taiwanese citizen and alternative media were reviewed, namely Taiwan Environment
278 Information Center; Civilmedia@Taiwan² (report on protest and social movement);
279 and the websites of the Environmental Jurists Association (an association of lawyers,
280 experts and scholars who assisted Vietnamese plaintiffs to file a lawsuit against FHS in
281 Taiwan District Court) and the Taiwan Association for Human Rights (who appealed
282 to both the Vietnamese and Taiwanese governments in relation to the pollution
283 incident). A report published by Green Trees (a non-profit, civil society organization
284 working in the field of environmental protection in Vietnam) providing an independent
285 investigation into the FHS event by local scientists, scholars and NGOs was also
286 reviewed. **A full inventory of sampled content is included as Supplementary Data.**

287

288 **Material was sampled from April 2016 to August 2017, covering the full span of time**
289 **from when the FHS incident first came to light in international media through to the**
290 **formation and actions of the transnational alliance. Covering this time span also allowed**
291 **assessment of how the focus of media reporting shifted as the FHS incident developed.**
292 **In April 2016, local and international media focused on factual reporting of the FHS**

bars interference by U.S. government officials in the execution of RFA's mission of providing reliable journalism to audiences otherwise deprived of uncensored, accurate press.

² an independent and alternative media, which aims to report social movements which are ignored by mass media to highlight citizen values and claims of the movements and call for human rights, environment, culture, migrant workers, social welfare, gender, aboriginals and so on. See <https://www.civilmedia.tw/archives/85460>

293 incident and controversy over the pollution source. During June 2016, media reports
294 focused on the development of the incident, fishers losing their jobs, and the
295 Vietnamese government demanding FHS to pay USD 500 million in compensation.
296 From October 2016 to June 2017, Taiwanese media reports focused on a faith leader
297 coming to Taiwan to seek assistance; reviewing the Taiwanese government's "New
298 Southbound Policy"; and disclosing possible corruption within the Vietnamese
299 government.

300

301 Within the news sources sampled, relevant articles and media reports were identified
302 by searching for specific keywords, including "Formosa Ha Tinh steel incident",
303 "Vietnam pollution", "dead fish", "water pollution", "toxic waste spill" and "marine
304 life disaster". This breadth of keywords was selected to (a) understand the incident itself;
305 (b) assess how media outlets reported issues around the incident; and (c) identify the
306 sources of information used by news reporters and journalists within their reporting.
307 Articles were screened by cross-verification to check whether the same event or
308 keywords appeared in more than two different news outlets. It was found that journalists'
309 sources of information included NGOs, a faith leader, FHS itself and Vietnamese
310 government. Accordingly, the contents of the news reports were then further followed
311 up via interviews.

312

313 4.2. Interview research

314

315 The documentary analysis was supplemented with four interviews (two extended and
316 two shorter) in autumn 2017, following purposive sampling. The two longer interviews
317 were undertaken with a faith leader involved in making links with Taiwan to raise

318 awareness of the case; and a representative of an NGO supporting Vietnamese victims
319 from within Taiwan. Shorter interviews were conducted with a Taiwanese businessman
320 who works in Vietnam; and with a Taiwanese public health scholar who has conducted
321 long-term research on health risk assessment of pollution in Taiwan. These shorter
322 interviews were intended to provide context to how the FHS plant and Formosa Plastics
323 Corporation were viewed in Vietnam, and the historical context of their operations.
324 Interviews were semi-structured, covering how the interviewees felt about the pollution
325 controversy and citizen actions; how they viewed the ways the Vietnamese government
326 and FHS dealt with the event; and how the Vietnamese groups came to Taiwan to seek
327 assistance.

328

329 4.3. Analysis and Ethics

330

331 We use interpretive analysis, which views social reality as being embedded within a
332 social setting, and focuses on language and meanings from the perspective of activists
333 and participants involved in the social phenomenon. Bhattacharjee (2012) explains that
334 interpretative analysis involves (a) viewing the phenomenon from the subjective
335 perspectives of the participants; and (b) understand the meaning of participants'
336 experiences within a rich narrative story. Accordingly, insights from documentary
337 analysis and interviews are integrated into a narrative of different components of
338 environmental injustice claims, which forms the basis of Section 5.

339

340 Related to the above, it is also important to clarify at this juncture the grounds on which
341 we frame our research in terms of a 'disaster'. Perry (2007:2) argues that "in reality
342 anyone has the right to propose a definition of disaster, and the definition proposed

343 depends on the purposes or interests of the definer.” In keeping with the interpretative
344 analysis framework and bearing in mind our interest in *claims* to environmental
345 injustice, we do not seek to impose an ‘official’ definition of whether or not the FHS
346 incident ought to be considered a disaster. Rather, the term ‘disaster’ is used in this
347 paper to reflect situations in which actors have themselves viewed the FHS incident as
348 a disaster.

349

350 The research follows the informed consent principle. Interviewees were provided with
351 sufficient information on the research so that they could make an informed and
352 voluntary decision to participate. Interviewees were emailed the interview questions in
353 advance, and the interviews were audio recorded for further analysis. Given the
354 sensitivities of the topic, extra caution has been taken not to present any interview
355 extracts or information in a way that may make participants’ true identities obvious or
356 apparent. Material from documentary analysis is cited in the text as appropriate, and is
357 based on publicly-available material.

358

359 5. Breaking down the nature of claims-making around the Formosa Ha Tinh Steel
360 incident

361

362 5.1. Empirical evidence and descriptions of inequalities

363

364 We first address claim-making about forms of empirical evidence. Walker (2012: 53)
365 explains this element of claims-making relates to “evidence of how things are, in
366 particular, what is unequal and how this inequality is patterned and experienced by
367 different social groups.”

368

369 Vietnamese activists, local residents, and environmental groups in Taiwan have
370 narrated the great negative impact that they believe the FHS incident has had on the
371 environment, marine ecology, health of local residents, and their work and living.
372 Indeed, the visible nature of changes in the sea and fish form the basis for fishers' claims:

373

374 The sea has three colors – black, red, and purple. When I pulled out the fishing net,
375 it got sticky toxins, yellow toxins, and muddy toxins. My hands touched those
376 toxins and became cankered and itched when I came back home. It has been one
377 month since the fish death accident happened, and we still cannot go fishing.
378 (Local fisher, Taiwan Public Television Service, 2016).

379

380 Notable here is that the fisher's claims to pollution – and subsequent effects on his
381 livelihood – is based on how he sees change in the colour of the sea and feels something
382 different on his body. Elsewhere, too, embodied and/or anecdotal evidence forms the
383 basis for locals' claims to ill health from the incident. An accident whereby one diver
384 working for the steel factory died suddenly without clear reasons caused villagers'
385 anxiety near Ha Tinh Province. According to one local resident and the dead diver's
386 friend who is an employee of FHS, the diver felt a suffocating sensation and itchiness
387 after diving. On the second day, the diver felt stomach aches and again a suffocating
388 sensation. He then mentioned back pain, and subsequently died. One local woman also
389 mentioned an illness caused by the pollution:

390

391 "I did not feel uncomfortable after I had eaten the fish I caught during the first
392 week of the accident. Then I got abdominal pain, and my body felt pain, too. Since

393 I found dead fish in the sea, I stopped eating the fish and did not feel pain, but I do
394 feel dull and slack.” (Taiwan Public Television Service, 2016).

395

396 The main way communities and fishers evidence their claims to environmental injustice
397 arising from the FHS plant is thus through descriptive evidence of changes in the coastal
398 and marine environment, and especially intuitions about the effects on their own bodies.

399 Such embodied and personal accounts are placed in contrast to explanations for the
400 environmental changes grounded in ‘scientific expertise’ or ‘official’ observation. For
401 instance, a small number of Taiwanese sceptics argue that it may be natural red tide
402 processes that caused the fish to die. A Taiwanese marine ecology expert mentioned
403 that red tide might be caused by copper ions, which cause oxygen to be reduced in
404 seawater, and hence that it was necessary to figure out where the copper ions came from
405 (The News Lens, 2016a).

406

407 Similarly, in April and May 2016, the Vietnamese government invited experts from
408 Germany, Japan, the United States and Israel to inspect the FHS site in an attempt to
409 find the cause. A joint force between local authorities and the Institute of Environmental
410 Technology announced their testing results and affirmed that the reddish streak did not
411 start from FHS’s sullage pit. The institute’s inspector said his taskforce team had
412 arrived at the site to monitor the discharge of FHS and took samples for testing three
413 times in a month and at different times in the day, but no link between the streak and
414 FHS waste water was discovered. Vietnamese authorities claimed from the first and
415 second investigation results that the water quality near the steel factory and the sullage
416 pit fulfils Vietnamese regulatory standards, and that the doses of detected toxic
417 compound were lower than the standard values (Radio Free Asia, 2016). Moreover,

418 from mid-May 2016, the authorities expanded the testing sphere from water quality
419 testing to an overall review of the steel factory, including records of total wastewater
420 discharge, records of downstream contractors pickling wastewater, and the
421 environmental safety of the factory (The News Lens, 2016a).

422

423 Evidence to counter claims of environmental injustice from the FHS plant is hence
424 legitimised by ‘expert’ observation and ‘systematic’ monitoring. However, as noted by
425 Walker (2012) and others (e.g. Morris-Suzuki, 2014; Fan and Chiu, 2019), techno-
426 scientific evidence based on monitoring results is neither objective nor value-neutral.

427 Another core component of claims-making is NGOs’ and communities’ arguments that
428 they have been actively prevented from producing ‘scientific’ evidence of their own.

429 The director of one Vietnamese environmental organization mentioned that when his
430 research team collected the local fish sample and sent it to the national level laboratory
431 for testing, no laboratories dared to take the case. Similarly, whilst local residents’ claim
432 their livelihoods have not yet improved and cannot find reasons for why their health
433 conditions have gotten worse, NGOs argue the authorities do not allow civic groups to
434 initiate any independent survey (Taiwan Environmental Information Center, 2017).

435 According to the interviewed faith leader, anyone who tried to investigate the pollution
436 event will be regarded as exhibiting conduct against the government, and one person
437 has even been jailed for 11 years.

438

439 The FHS controversy hence shows the use of different types of evidence to support and
440 counter claims to environmental injustice. On one hand, community members and
441 fishers draw largely on experiential and embodied evidence to narrate a story of sudden
442 environmental change and the effects it has had on them; whereas ‘official’ narratives

443 from more empowered actors use appeals to expertise and systematisation to legitimise
444 their evidence. Furthermore, civil society organisations claim they are actively
445 prohibited from the process of creating their own observation-driven evidence to assess
446 communities' claims. This issue of process forms the next section of analysis.

447

448 5.2. Processes and claims to how patterns of injustice created and sustained

449

450 We now turn our attention to a second element of claims-making, specifically claims
451 about process. Walker (2012: 64) explains this area of claims seeks to “explain the
452 causes of environmental inequality and injustice, how patterns of inequality are
453 produced and reproduced, and why some in society suffer the downside and injustice
454 [...] whilst others do not.” Reflecting the imperative in the transnational environmental
455 justice literature to understand how patterns of uneven development may lead to
456 differing health and ecological effects over space (Pulido, 1994; Iles, 2004; Walker,
457 2009), we understand ‘process’ in this sense to refer to systemic mechanisms leading
458 to claims to injustice. These may manifest themselves in national-level development
459 imperatives promoting economic development, slacker regulatory regimes, or
460 transnational and multinational companies operating outside of regulatory oversight.

461

462 A first contestation in this regard relates to the whole process of developing FHS, and
463 whose interest the plant serves. In ‘official’ narratives from FHS and the Vietnamese
464 authorities, the FHS plant is portrayed as vital to alleviating socio-economic challenges
465 in Ha Tinh Province, by creating up to 100,000 jobs and facilitating wider trade in the
466 Vung Ang economic zone. The Green Trees NGO too takes a pragmatic stance,
467 maintaining that Vietnam as a middle-income country still needs foreign factories to

468 bring about job opportunities and economic growth and thus improve infrastructure and
469 peoples' living quality. Green Trees hence called for the Vietnamese government to
470 evaluate losses, provide people with assistance, undertake environmental monitoring,
471 and let fishers know when they could go fishing again, rather than simply asking all
472 foreign factories to be closed (Green Trees, 2016). **This line of argumentation seems to**
473 **(albeit reluctantly) view processes of transnational technology and material flows, and**
474 **globalized labour and production markets, as necessary to Vietnam attaining its**
475 **economic reform and socio-economic development goals.**

476

477 By contrast, communities, fishers, local activists and civil society organisations have
478 questioned whether the process of 'development' associated with FHS does benefit
479 them, or whether it reinforces or even exacerbates existing inequalities. **This reflects**
480 **research elsewhere (e.g. Giuliani et al, 2019; Bruun, 2020) around Vietnam's Doi Moi**
481 **economic reforms, questioning whether national-level socio-economic development**
482 **imperatives and associated processes of globalization in Vietnam are actually in the**
483 **interests of the less advantaged members of society.** Aside from the pollution incidents
484 and claims to loss of livelihood, one local resident mentioned that the government wants
485 to pull down houses for the site of the second-phase construction project, but that the
486 compensation paid is at too low a level to be able to be able to build a new house (local
487 resident, Taiwan Public Television Service, 2016). One man expressed this difficult
488 position:

489

490 Children used to go to the school here, but the school has been pulled down. The
491 government asked us to go to a school 20 miles far away from here and will not
492 allow children to go to another school near here. The government forced the

493 children to study at a school in arranged areas for those who have to relocate in
494 order to make us feel anxiety and to actually relocate ourselves. (Local resident,
495 Taiwan Public Television Service, 2016)

496

497 Furthermore, during a public speech, a representative of FHS caused public outrage by
498 asking citizens to ‘choose’ between a steel factory and shrimp farming (China Times,
499 2016). In response, many people indicated their positions, saying “I choose fish”, and
500 used social media to mobilise the concerned public to protest (The News Lens, 2016b).
501 A key faultline within the FHS debate concerns the extent to which the project as a
502 whole – and not just the pollution incident – enhances quality of livelihood for those
503 most proximate to the plant and suffering the greatest economic disadvantage.

504

505 A second area in which issues of process have come to the fore concerns who is
506 responsible for the events at FHS. **This again reflects the core ideas of transnational
507 environmental justice thought with regard to how process (Pulido, 1994), responsibility
508 (Walker, 2009), and burdens of proof (Ureta et al, 2020) play out across national
509 boundaries and over scales.** On one hand, in a report called “An Overview of the Marine
510 Life Disaster in Vietnam”, Vietnamese environmental NGO Green Trees (2016)
511 indicated that even if FHS followed the governmental regulation and the treated
512 wastewater was lower than standard values, it still might cause fish to die, because the
513 amount of wastewater emissions was very high and the sea was unable to dilute all the
514 pollutant compounds. Green Trees emphasized that if the wastewater was higher than
515 regulatory standard values, then FHS needed to take responsibility. However, if FHS
516 obeyed Vietnam’s regulatory standards, but still caused fish to die, then Green Trees
517 argues it is the government’s responsibility, as the NGO doubts that Vietnam’s

518 environmental regulations are stricter than the government’s license for the plant’s
519 emission regulatory standards and questions the government taking favour with the
520 firm’s environmental management.

521

522 Reflecting local activists’ concerns about the complicity of the Vietnamese government
523 in suppressing claims to environmental injustice associated with FHS, Green Trees too
524 have a complex explanation for the processes through which injustices associated with
525 FHS are created and sustained, one in which both the operator and the authorities are
526 potentially responsible. On the other hand, statements by the authorities in the press
527 appear to move towards a simpler explanation for any harms caused, one where FHS is
528 solely responsible and where the issue is contained within Vietnam and indeed the steel
529 plant grounds. Vietnamese officials were argued to have rejected FHS’ proposal for a
530 third set of tests to confirm the relationship between their plant and the discharges,
531 pointing out that FHS’ Korean contractor, POSCO, subcontracted one Vietnamese
532 pickling wastewater factory for cleaning lines, and that another subcontractor Unico
533 has admitted pouring wastewater into a ditch (The News Lens, 2016a). Vietnamese
534 officials believed that the wastewater contained copper ions that caused red tide and
535 large amounts of dead fish and asked FHS to take responsibility for the compensation,
536 emphasizing (in spite of FHS’ claims that the Korean contractor ought to take
537 responsibility) that “it happened in the factory area and the Formosa Steel Corporation
538 should take responsibility.”

539

540 The ‘process’ element of claims-making around the plant thus rests on the question of
541 whether Vietnam’s engagement with transnational corporations as part of economic
542 reform aids the socio-economic development of peripheral areas in the country, or

543 whether it in fact enhances existing inequalities and creates new environmental
544 injustices. Within this, similar to the different types of evidence used for claims-making,
545 there are multiple interpretations of process and responsibility around the FHS incident.
546 On one hand, the ‘official’ narrative views the plant as bringing social and economic
547 uplift to a peripheral area of Vietnam. By placing responsibility for the pollution
548 incident with one organisation’s operations in a single bounded location, Vietnamese
549 authorities are placed as passive recipients of the actions of a transnational corporation
550 operating within their boundaries. On the other, claims to injustice in process around
551 the FHS pollution incident argue that the processes of economic reform and
552 globalisation disproportionately burden rural host communities, and position the
553 Vietnamese authorities as somehow complicit in causing the pollution incident to
554 happen and obscuring its consequences.

555

556 5.3. Normative judgements about how things ‘ought’ to be

557

558 We finally assess the third component of the Walker (2012) framework, which concerns
559 the role in claims-making of normative judgements about how things ‘ought’ to be. As
560 set out earlier, what is noteworthy in the FHS case are restrictions in state-led
561 democratic participation instances that allow discussion of how things ‘ought’ to be,
562 and the creative and networked transnational responses (Schlosberg, 2013) which have
563 emerged in response to support claims to injustice. As reported in *The Guardian*
564 newspaper in 2017, a blogger commenting on the disaster claimed:

565

566 “At the beginning, the government neglected the disaster despite the evidence.

567 Now, it uses all possible means to stop affected villagers from complaining. Five

568 people have been arrested. They are stopping citizens from seeking justice” (The
569 Guardian, 2017).

570

571 An interviewed faith leader similarly alleged:

572

573 Anyone who talks about the FHS pollution event will face governmental pressure
574 or even be jailed. The Vietnam government has sheltered FHS, because at the
575 beginning the government said it has no link to FHS. So far, no one knows whether
576 the seawater is safe, because the government does not declare what toxins the FHS
577 wastewater contains, how to remediate the sewage, and whether the water is safe
578 or not. (interview with faith leader)

579

580 Likewise, local residents noticed plainclothes police surveilling their whereabouts, and
581 alleged the government were hiring informants as a patrol force in order to prevent
582 protesters entering FHS to cause damage (Taiwan Public Television Service, 2016). In
583 this context, non-state organisations (especially those located outside of Vietnam) and
584 transnational alliances have come to have a pivotal role in working with communities
585 and local activists to find a platform from which to make claims about how things
586 ‘ought’ to be.

587

588 A key institution in this regard has been Catholic Churches in Vietnam, who have made
589 efforts to make nature safer and healthier within the country (Ngo, 2017). Similar to the
590 United Church of Christ fighting against toxic pollution in America thorough their
591 Commission on Racial Justice who uncovered racial biases in exposure to toxic wastes
592 (United Church of Christ, 1987), Catholic churches have been concerned about

593 pollution issues in Vietnam for a long time. A bishop of the local parish sent messages
594 to priests and church members in many other places. Bishop and church members came
595 to Taiwan to form an alliance with Taiwan's environmental protection groups through
596 international alliances. They held a press conference in the Legislative Yuan (Taiwan's
597 Parliament) in attempt to force the Vietnamese government to respond to residents'
598 claims making. One Vietnamese faith leader pointed out that he joined the alliance to
599 seek equity and justice and to protect victims, emphasizing religious grounds for
600 environmental protection:

601

602 The Earth is created by God and for us all, but people use it selfishly for individual
603 or corporates' interests. Anyone who exploits the Earth is committing a crime.
604 FHS does not care about the environment and people's lives. I want to do things
605 to help those victims who lose their jobs and have no choices but to seek jobs in
606 Taiwan; they have been exploited. I want to protect the Earth and seek equity and
607 justice. (Interview with Vietnamese faith leader)

608

609 Given the headquarters of Formosa Plastics Corporation ultimately lie in Taiwan, the
610 links the church has forged with Taiwanese organisations have been critical in
611 advancing claims-making. Indeed, Vietnamese activists and priests have made efforts
612 to appeal to international support and put pressure on the head company of FHS in
613 Taipei. Vietnamese environmental organizations and priests contacted Taiwanese non-
614 governmental organizations that are concerned about environmental protection and
615 human rights to join the actions to assist the victims and protect the environment. The
616 Taiwanese group Environmental Jurists Association formed an alliance with
617 Vietnamese activists to support claims to environmental injustice against Formosa

618 Plastics Group and the Vietnamese government. The chairman of Environmental Jurists
619 Association maintained that the pollution incidents provoked forms of policy mistake
620 and injustice by (a) bringing a high-polluting industry to Vietnam which is not
621 compatible with a coastal area reliant on fisheries; and (b) forcing displaced citizens to
622 look for jobs elsewhere, including Taiwan, the very country that has caused their misery
623 (Taiwan Environment Informational Center, 2017a).

624

625 Accordingly, Vietnamese and Taiwanese civil society organizations held a press
626 conference at the headquarters of Formosa Plastics Corporation in August 2016, calling
627 on the firm to release its investigative report on the mass fish dieoff and to commit to a
628 full clean up of Vietnam's environment. The press conference was co-organized by
629 civic organizations from both Taiwan and Vietnam. Vietnamese activists from
630 Australia, United States, Canada and Vietnam met with members of the Legislative
631 Yuan and Taiwanese environmental and human rights NGOs (Viet Tan, 2016;
632 interviewed Vietnamese faith leader). Recently, with the assistance of churches and
633 environmental and human rights organisations in Taiwan and Vietnam, Taiwanese
634 lawyers representing nearly 8,000 Vietnamese plaintiffs filed a lawsuit against FHS in
635 June 2019. However, the Taipei District Office dismissed the lawsuit and said that it
636 had no jurisdiction over the pollution case in Vietnam. Justice for Formosa Victims
637 started an online petition to ask the Taiwanese court to proceed with the lawsuit, with
638 more than 3,000 people signing the petition (The News Lens, 2019).

639

640 More widely, the alliance of victims asked for international institutions, environmental
641 activists and organisations to speak up and support in resolving the FHS disaster. The
642 alliance sent letters the United Nations, EU, World Bank, Asian Development Bank

643 and international environmental organizations to urge the Vietnamese government to
644 take responsibility to rehabilitate the environment and the lives of the victims. The
645 alliance also asked the Taiwanese government to “call Formosa to act responsibly in
646 our country, respect the environmental and livelihoods of Vietnamese and come up with
647 tangible actions and programs to resolve the disaster, return the environment to its clean
648 state and compensate affected victims” (Thảm Họa Formosa, 2017).

649

650 Whilst the actual effectiveness of these transnational organisations in terms of bringing
651 compensation to those alleged to have suffered harm from the FHS incident is open to
652 question, it is clear that the engagement of non-state actors with transnational links has
653 been an effective vehicle for enabling normative statements to be made about how
654 things ‘ought’ to be in the absence of formal state channels for claims-making within
655 Vietnam. With the Vietnamese authorities seemingly aiming to ‘close down’
656 responsibility to a single location in a single country (as per Section 5.2.), alliances with
657 Taiwanese NGOs and with the Catholic Church have given a pathway for communities’
658 claims to harm and injustice from the FHS plant to be brought closer to Formosa
659 Plastics Corporation and – ultimately – the Taiwanese Government that oversees the
660 company’s international activities.

661

662 6. Knowledge politics and alliance-building: challenges and possibilities for
663 articulating claims to environmental injustice

664

665 The FHS pollution incident shows the impact that a major pollution event can have on
666 the livelihoods of people in remote and rural areas reliant on farming and fisheries, and
667 how environmental activists and local residents face the threat of environmental

668 injustice and human rights in authoritarian regimes. We draw out two points for further
669 discussion.

670

671 **First is understanding the politics of knowledge and disputes over evidence and science,**
672 **as they play out in a transnational environmental justice dispute spanning one**
673 **authoritarian state (Vietnam) and one relatively new democracy (Taiwan).** Vietnam's
674 authoritarian political system may not in itself increase the likelihood of claims to
675 environmental injustice, but it does make it challenging for non-state actors to collate
676 and present evidence to support their claims to environmental injustice. The FHS
677 incident as narrated in Section 5 demonstrates the links between pollution issues and
678 outcomes in people's lives as the basis for environmental justice claims. Pollution was
679 argued to have negative effects on fishers and local residents, undermining individual
680 wellbeing, community functions and human dignity. **However, as per Ureta et al (2020),**
681 **providing evidence considered acceptable to support these claims is more difficult.** As
682 Ottinger et al (2017) observe, depending on larger social and political structures, the
683 role and meaning of science and expertise vary greatly, as does whose knowledge
684 counts in determining pollution. Yet as outlined in Sections 5.1. and 5.2., citizens' own
685 embodied experiences of pollution and knowledges of their local environments are not
686 only overlooked in favour of 'official' and 'expert' accounts of pollution, but claimants
687 argue the very act of attempting to collate independent evidence is outlawed. Such
688 misrecognition of local knowledges may constitute a harm in itself. According to
689 Honneth (1992; 1995), the harms created through misrecognition are primarily
690 psychological and intersubjective, including various forms of insults, cultural
691 domination, invisibility and disrespect, even leading to fear. This becomes a matter of
692 cultural survival when activists see their identities and communities are devalued and

693 recognition is denied, as with the FHS representative calling the community to choose
694 steel over fish.

695

696 The idea that local or non-official accounts of the experience of environmental pollution
697 may be afforded less credibility than ‘expert’ or ‘official’ accounts is of course not new
698 (Wynne, 1992; Ottinger et al, 2017). But the FHS case shows that in an authoritarian
699 context, even the act of creating techno-scientific evidence to support claims to negative
700 effects on livelihood and wellbeing can put claimants at further risk of harm.

701 **Furthermore, the FHS incident also shows how national-level processes of economic**
702 **reform (Morello-Frosch, 2002) and desire to engage with transnational flows of money**
703 **and materials (Iles, 2004) may bring authorities to discredit non-expert localised**
704 **accounts of environmental pollution, especially if these challenge a dominant narrative**
705 **of national socio-economic development by pointing towards injustice and harms in**
706 **peripheral areas.**

707

708 Second and related, our findings show the value and significance of transnational
709 alliances, especially non-state actors working across country contexts, in supporting
710 claims to injustice and collation of evidence in contexts where the state may not provide
711 instances of democratic participation. As shown in Section 5, the Catholic Church has
712 played an important role in supporting the environmental justice movement around
713 FHS and providing local residents and victims with material and spiritual assistance.
714 Religious leaders have engaged in networking and building alliances with Taiwanese
715 NGOs. Yet to make this alliance-building effective, social media has been critical.
716 Smith (2004) long ago identified the phenomenon of ‘scale jumping’, whereby
717 localised civil society organisations can bypass the state and engage directly at the

718 international level. Recent environmental justice-focused research has started to engage
719 with the question of how communities and civil society organisations can utilise social
720 media to ‘scale jump’ in this way and share alternative understandings of environmental
721 issues with a broad audience (e.g. Espiritu (2017) on indigenous issues in the
722 Philippines; Mabon and Kawabe (2017) on the Fukushima nuclear disaster in Japan).
723 In the FHS case too, environmental activists and priests were able to link together
724 environmental groups in Taiwan and other places in the world through the Internet and
725 social media, thus developing transnational networks to fight against authoritarian
726 political power. Vietnamese activism has tried to link Vietnamese citizens concerned
727 about environmental justice and human rights in other places through various means,
728 such as lobbying, online campaigning, and providing immediate information through
729 social media and litigation.

730

731 Furthermore, our findings illustrate that thinking about transnational claims to
732 environmental justice in terms of where (and in which spaces) claims get the most
733 traction can offer greater analytical purchase on an environmental justice issue. In the
734 FHS case, for instance, it is clear that activists have difficulties exploiting more
735 traditional media to gain access to the public arena, and that attempts to access
736 communities directly are likely to be met with resistance from the authorities. Looking
737 to other participation instances in which the debate is contested, such as online and
738 social media spaces, Taiwanese media, and even Taiwanese civil society and legislative
739 spaces, helps to bring a fuller understanding of the nature of claims to environmental
740 injustice around the FHS incident than may be possible by looking at community-level
741 participation alone. Thinking about the spaces within transnational environmental
742 justice debate in which claims get the most traction can thus bring fuller conceptual

743 insights and provide a pathway to understanding the contours of environmental justice
744 debates in an authoritarian setting.

745

746 6. Environmental justice in authoritarian settings and the importance of transnational
747 alliances

748

749 To conclude, we return to the linking of human rights with environmental justice
750 observed by Adeola (2000); and the view of Bucchi and Neresunu (2008) that science
751 and technology have become tools and resources for new environmental justice
752 movements. The claims to effects on citizens' and fishers' wellbeing and livelihood
753 outcomes as a result of the FHS incident reflect the observations of Adeola (2000),
754 Taylor (2000) and others that human rights and environmental justice are closely
755 entwined. **In our case, approaching the FHS pollution incident through a transnational
756 environmental justice framing has allowed us to pay explicit attention to how harms to
757 both people and the environment are distributed unevenly across space; and to
758 illuminate the processes of economic reform at national and international level that
759 ultimately lead to claims to environmental injustice from already disempowered groups.**

760 When it comes to the manner in which these claims are made, as per Bucchi and
761 Neresunu (2008) it is indeed the case that science and technology become tools to allow
762 claims to be made, most notably through online and social media platforms that
763 facilitate alliance-building claims-making in the absence of participation instances
764 provided by the state. Equally, however, in an authoritarian context, access to this
765 science and technology cannot be taken for granted and may itself be restricted or
766 controlled. In such settings, new transnational spaces become vital sites for
767 environmental justice struggles.

768

769

770

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