



Vietnam's Environmental Policies at a Crossroads

Salinated Rice Fields, Hunted-Out National Parks, and Eroding Beaches – and What We Can Do About It

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Preface

The following paper is based on experience I gained through numerous projects, workshops, and talks during my four years working for the Friedrich-Ebert-Stiftung (FES) on climate change, energy, and environmental policies in Vietnam. I sincerely thank my colleagues from the FES “climate” team in Vietnam, including my successor, Mrs Yvonne Blos, as well as my colleagues at FES headquarters, and two external experts, Mr Miguel

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Introduction: A success story coming to an end because of environmental threats?

It is widely known that Vietnam, a country of 90 million inhabitants, stretched out along the eastern shores of continental South-East Asia, has a very impressive record regarding its foreign and economic policies: The relatively small country succeeded in defeating almost all military superpowers (China, the USA, and France), and, after the end of the wars and an economic opening-up process in the 1980/90s, was one of the most successful countries worldwide in lifting a large percentage of its population out of poverty.¹ Today, Vietnam is a bustling country with one of the fastest growing middle classes worldwide, a well-respected member of the international community, and successfully attracts large numbers of foreign investors and tourists alike.

However, the future development of the country is threatened by severe challenges arising from climate change, the rapid industrialization process, and “home-made” environmental problems, which will be addressed in this paper. The paper is structured as follows: The following background (section 1) will describe the context of Vietnam’s triple environmental challenge. Against this backdrop, the political response of the country’s decision makers will be sketched out – and explanations offered why those political answers have not been sufficient to address the problems up to now (section 2). Against this bleak picture, section 3 will focus on some factors allowing room for optimism, while in the concluding section 4, policy recommendations will be presented specifying how those positive developments should be strengthened.

1. Background: Three categories of environmental challenges

Vietnam's environmental challenges can be classified according to three categories: There are challenges predominantly caused by developments outside Vietnam; there are challenges which are typical for countries in the process of industrialization; and there are challenges which are very specific to Vietnam.

First, regarding the problems caused by foreign actors, climate change, leading to sea-level rise, is by far the biggest challenge for the country.

Vietnam mastered all invasions by outside forces in the 20th century and before, but might fail to cope with the consequences of climate change in the 21st century and beyond. Vietnam's share in causing climate change has been insignificant in the past,² but all models show that Vietnam will be one of the countries hardest hit by sea-level rise worldwide. This is partly due to Vietnam's geographic features: Its 3,000km long coastline facing the South China- or Vietnamese East Sea erodes up to 30cm per year already today.³ Beaches literally disappear overnight, which is a concern for investors in the tourism industry.⁴ The even bigger problem is that Vietnam has two major river deltas, which house most of the country's population, and which are the major hubs of economic development: The major trading port of Hai Phong in the North and, further inland, the capital Hanoi with its 8 million citizens, will be affected towards the end of the century. Even earlier, essential parts of the southern Mekong Delta will sink: Current models predict that 40% of the Mekong Delta will be submerged at the end of the century, if no effective countermeasures are taken – and those models are based on predictions for a global average sea-level rise of 1m,⁵ while the feared collapse of the Greenland ice sheet could cause a further increase of 6-7m alone.⁶ This is especially problematic, because Ho Chi Minh City (HCMC), the country's biggest and fast growing metropolis, is based in the delta, because most of the industrial development of the country takes place in its southern provinces, and because most of Vietnam's agricultural production (rice, fish/shrimp farming, and fruits) is based in the Mekong delta as well. As Vietnam is one of the world's biggest exporters of rice, the loss of major parts of the Mekong delta poses a risk for international food security. The damage to fertile

land for growing rice has already begun: Due to sea level rise – but also because of decreasing water levels of the Mekong delta (due to hydropower dams in and outside Vietnam), an overexploitation of ground water, the destruction of mangroves, and the sheer weight of heavy infrastructure development – more and more salt water enters the delta's waterways every year, salinating the soil, thereby rendering rice farming impossible for a longer period of time, or even forever.⁷

While sea-level rise will be the biggest challenge for Vietnam in future, the country already suffers from more extreme weather events, which will add to the economic losses the country will experience due to climate change:

Floods caused by heavy rainfalls affect all major cities; record droughts have become normal especially for the Mekong delta and the fertile central highlands,⁸ while typhoons especially hit the central coastal regions.⁹ In total, Vietnam's financial needs to be able to adapt to climate change are estimated at least at 830 million USD per year¹⁰ – a number certainly beyond the country's financial capacities (with a total state budget of 45 billion USD in 2016)¹¹. This is all the more true because Vietnam is predicted to lose 6-15 million USD every year due to climate change.¹²

Second, like many industrializing countries, Vietnam's rapid economic development, including a growing energy demand, not only increases the country's contribution to climate change, but also causes tremendous environmental pollution, affecting the health of the majority of the citizens, and threatening all of the country's ecosystems.

As in many emerging economies, rapid industrialization helped to create new wealth. However, this process has (deliberately) been driven forward without flanking measures to protect the environment. Because of a global shift of "brown" industrial production especially to Asian countries (to which the "Global North" owes a part of its presumed "decoupling"),¹³ and a regional race to the bottom regarding environmental standards,¹⁴ the "dark side" of this economic development is becoming more and more visible: The large majority of Vietnam's water reserves is polluted – with water pollution causing up to 80% of illnesses, and pollution reaching such a

severe level that the water cannot even be used for industrial production anymore.¹⁵ Soil pollution is caused by the common overuse of pesticides (which also causes mounting concerns regarding food safety), as well as by the inadequate disposal of waste, including hazardous waste, from industrial production.¹⁶ The ever increasing amounts of household waste are also of concern, with (over-)consumption of goods reaching new records every year, while consumers have a low level of awareness regarding eco-friendly production, packaging, re-use, and recycling of goods – which puts Vietnam in place four worldwide for discharging plastic waste into the sea, causing complaints by Vietnamese as well as foreign tourists of beaches looking like dumping sites.¹⁷ The growing economy and wealth have also led to an investment boom in real estate and infrastructure projects, leading not only to a rapid sealing of land,¹⁸ but also to very controversial investments, such as golf courses driving away (and taking the water from) local communities, or resorts or cable car lines built in the middle of national parks.¹⁹

The air quality has deteriorated rapidly during recent years, primarily due to Vietnam's energy policy focussing on coal-fired power plants. The air quality of all major cities is affected by transport (insufficient public transport, but increasing numbers of motorbikes, and, since the reduction of tariffs,²⁰ especially of cars), and by the booming construction sector (with most buildings having a lifespan of less than 10 years because of inadequate materials, and because of increasing real estate prices making the replacement of old by new, bigger buildings financially attractive). The northern cities, especially Hanoi, also suffer from the nearby energy production of coal-fired power plants, surpassing the smog levels of Beijing, and even Delhi, at times in 2016. While bigger particles are stuck in the lungs of the capital's inhabitants, causing respiratory problems, small particles travelling from the coal-fired power plants more than 1,000km away enter the blood cycle, and cause cardio-vascular diseases such as strokes and heart attacks. According to the WHO, close to 30,000 premature deaths occurred in Vietnam due to air pollution in 2012.²¹ This number is projected to increase dramatically if the Vietnamese government implements its plans to build a large fleet of new coal-fired power plants in the centre and the south of the country in the upcoming decades.²² The realization of

those plans would cause tremendous pollution not only of the air, but also of the water and soil surrounding the power plants, severely affecting people's livelihoods and ecosystems. On top of that, they might either cause water shortages if built in increasingly drought- and salination-prone areas inland, or might be damaged due to coastal erosion or sea-level rise if built on the coast or in the Mekong delta. Of course, Vietnam's greenhouse gas (GHG) emissions, causing climate change, would also drastically increase – while contributing to the acceleration of climate change is not a good option for Vietnam at all, as can be seen from the problems caused by climate change described above.²³

However, there are viable alternatives for the energy supply of the country: First of all, there is a great potential for energy saving and energy efficiency, which has hardly been tapped, but which could reduce the country's estimated energy generation requirements until 2030 by 11%.²⁴ In addition to that, Vietnam has a great potential for all key renewable energies: The central and southern areas in particular have great potential for the solar industry (in rural areas, deepening the local value chain, or on the roofs of millions of houses and factories), while the coast and some parts of the highlands offer suitable locations for on-, and off-shore wind power, and the agricultural production (rice husk, residues from animal husbandry) leaves abundant by-products for biomass plants.²⁵ In contrast to this great potential, which has only been tapped to a very limited extent, Vietnam's potential for hydropower plants has almost been exhausted – whereby the dams partly have tremendous social and ecological impacts (such as resettlements, droughts and floods, and biodiversity loss). Fortunately, Vietnam also decided to scrap longstanding plans to start the production of nuclear energy in 2016.²⁶

While environmental pollution caused by industrialization, and air pollution caused by energy production from fossil fuels, are – sadly – typical for emerging economies, the ecological problems caused by past wars, and the high level of illicit trade in species today, are specific to the Vietnamese context. Vietnam has been largely cleared of unexploded war remnants, but the pollution of soil by Agent Orange used by US forces during the war cannot be undone in the near future – as literally half of the country would need to be decontaminated.

The loss of forest cover caused by Agent Orange, is also still partly visible today – though (illegal) logging before and after the war also massively contributed to the reduction of Vietnam's pristine rain forest to only 1% of its original size.²⁷ Because of Vietnam's rainforest being almost completely logged (mostly for Vietnam's furniture industry, and partly including national parks, which now only exist on paper), a lot of the illicit logging activities have been "outsourced" to neighbouring Laos and Cambodia. Vietnam is not only a hotspot for illegal wood production, but especially also for the illicit trade in species, both leading to severe biodiversity loss: In 2012, Vietnam was officially ranked the number 1 trading hub worldwide for the illegal trade in animals.²⁸ While many species from Vietnam and other South-East

Asian countries end up in the illegal pet trade or are consumed as speciality food in Vietnamese restaurants, other animal parts, especially ivory and rhino horn from sub-Saharan Africa, are used to produce "traditional" medicine. Today, the revenue of the illicit trade in animals from Vietnam matches that of the illicit trade in drugs.²⁹ This is very unfortunate, because Vietnam is part of the South-East Asian biodiversity hotspot, and has been ranked as the 16th most species-rich country in the world.³⁰

Looking at this bleak account of the state of Vietnam's environment, what is the answer of political decision makers to address those challenges? This question will be explored in the next section.

2. The political answers to those challenges – and why they often fail

Political decision makers are aware of the environmental challenges, and have adopted a sound policy framework to address them. Overall, Vietnam's political framework dealing with climate change and environmental protection can be considered very good, especially compared to those of other emerging economies. Important policy documents have been passed by all major actors of the political system, i.e. by Prime Ministers and representatives of their governments, by the National Assembly, and by the Communist Party of Vietnam (CPV), which sets the framework of political action in Vietnam. Those policy documents address all relevant levels – ranging from the internationally acclaimed “Vietnam Climate Change Strategy” (CCS), and the “Vietnam Green Growth Strategy” (GGS) signed by the Prime Minister, to a Resolution of the Communist Party on Climate Change, and to the Environmental Protection Law, and the recently revised penal code, which now foresees drastic sanctions in a separate chapter on “environmental crimes”, and to detailed decrees regulating the treatment of wastewater, solid waste, or the protection of species, which has been adopted by the National Assembly.³¹ Among developing and emerging countries, Vietnam is usually at the forefront adopting key policy documents. Most recently, Vietnam developed its Intended Nationally Determined Contributions (INDCs) in a timely manner before COP21, and was one of the first countries to adopt an Action Plan for the Implementation of the Paris Agreement on climate change, which was presented during COP22.³²

Unfortunately, many of those strategies and laws merely look good on paper, as their application is severely hampered by three factors: Incoherence of policies, an overall top-down approach in political decision making and a lack of control of policy implementation.

First, incoherencies can be observed between environmental policies: While political incoherence can also be seen in other policy fields, it can be observed that Vietnam has an impenetrable “jungle of paper tiger laws” in the field of climate change, energy, and the environment. Strategies aiming at the same goals sometimes do not even refer to each other, let alone are

harmonized. For example, the GHG reduction targets of the Climate Change Strategy, the GGS, and the NDCs are inconsistent: Whereas the GGS aims at a GHG reduction of 8-10% by 2020, followed by another reduction of 1.5-2% per year until 2050, i.e. amounting to -21,5 to -28% in 2030; the NDCs only aim at a reduction of 8% against a business as usual scenario (BAU) until 2030.³³ Looking for example at Vietnam's water regulations, which are quite extensive compared with those of other emerging economies, inconsistencies can also be observed.³⁴ Partly, these incoherencies have the positive reason that knowledge about these issues rapidly grew within political institutions during recent years. However, they are also often caused by a lack of liaison between relevant political actors. Looking only at the government (not even the National Assembly or the Communist Party), there is, at best, limited communication, and, at worst, competition between responsible ministries. At an early stage, most decisions regarding environmental issues were placed under the Ministry of Agriculture and Rural Development (MARD), until, in 2002, the Ministry for National Resources and Environment (MONRE) was established – which quickly became the focal point of attention for Vietnamese stakeholders and foreign donors alike, while the previous (good) work of bigger MARD was increasingly neglected.³⁵ Also in order to avoid the competition between those two ministries, the responsibility for the GGS was given to the Ministry of Planning and Investment (MPI) – which can be considered a good move on the one hand, because the MPI has a very high standing among the Vietnamese ministries. On the other hand, however, this subject was quite new to the MPI, and there was and is limited capacity to deal with this complex topic. Interministerial coordination committees have been established under several strategies, but, until now, have not come up with a harmonized policy framework. Unfortunately, the split between the responsibilities of the ministries is largely mirrored by other stakeholders working on the overlapping topics of green growth, climate change, disaster risk response, environmental protection, biodiversity and forest conservation, or protection of water resources. Most Civil Society Organizations (CSOs) and donors are focussing on one of those policy fields exclusively – which is understandable because of the

flurry of activities regarding each of those topics, but jeopardizes the chances of pointing out possible links, overlaps, and inconsistencies between those fields. While there are at least networks in the CSO sector, such as the Climate Change Working Group (CCWG), or the Vietnam Sustainable Energy Alliance (VN-SEA), in which CSOs exchange information about activities in those fields, an effective donor coordinator across those fields (partly also not even within some of those fields, such as work on the GGS or on climate change) has, up to now, not been sufficiently realized either by the Vietnamese side, or by the foreign donors themselves.

On top of that, almost none of the policies are harmonized with other political sectors, although creating such links would be crucial for the implementation of those strategies. For example, there are almost no references in the GGS to the overall socio-economic development plans of the country, although a linking of policies for “green” and “social” development would be highly desirable. Because there is very limited exchange with the Ministry of Finance, many of the strategies are not sufficiently budgeted – leaving the question open how their implementation will be financed. What is also striking is that the (various) GHG reduction targets are also not harmonized with the plans of the Ministry of Industry and Trade (MOIT), which is responsible for Vietnam’s energy policies, and which to a large degree focusses on an increase in the share of coal-fired power plants – obviously rendering any GHG reduction impossible.³⁶ Against this background, it is questionable whether the statement of the “Climate Vulnerable Forum”, of which Vietnam is a member, launched during the COP22 in Marrakesh, in which Vietnam committed itself to reaching “100% domestic renewable energy production as rapidly as possible”,³⁷ was agreed upon with all relevant political actors beforehand, and, therefore, whether it will have any influence on Vietnam’s future energy policy. Just as in the case of missing interlinkages between “green” policies, most donors and CSOs do not address those “missing links” between policy fields in a sufficient manner – there are, for example, very few projects combining work on poverty reduction and climate change, although there could be many synergies created. This creates the suspicion that some political decision makers willingly approve ambitious policies which are well suited to attract “donor money” for their mere

existence on paper, but which – as is clear beforehand – will be only implemented to a very limited extent. After all, for an emerging economy with expanding needs to fund infrastructural and social development (as well as an excessive state bureaucracy), it might not be the worst approach to attract outside funding both for the development and implementation of “green strategies” from donors, and foreign investment for “brown production” and coal-fired power plants from private investors at the same time.³⁸

Second, because of the top-down approach which is commonly adopted in all fields of Vietnam’s policy making, crucial stakeholders are excluded from political decision-making processes. In a “Western” discourse, one can often hear that the fast implementation of environmental policies must be easier in hierarchical, authoritarian states, than in pluralistic societies where large interest groups might block such ambitions. In Vietnam, as a single-party state, this is definitely not the case. As indicated above, policy making even in socialist Vietnam is not a “monolithic bloc”, but there are many different interests represented among members of the CPV on all levels, and lobby groups influencing political decisions exist just as in democratic societies. Nevertheless, most of the strategies are developed and approved in a top-down decision-making process, failing to include the needs, capacities, and best-practice projects of subnational levels (such as communities vulnerable to climate change), and important stakeholders (such as representatives of CSO and mass organizations). In addition to that, in most cases, the wider public is neither consulted during the development, nor sufficiently informed about newly adopted policies.³⁹

As a result, subnational levels and important stakeholders often lack the capacity, and sometimes also the motivation, to implement strategies that do not fully address their actual needs. Because the capacities on subnational levels are often not taken into account, and because of the above mentioned limited liaison with the Ministry of Finance, there is very often a lack of financial and human capacities and incentives for the implementation of environmental policies.⁴⁰ Moreover, many donors focus their activities on the national, ministerial level, while the implementation of the strategies on the ground is out of their scope,

and beyond the limited period of their project cycle.⁴¹ But how can one expect a provincial civil servant or a representative of a mass organization to keep track of, and efficiently implement, all (not harmonized and sometimes conflicting) policies adopted at the national level at the same time? When, for example, the Action Plan (AP) for the implementation of the GGS was adopted (and highly acclaimed), all provinces (and ministries, and mass organizations) were requested to develop provincial action plans. However, most provinces only copied and pasted the templates provided by the national level (sometimes even forgetting to replace the word “national” with “provincial”), instead of adjusting those plans to the real needs of the respective region. In addition to that, some strategies and laws (for issues considered non-sensitive) are deliberately kept broad or consensus based to allow for interpretations by subnational levels, while those levels would expect more detailed guidance. The expected “trickle down” of policies adopted on a national level therefore only leads to the adoption of “provincial paper tigers”, failing to make a substantial difference on the ground.

Third, non-compliance with national policies is hardly ever sanctioned. In addition to a lack of capacity, there might also be a lack of motivation for the implementation of those strategies because awareness of their importance is still limited, or because other objectives (high GDP growth even by attracting investments from polluting industries, etc.) are seen as predominant. A well-known Vietnamese proverb says that “the law of the king ends at the gates of the village”. This is still true today, as it is common practice of course not to openly question or even publicly demonstrate against new policies (which is forbidden), but rather to silently ignore them. This non-compliance is hardly ever punished, because the agencies assigned with carrying out checks also suffer from a considerable lack of human and financial capacity, as well as from a

lack of inter-agency liaison. Moreover, the effectiveness of such policies is severely hampered by inadequate rule of law and corruption from the top levels (where high bribes might play a role in the decision for huge coal-fired power plants, and against small-scale, decentralized RE) to the lowest levels (when bribable auditors do not report companies dumping wastewater, or forest rangers turn a blind eye to deforestation).⁴² This problem repeats itself looking at the judicial sector, where a lack of human capacity, and cases of corruption, can also be found. Last but not least, it must be emphasized that because of Vietnam’s political system and history, there are still very strong relationships between political decision makers and economic leaders – even if many formerly state-owned enterprises (SOEs) have been (partly) privatized within recent decades. Because of those economic-political connections, big producers in particular can easily exert political pressure, asking for eased conditions under environmental impact assessments (EIA’s) and audits. So, even if there is, for example, sufficient well-trained and non-corrupt personnel in a Vietnamese customs authority to discover a shipload of ivory smuggled through a Vietnamese port, and the customs officers are aware that they should immediately report this case to the environmental police for further investigation, the smugglers might still go free because they were either successful in bribing the court or asking for political “backing” to have the case dropped. It should be highlighted that this situation is neither exclusively the case regarding environmental laws, but can also be found in other policy fields, nor is this a specific problem of Vietnam, but likewise the case in many other countries in- and outside Asia.

So, will Vietnam’s environment deteriorate even further, although many laws and strategies have been adopted to halt this process? This must not necessarily be the case, as there are also positive developments, which will be explored in the next section.

3. Double pressure creating room for optimism

However insufficient the linkage and implementation of climate change, energy, and environmental policies might be, they still offer a very good starting point for all stakeholders aiming at saving Vietnam's environment – and this group of stakeholders is growing both on an international and on a national level.

Regarding the international level, four developments can serve as a starting point to improve the situation in Vietnam.

First, regarding climate change, Vietnam will come under pressure to increase its mitigation efforts. Compared to other emerging economies and neighbouring countries, as well as regarding Vietnam's great, but largely untapped potential concerning energy saving, energy efficiency, and the development of RE, current GHG reduction targets stated in the NDCs are very unambitious.⁴³ At the same time, Vietnam is eager to engage in climate change activities on an international level (having been selected for the NDC partnership initiative most recently, for example), and especially interested in acquiring multilateral, bilateral, or private sector "green funds". This becomes increasingly relevant as many donors started to phase out their cooperation with Vietnam when the country officially reached the status of a Middle Income Country in 2010,⁴⁴ while, also because of this status, it became increasingly difficult for Vietnam to access international credit lines with beneficial conditions.⁴⁵ Against this background, it is very likely that Vietnam will come under increasing international pressure to raise its ambitions regarding climate change mitigations, if it wants to continue benefitting from "climate funds."

Second, regarding the energy market, economic incentives to "go renewable" are increasing: Vietnam's potential for renewable energy has long been neglected – also due to the comparatively high prices of RE, and the lack of international investors interested in the market. This has recently begun to change with the current global investment boom in RE, the "divestment" movement,⁴⁶ and with prices for some RE falling under the average price of fossil fuels for the first time in

2016.⁴⁷ In order to attract and keep foreign investors, Vietnam has to provide energy security on a high level, as power cuts and fluctuations can hamper industrial production. Because the development of Vietnam's large new fleet of coal-fired power plants is delayed (also due to some investors pulling out), because Vietnam decided to scrap its plans to build nuclear power plants in 2016,⁴⁸ and because Vietnam's own coal resources, as well as the capacity to build more hydro-power dams has almost been fully exploited already, the development of fast-to-build and reliable RE on a larger scale recently became an attractive option. On this basis, the development of a market for RE because of economic (not climate change mitigation) interests, might be much quicker than foreseen in the conservative energy policies of the country.

Third, regarding industrial environmental pollution, Vietnam's integration into the world market can help to raise environmental standards: Interestingly enough, international free trade agreements (FTAs), which were heavily criticised by left-wing actors in the "Global North" and beyond (for good reasons), had a positive effect on Vietnam's environmental policies. Looking at the negotiations of two "deep and comprehensive" FTAs – the Trans-Pacific Partnership Agreement (TPP) and the EU-Vietnam Free Trade Agreement (EUVN-FTA) – Vietnam's minister for the environment expressed the overall opinion in 2016, that after the conclusion of those agreements, Vietnam would have to effectively implement its environmental policies, because, otherwise, it might jeopardize access to new markets.⁴⁹ Although negotiations under the TPP are now likely to be discontinued, the EUVN-FTA will be ratified in the near future. As Vietnam is interested in increasing its exports to the "Global North", where it has to face stricter import controls, the momentum to push for an implementation of Vietnam's environmental standards could be kept.

Fourth, regarding nature conservation, consumers in and tourists from the "Global North" might exert more pressure: "Western" citizens are becoming more and more aware of the standards under which their consumer products were produced. Labels for more

“environmental friendly” products – as questionable as some of them might be – are booming, be it because of health risks (from antibiotic-treated shrimps) or because of environmental concerns (because it is absurd to hike through an Asian national park in outdoor clothes produced under conditions polluting the very environment the nature lovers want to enjoy). At the same time, tourists mainly from the West, but increasingly also from Vietnam complain about the state of Vietnam’s environment – especially regarding polluted beaches and waters, inappropriate waste disposal all over the country, and the lack of species in protected areas.⁵⁰

In addition to the mounting international pressure and incentives, there are two developments on a national level which increase the pressure to improve this situation in Vietnam.

First, civil society especially in the field of climate, energy, and the environment, has been considerably strengthened in recent years. Today, there are more than 900 international NGOs, and thousands of national NGOs registered in Vietnam. But the NGO sector is not only growing in quantity; many NGOs are also becoming increasingly professionalized, also regarding their PR towards (heavily censored) media, and regarding policy advocacy. This might be surprising for some observers from the “pluralistic West”, but, as indicated above, Vietnam’s policy making has never been a fully “closed shop”, but should rather be described as an “invited space”.⁵¹ That means that once a certain level of trust has been reached between state and non-state actors, CSO representatives are at least regularly invited to present their viewpoints. Those viewpoints are more likely to be taken into account if the CSO representatives can make a convincing case that their approach will lead to more effective policy implementation (for example, showing evidence for feasible best-practices solutions on the ground). In the field of climate change, energy, and the environment, which are seen as less controversial than, for example, human rights and anti-corruption campaigns, there are positive signs for productive state-society relationships. This is, of course, a very welcome development, as it helps to overcome the top-down model of political decision making sketched out above, thereby improving the quality and applicability of Vietnam’s policies – and it also helps to better equip

those actors within the political system, who fight for an improvement of the environmental situation in Vietnam, with knowledge and good arguments.

Against this background, Vietnam’s mass organizations can play a crucial role. Like many (post-) socialist states, Vietnam has very influential mass organizations, such as the Women’s Union, the Ho Chi Minh Youth Union, and the Trade Union. All mass organizations must be consulted in political decision-making processes which are relevant for their field of work, and they are known to be able to exert considerable influence. In the past, the mass organizations were seen, and saw themselves as “transmission belts” for the decisions of the CPV towards their respective members (women, youth, workers, etc.). However, in recent years, the mass organizations started seeing themselves rather as advocates of the interests of their respective interest groups towards the state. While many mass organizations are in the middle of this transitional process, struggling to find their new role, they can serve as a “bridge” between NGOs promoting similar interests, and state representatives, to which they still have much better links.

Second, the awareness of the public is growing – and mounting public frustration over environmental pollution is putting increasing pressure on political decision makers. This positive development can be observed regarding different actors: the media, the poorest parts of the population, the new urban middle and upper class, and newly formed citizens’ initiatives.

The media coverage of environmental disasters and climate change concerns has improved in recent years. This is at least true for the quantity of media reporting on those issues, which has significantly increased. However, this does not fully apply to the quality of the media reports, as many journalists still lack the necessary background knowledge, and are not very skilled in imparting “knowledge to act”, i.e. to feature what citizens could do to improve the situation. A positive trend is that, especially since the mass fish die-off in April 2016 along the central and southern coast of the country,⁵² there has been a lot of discussion of environmental disasters and concerns in social media. Facebook and other social media communication channels in otherwise heavily censored Vietnam are not forbidden, but very widely used.⁵³

The awareness of Vietnam's citizens from all levels of society has increased as well. This is true for different groups, for example: a) the rural population losing their livelihood because of environmental disasters caused by climate change (such as the record drought in the Mekong delta in 2016, which affected millions of people),⁵⁴ or by industrial pollution (with inhabitants increasingly documenting and reporting the dumping of wastewater by nearby factories after the mass fish die-off); b) for managers of factories (who are increasingly aware that it would be best to replace their production line with resource-, and energy-efficient machines);⁵⁵ or c) for the urban middle- and upper class, which is less and less ready to simply accept the decreasing quality of the environment. What is worrying, however, is that those citizens who can afford it, apply "avoidance strategies" (buying electricity-intensive air filters or even cars because they (wrongly) assume that the air quality in a SUV is better than on a motorbike, using water only from millions of plastic bottles, growing supposedly "safe" vegetables on urban balconies, or, as an extreme measure, migrating to other countries), rather than change their behaviour to the improvement of the overall situation (consume less electricity or buy solar panels, trying to reduce or stop dumping their waste, etc.).⁵⁶ The private sector also starts tapping those new interests, for example by starting to offer more organic products, and might become a stronger force in promoting sustainable consumption in future. Looking not at passive consumption, but active engagement, partly because of the old "communist" habit of expecting the state to fix problems rather than to become active as an individual or group, there is only a limited number of concerned citizens getting involved in citizens' initiatives. What might be an even stronger factor is, that, following the logic of Vietnam's authoritarian rule, the work of those initiatives is often discouraged by local politicians, or even repressed by force, as autonomous actions are perceived as criticism towards the political system.⁵⁷

Nevertheless, the mounting pressure increases the risk for the CPV and the government of losing their credibility. The CPV drew most of its legitimacy first from the impressive victory in the Vietnam War, and then from the likewise impressive economic development in

the 1980s/90s. However, with those events now lying in the past, these successes are becoming less relevant for today's situation – especially looking at Vietnam's very young population (70% have been born since the war).⁵⁸ As a single-party state, Vietnam's political system suffers from a lack of "input legitimacy" (referring to the process in which state representatives come to power), and "throughput legitimacy" (referring to the level of transparency and traceability of the political decision-making processes). Thus, the only option left is "output legitimacy", i.e. the capability of the state's representatives to credibly demonstrate towards the citizens that their concerns are well-known to the political decision makers, taken seriously, and addressed in an effective manner. However, the political answer to the overall bad quality of the environment, affecting almost all citizens, amplified by "peak events" of grave environmental disasters, or seemingly incomprehensible political decisions (such as the mass cutting down of trees in the capital, which caused public outrage in 2015),⁵⁹ which the responsible politicians did not address in a quick, transparent, and effective manner, but rather tried to cover up, and then to play down, is ill-suited to maintain this "output legitimacy" of the political system. On the contrary, communication criticising the environmental situation and the reaction of politicians, grew rapidly, petitions were distributed (which is already a daring move in Vietnam), and some events even spurred week-long protests. Interestingly, this is not a Vietnam-specific development: It can be observed in several authoritarian states (with the most prominent example of China), that political criticism, and even (forbidden) protest is inflamed by environmental concerns. The dissatisfaction of Vietnam's citizens could lead to a strengthening of the voices of those decision makers within the political system who are really interested in improving the state of Vietnam's environment, against representatives with contrary opinions – to the benefit of the stabilization of the political system as a whole.

Looking at those positive developments, what can be done to reinforce them? This will be explored in the final section of the paper, in the form of policy recommendations to different stakeholders.

4. The way forward – policy recommendations for Vietnamese and international stakeholders

Against the background of the positive developments sketched out in section four, the following actions should be undertaken by stakeholders in- and outside Vietnam:

a) Regarding political decision-makers in Vietnam

Politicians should take the mounting frustration of Vietnamese citizens over the deteriorating quality of the country's environment seriously, and act accordingly, as insufficient tackling of those problems affects the credibility of the political system. To that end, the following steps should be taken into consideration:

- **Existing environmental policies should be synchronized**, leading to a coherent political framework addressing all sub-fields of climate change, energy, and the environment. As stated above, Vietnam already has an excellent legal basis, which “only” needs to be better integrated.
- **Existing environmental policies would become more effective if linked with relevant policies from other fields.** It would be easy to create synergies between environmental policies on the one hand, and overall development plans for the country, as well as “social” strategies (concerning poverty reduction or rural development) on the other. Outright contradictions of policies (such as between GHG reduction targets and the PDPVII revised) need to be avoided, as contradictory policies simply cannot be implemented at the same time.
- **New environmental policies should be developed taking into account the needs and capabilities of all stakeholders, which are crucial for their later implementation.** This applies to sub-national levels (provinces and communities, whose capacity to contribute to political decision-making processes might need to be strengthened in the first place) as well as to mass organizations, and, especially to political stakeholders responsible for budgeting those policies.
- **New environmental policies should rely on best-practice-solutions already tested on the ground.** Best practice-solutions regarding all key fields of environmental challenges have been explored by NGOs over the years. However, NGOs often lack the capacity to scale up their best-practices nationwide – which can only be done by political decision makers at the highest level. An increased exchange with civil society, which has already begun, benefits both sides, as the applicability and effectiveness of the respective policies can be secured from the outset.
- **Controlling the implementation of environmental policies is a key concern**, as otherwise, if the situation doesn't improve on the ground, political credibility to effectively deal with environmental degradation could be jeopardized. To this end, the human and financial capacity of sub-national levels, as well as the communication between relevant public agencies and private stakeholders (for example, the environmental police, auditors, and consumer protection organizations) should be strengthened.
- **Incentives for the private sector to contribute to the implementation of those policies should be reinforced.** Policy makers have already recognized that addressing all the environmental problems of the country exceeds the financial capacity of the state budget, and have undertaken the first steps to develop a “green finance” framework, for example looking at private and public banks. However, in some fields, the policy framework regarding “green finance and investment” can still be further improved – this is especially the case concerning feed-in tariffs for RE, and regarding credits for greening industrial production.
- **Actions of citizens to control the implementation of the state's policies should be supported, and environmental disasters should be addressed in a swift and effective manner, in order to strengthen the credibility of political decision-makers.** Especially since the environmental disasters in 2016, the

readiness of citizens to document and report such incidents has significantly increased. Reports by local residents, but also citizens' initiatives, can be embedded into political efforts to implement the policies already agreed upon at a higher level.

b) Regarding CSOs in Vietnam

In Vietnam's changing socio-political context, CSOs can make better use of their capacity to reach out to Vietnamese policy makers, donors, and citizens alike. They are uniquely positioned to create bridges between different stakeholders, and, in case of "closing spaces" in the political system of Vietnam, they can reach out to like-minded actors:

- **CSOs should not underestimate their potential to influence political decision-making processes – to the benefit of both sides.** With a new generation of politicians in Vietnam, the openness towards the involvement of civil society increases, often with key individuals in high-ranking state agencies functioning as door openers for further CSO involvement. If those "invited spaces" are used wisely, NGOs can promote their standing as allies, not foes, of political decision makers. To that end, the following steps would be beneficial:
 - **Point out best-practices solutions**, which already have been proven effective on the ground, and thereby contribute to the applicability of newly created policies;
 - **Highlight feasible alternatives for political decisions**, for example, by emphasizing the benefits of RE over the construction of coal-fired power plants; and by calculating the feasibility of such alternatives;
 - **Provide supporting evidence and arguments for those decision makers who really want to see a change for the better for Vietnam's environment.** Here, NGOs can rely on their knowledge gained "on the ground", as well as on the latest scientific evidence, and, over time could even build up effective alliances with progressive leaders;
 - **Intensify the exchange with scientists in and outside Vietnam.** Effective policy-advocacy needs to be evidence-based. New evidence is discovered by scientists around the globe non-stop, but scientists often lack the

necessary time, skills, and connections to feed in such evidence to political decision-making procedures, or to present it effectively in the media. Here, NGOs can serve as the "missing link" between scientists on the one hand, and politicians and media representatives on the other;

- **Channel up the voices of the citizens suffering most from environmental problems.** Politicians have much more limited access to affected communities and to the most vulnerable individuals than NGOs, and therefore might not be aware of their exact needs and capacities.
- As most individual NGOs do not have the capacities to fulfil all those tasks, and since the time of politicians, as well as of media representatives, is very limited, it is crucial to unite. Networks of NGOs, as they have already been formed to some extent, can play a key role in uniting the experiences and concerns of NGOs, thereby giving them more weight, pooling access to state representatives and donors, and sharing the tasks necessary for effective policy advocacy.
- In order to reinforce their standing, NGO networks can also reach out to multiple allies:
 - **International NGO networks are ideal platforms to exchange knowledge and strategies:** As pointed out above, most environmental problems are not specific to Vietnam, and, therefore, an exchange of best-practice solutions, especially among NGOs active in the "Global South" is very beneficial. The same is true regarding an exchange about operations of NGOs in systems with "closing spaces", because tightened controls and new NGO laws are, again, not specific to Vietnam, but the case in many countries around the globe.
 - **Donors especially from the "Global North" should be sensitized for the crucial role of NGOs.** Many donors focus their activities on the state level. However, since many donor organizations are rooted in democratic and pluralistic societies, they are generally aware of the great contribution of civil society to the development and implementation of environmental policies – yet often unaware

that there is also a very active civil society in Vietnam, which can exert influence. NGOs can not only seek financial support from donors, but also suggest them to integrate CSO-components into their project frameworks (for example regular consultation processes), thereby improving their access to key stakeholders.

- **Mass organizations are often unaware of similar interests with NGOs.** As indicated above, mass organizations in Vietnam are in a transitional phase. This window of opportunity can be used by NGOs to highlight joint interests, and to use the usually excellent advocacy channels of mass organizations. This is especially the case for the Trade Union, whose support is indispensable in a shift from a “brown” to a “green” economy, especially looking at a “just transition” in the country’s energy sector.
- **Active citizens and NGOs can cooperate creating mutual benefits.** As the awareness of citizens regarding environmental problems is growing, but many are still unaware of the contributions they can make as individuals, NGOs can create platforms to enable exchange, and joint actions in this field. At the same time, citizens may become more open to support the activities of NGOs – be it as volunteers or by giving donations.
- **Media representatives are interested in the voices of NGOs.** Reporters are often more interested in individual stories from “on the ground”, and pointed statements, than in lengthy political speeches. NGO representatives should therefore improve their media skills, invite journalists for project visits and activities, and thereby use increased reporting to promote their concerns and perspectives, as well as their overall standing.

c) Regarding media representatives in Vietnam

As sketched out above, the Vietnamese media is on the right track regarding environmental reporting, with a few fields left that can still be improved:

- **Vietnamese environmental journalism is still very “problem oriented”, not “solution oriented”.** Highlighting the tremendous threats posed by climate change and environmental pollution is certainly important in itself. However, one must take care that this increased coverage of negative events does not evoke a sense of helplessness among the general public. Reports on negative events should therefore be complemented by examples of positive actions, that can be undertaken (ideally by each individual) to improve the situation.
- **The media can play a key role in raising citizens’ readiness to act.** Although general awareness has increased in recent years, many citizens still lack a full understanding of the correlations between environmental problems and their effects. Yet a full understanding (for example, of how electricity consumption is linked to sea-level rise, or how plastic waste affects the ocean’s ecosystems) is crucial to progress from a phase of general awareness, to readiness to act, and to change behavioural patterns. Moreover, journalists can promote successful actions undertaken by individuals, or by citizens’ initiatives, thereby strengthening a general sense of self-effectiveness, i.e. that everybody can help to bring about change.
- **Journalists should point out multiple responsibilities for environmental disasters.** As indicated above, there is a tendency to blame foreign actors for causing environmental catastrophes in Vietnam. However, in many prominent cases, a mix of factors – driven by foreign and Vietnamese actors alike – caused those events. Media representatives should explain this complex picture, and not conveniently neglect the responsibility for environmental pollution “made in Vietnam”.
- **Journalists should highlight their beneficial role as “watchdogs” regarding the implementation of environmental laws.** As it is already the case most of the time, reports about environmental disasters should not indiscriminately blame political decision makers, but rather underline the beneficial role (investigative) journalists can play in documenting

environmental crimes, which are an assault on the policies agreed upon on a national level.

d) Regarding international donors:

As indicated above, donors can play a crucial role, as Vietnam is eager to acquire more international “green” and “climate funds”.

Predominantly by a better coordination among the numerous donor organizations working in the field of climate change, energy, and the environment, those international actors can make use of their full potential to push for a harmonization and effective implementation of Vietnam's environmental policies “on the ground”. To this end, the following steps would be helpful:

- **Keeping in mind that the political system of Vietnam is not a “monolithic bloc”, donors should identify and strengthen the capacity of those political decision makers who have a real interest in improving the situation of Vietnam's environment. One can often hear that Vietnam's environmental policies are largely donor driven.** This might have been true ten years ago. Today, there are numerous knowledgeable and skilled politicians with an intrinsic motivation to save Vietnam's environment today.
- **Donor organizations working in different fields should keep an eye on the coherence of Vietnam's political framework.** Ambitious GHG reduction targets are a great success, but lead nowhere if they are undermined by the fossil-fuel-prone energy planning for the country. Because there are many similar cases of conflicting policies, donors should not be misled by shiny environmental strategies, which might turn out to be mere “paper tigers”.
- **Donor organizations should widen the scope of political institutions they work with.** Of course, working with the ministry for environment on environmental issues is a necessity. However, as (too) many donor organizations seek partnership with MONRE, it is all the more worthwhile to strengthen ties with stakeholders from other parts of the political spectrum. Representatives of the parliament, or of the CPV, are likewise interested in improving

the environmental situation. And it might be even more beneficial to try cooperating with political stakeholders from less obvious agencies, such as the Ministry of Finance or the Central Bank, the Economic Council of the National Assembly, or the big Vietnamese energy providers, than to only work with those who are already convinced.

- **Donor organizations should foster inclusive political decision-making processes.** As highlighted above, NGOs, but also mass organizations, can play a crucial role in policy development, as well as in observing the implementation of those policies. Today, it is no longer politically sensitive to work with NGOs – and it has never been sensitive to work with mass organizations. When setting up project schedules, or planning joint activities, donors can push for the inclusion of CSO representatives, be it by consultations behind closed doors, or by inviting them to speak at conferences.
- **Donor organizations should focus more on implementation than on the development of environmental policies.** As highlighted above, Vietnam's policy framework (except for the lack of coherence) is quite good, whereas the big problem is widespread, unsanctioned non-compliance. Therefore, it is more important today to enhance the capacity of supervisory agencies, such as the environmental police and auditors, as well as of specialized lawyers and judges, than to help national institutions to enact yet another law, which will only look good on paper.
- **Anti-corruption measures should be taken wherever possible.** This is a sensitive topic in Vietnam, as in many other countries, but it needs to be made sure that at least a substantial part of the “climate funds” provided to Vietnam really reaches those people most at risk from climate change, and suffering most from environmental pollution, instead of being used only for heavy infrastructural development (such as huge concrete dams), with a very high risk of bribes being paid to construction companies. A worthwhile first step would be to increase the transparency of financial flows among donors – be it to generally eliminate the payment of “sitting fees”, to harmonize cost norms for the payment of services to partner organizations, or to uncover

whether likeminded donor organizations plan very similar study tours for the same Vietnamese participants within the same year.

- **Donor organizations should promote supporting activities “at home”.** It is important to emphasize that Vietnam did not cause all of its environmental problems, nor will it be able to overcome them alone. Helping Vietnam to save its environment is not in the hands of its politicians alone, but needs to be backed by the awareness of Western consumers to pay more for an environmentally friendly produced T-Shirt or for antibiotic-free shrimps, and especially by swift and very ambitious actions regarding climate change mitigation in the “Global North”. It is certainly not in line with the principle of “global climate justice” to criticize Vietnam’s plans to

increase its share in coal-fired power plants, while at the same time, the coal industry “at home” is continuously protected, although (financial) support for a just transition could be provided much more easily than in emerging economies.

- **Last but not least, donor organizations should unite to push for a higher level of ambition also within Vietnam.** If Vietnam still receives support for climate change mitigation, although its NDCs are very unambitious, or still receives support for national parks, which are, at the same time, damaged by the construction of cable cars and other heavy infrastructure, it is clear that donor organizations are not using their full potential in promoting those voices in Vietnam which want to see a real change on the ground.

Notes

1. Since the launch of the economic opening-up policy “*Đổi Mới*”, the \$1.90-a-day poverty rate fell from 50% in the early 1990s to 3% today, World Bank and Ministry of Planning and Investment of Vietnam, “*Vietnam 2035: Toward Prosperity, Creativity, Equity, and Democracy*.” (Washington, DC: World Bank, 2016), 5. Doi: 10.1596/978-1-4648-0824-1.
2. Vietnam's total GHG emissions amount to 251 million metric tons of CO₂ equivalent (MtCO₂e), which is 0.53% of the world's total. Per capita emissions per year are at 2.83 tons of CO₂ equivalent (tCO₂e), while the worldwide average is at 6.76 tCO₂e. See: USAID, “*Greenhouse Gas Emissions in Vietnam*,” Climate Links, June 2016, https://www.climatelinks.org/sites/default/files/asset/document/Vietnam%20Fact%20Sheet%20-%20rev%2010%2007%2016_Final.pdf.
3. This is the case in the Southern region close to Rach Gia.
4. This was, for example, the case at the famous Cua Dai Beach south of Hoi An.
5. See “*Climate Change and Sea Level Rise Scenarios for Vietnam: Summary for Policy Makers*,” MONRE, <http://www.imh.ac.vn/khoa-hoc/cat20/424/CLIMATE-CHANGE-AND-SEA-LEVEL-RISE-SCENARIOS-FOR-VIETNAM/>.
6. See Brian Kahn, “Sea Level Could Rise at Least 6 Meters,” *Scientific American*, last modified July 9, 2015, <https://www.scientificamerican.com/article/sea-level-could-rise-at-least-6-meters/>.
7. Unless there are super salt-resistant rice crops bred in future. For details, see Dr Rana Munns, “The Impact of Salinity Stress,” *Plant Stress*, http://www.plantstress.com/articles/salinity_i/salinity_i.htm.
8. A record drought in spring 2016 affected more than 2 million people, and caused an economic loss of 675 million USD (excluding long-term costs).
9. About 62% of the population and 44% of the whole country are frequently affected by typhoons which, on average, kill 250 people every year, see Asian Disaster Reduction Center, “*Viet Nam Country Report 1999*,” ADRC, <http://www.adrc.asia/countryreport/VNM/VNMeng99/Vietnam99.htm>. According to Tran Quang Hoai, Deputy Head of the General Irrigation Department under Vietnam's Ministry of Agriculture and Rural Development, economic loss by natural disasters amounts to over 1 billion U.S. dollars per year, see “*Natural Disasters Cost Vietnam over 1bln USD and 500 killed Each Year: Official*,” *Fresh News Asia*, <http://en.freshnewsasia.com/index.php/1955-natural-disasters-cost-vietnam-over-1-bln-usd-and-500-killed-each-year-official>. Typhoons are predicted to become less frequent, but stronger and bring more rainfall. They are also likely to shift more to the south of the country and come at a later phase of the year than is the case today.
10. According to a World Bank report for the period 2010-50, see IFAD, *Comprehensive Environment and Climate Change Assessment in Viet Nam* (Rome: IFAD, 2014), 29.
11. See The Ministry of Finance of the Socialist Republic of Vietnam, “*Budget Plan for 2016*,” Ministry of Finance, http://www.mof.gov.vn/webcenter/portal/mof/r/ltvc/nsnn/exstatis/exstatis_chitiet?dDocName=MOFUCM093495&dID=96659&_afrLoop=43171079327865179#!%40%40%3F_afrLoop%3D43171079327865179%26dDocName%3DMOFUCM093495%26dID%3D96659%26showFooter%3Dfalse%26showHeader%3Dfalse%26_adf.ctrl-state%3D15zjio177l_4.
12. The authors adopt a multi-sectoral approach (including assessments on agriculture, energy, infrastructure, sea level rise, and storm surges) to translate biophysical damage into economic costs. By 2050, Vietnam's GDP is expected to exceed US\$500 billion, while average annual GDP will be reduced by up to 3.5% due to climate change effects. These losses are likely to be concentrated in certain sectors and population groups, see Channing Arndt, Finn Tarp, and James Thurlow. “The Economic Costs of Climate Change: A Multi-Sector Impact Assessment for Vietnam,” *Sustainability* 7 (2015): 4141.

13. Decoupling refers to the growth of an economy (measured in GDP) without corresponding use of environmental resources. Resource use can either be reduced relative to GDP (relative decoupling) or can decline in absolute terms (absolute decoupling).
14. For example, a share of the formerly Chinese electronics industry moved to Vietnam, after China raised its environmental standards regarding forbidden chemical substances in production processes.
15. See "Water Related Diseases Rampant in Vietnam," Thanhnien News, March 29, 2010, <http://www.thanhniennews.com/health/water-related-diseases-rampant-in-vietnam-17143.html>. Although 60 percent of households dispose of wastewater through a public sewerage system, much of this goes to the drainage system with only 10 percent of the wastewater treated, see "Vietnam: Urban Wastewater Review," World Bank, <https://www.worldbank.org/en/country/vietnam/publication/vietnam-urban-wastewater-review>. According to a survey on rural sanitation conducted by MoH in 2007, only 25.1% of the total 2,958 water samples taken from domestic water sources of rural households from eight ecological regions meet microbiological standards. "Vietnam Water and Sanitation Sector Assessment Report," World Health Organization Western Pacific Region, 2012, http://www.wpro.who.int/vietnam/topics/water_sanitation/watsan_sector_report_vietnam_2011.pdf. Vietnam's industrial zones discharge around 240,000 cubic meters of untreated industrial waste into the environment every day and only 42 out of the country's 639 industrial zones have a wastewater treatment facility, see "Vietnam's Industrial Zones Create 'Massive Public Health Burden,'" Thanhnien News, January 11, 2015, <http://www.thanhniennews.com/health/vietnams-industrial-zones-create-massive-public-health-burden-37468.html>. According to the General Statistics Office (GSO), violations of the country's environmental regulations were recorded at some 80 percent of industrial parks. Foreign-invested firms accounted for 60 percent of companies caught discharging waste that exceeds the allowable standards, according to the GSO "Vietnam Suffers 50 Major Toxic Waste Scandals in 2016," VNExpress, December 30, 2016, <http://e.vnexpress.net/news/news/vietnam-suffers-50-major-toxic-waste-scandals-in-2016-3521238.html>. Due to deterioration in fresh water resources, the Environmental Sustainability Index ranked Vietnam 127th out of 146 countries in terms of overall environmental health, behind its neighbours Laos, Cambodia, and Thailand, Heather Whitney, "Vietnam: Water Pollution and Mining in an Emerging Economy," *Asian-Pacific Law & Policy Journal* 15, no.1 (2013): 28, <http://blog.hawaii.edu/aplpj/files/2014/03/Whitney-Final.pdf>.
16. Due to the lack of waste treatment plants, most of Vietnam's waste is buried or put into open landfills. This is a huge problem, because solid waste generation in industrial zones is estimated to reach up to 13.5 million tons/year by 2020 (see MONRE "National State of Environment Report 2011: Solid Waste. Industrial Solid Waste," CEM Portal, http://cem.gov.vn/Portals/0/quynh/Bao%20cao/2011_CTR_TA/Chapter%204.pdf).
17. See Jenna R Jambeck et al., "Marine Pollution: Plastic Waste Inputs from Land into Ocean," *Science* 347, no. 6223 (2015), https://www.iswa.org/fileadmin/user_upload/Calendar_2011_03_AMERICANA/Science-2015-Jambeck-768-71__2_.pdf.
18. Land sealing has a series of negative consequences: Contributing to climate change, because soil absorbs CO₂; requiring communities to build expensive runoff systems and reducing ground water, because the water cannot infiltrate the soil; leading to loss of fertile land for agriculture; and ultimately increasing long-term risk of flooding.
19. See Elisabeth Rosen, "World's Largest Cave in Vietnam Threatened by Cable Car," *The Guardian*, December 3, 2014, <https://www.theguardian.com/environment/2014/dec/03/worlds-largest-cave-vietnam-threatened-cable-car>. Because such costly investments are often made by rich and well-connected tycoons, environmental impact assessments and other "red tape" are often not applied in a strict manner.
20. In line with Vietnam's commitment to the World Trade Organisation (WTO) on tax reduction, the tax on vehicles was reduced starting January 1, 2015.
21. See WHO, "Burden of Disease Data by Country," World Health Organization, last modified September 21, 2016, <http://apps.who.int/gho/data/node.main.156?lang=en>.

22. Vietnam is projected to increase the number of coal-fired plants from 26 (in 2015) to 67 (in 2030) (see Lars Blume et al., "GreenID: Air Quality in Viet Nam – 2016," <http://en.greenidvietnam.org.vn/view-document/5876ee88a7f821ca088b4567>. Because of that, it is estimated that there will be almost 20,000 more premature deaths per year by 2030, see Shannon N. Kopplitz et al., "Burden of Disease from Rising Coal-Fired Plant Emissions in Southeast Asia," *Environmental Science & Technology* 51 (2017): 1473. DOI: 10.1021/acs.est.6b03731.
23. If the current plans are implemented, GHG emissions will increase from 35.88 million tons in 2005 to 301.61 million tons in 2030, see Hong Thuy Nguyen and Dam Thi Phuong Thao, "Debunking Renewable Energy Myths in Viet Nam," GREEN ID, <http://en.greenidvietnam.org.vn/view-document/5858f720a7f8219b4b8b4569>. Because of its industrialization, Vietnam's total GHG emissions skyrocketed by 937% from 1991-2012, see USAID, "Greenhouse Gas Emissions in Vietnam," Factsheet, June 2016.
24. See World Bank, "Exploring a Low-Carbon Development Path for Vietnam," 2016, online: <http://dx.doi.org/10.1596/978-1-4648-0719-0>. According to this study, capacity additions for the period 2015 to 2030 could be reduced by 7% (or 11.7GWe), thereby making direct savings of more than 55 billion USD possible (not taking into account positive side effects of such a low-carbon development model estimated at another 48 billion USD). Major savings could be realized by industrial energy efficiency measures, and by fuel-saving measures in the transport sector.
25. According to a report launched in 2016 by WWF Vietnam and the Vietnam Sustainable Energy Alliance (VSEA), it is technically and economically feasible to guarantee energy supply for Vietnamese citizens in 2050, with between 81-100% RE ; thereby reducing GHG emissions by more than 80%, see WWF, "Vietnamese Power Sector Can Reach 100% Renewable Energy by 2050, According to New Study," http://www.panda.org/wwf_news/?267471/new-study-vietnam-power-sector-and-renewable-energy-by-2050.
26. For more information about nuclear energy in Vietnam please see: "Nuclear Power in Vietnam – Challenges and Alternatives," GreenID, October 18, 2016, <http://en.greenidvietnam.org.vn/view-document/5805a4fba7f8210006a3e814>.
27. Vietnam's forests are rated according to the following categories: Special-use Forest (used mainly for conservation of nature, specimens of the national forest ecosystems and forest biological gene sources; 2.1 million ha or 15.7% of total forest area), Protection Forest (used mainly to protect water sources and land, prevent erosion and desertification, restrict natural calamities and regulate climate, thus contributing to environmental protection; 4.7 million ha or 36.1% of total forest area) and Production Forest (used mainly for production and trading of timber and non-timber forest products in combination with protection, contributing to environmental protection; 6.2 million ha or 48.2% of total forest area). See UN REDD Vietnam, "UN-REDD Vietnam Phase II Programme: Operationalisierung REDD++ in Viet Nam," Hanoi: October 2013. Last modified on October 14, 2015, <http://www.unredd.net/documents/un-redd-partner-countries-181/asia-the-pacific-333/a-p-partner-countries/viet-nam-183/viet-nam-phase-ii-programme/11567-un-redd-vietnam-phase-ii-programme-document-11567.html>. Vietnam's overall forest cover is growing again; however, this is mainly due to planting monoculture production forest. The supply of wood certified by the Forest Stewardship Council (FSC), for example by the furniture or paper industry, exceeds the supply. Negotiations to reach an agreement under the Forest Law Enforcement, Governance and Trade (FLEGT) have been going on for several years; but Vietnam hasn't signed the agreement, yet.
28. According to a WWF report, see "Vietnam Ranks 'Worst' in Wildlife Crime," Al Jazeera, July 23, 2012, <http://www.aljazeera.com/news/asia-pacific/2012/07/201272345537602755.html>.
29. In 2000, the total revenue was estimated at 67 Million USD, page 156. Hanoi is the biggest centre of wildlife meat trade with estimated total revenue of 12,270 USD per day. See Van Song Nguyen, "Wildlife Trading in Vietnam: Situation, Causes, and Solutions," *The Journal of Environment & Development* 17, no. 2 (2008). doi: 10.1177/1070496508316220, <http://journals.sagepub.com/doi/pdf/10.1177/1070496508316220>.

30. See USAID, “New USAID Policy Highlights the Role of Biodiversity Conservation, Prioritizes Vietnam,” USAID, July 10, 2014, <https://www.usaid.gov/vietnam/press-releases/june-10-2014-new-usaid-policy-highlights-role-biodiversity-conservation>.
31. The CCS was issued in 2011, see: “National Strategy on Climate Change,” Socialist Republic of Vietnam Government Portal, December 5, 2011, <http://chinhphu.vn/portal/page/portal/English/strategies/strategiesdetails?categoryId=30&articleId=10051283>; the GGS in 2012 (see: “Vietnam National Green Growth Strategy,” GIZ, September 25, 2012, <https://www.giz.de/de/downloads/VietNam-GreenGrowth-Strategy.pdf>). One year later, the resolution of the Communist Party no. 24/NQ-TW on “Active Response to Climate Change, Improvement of Natural Resource Management and Environmental Protection” was adopted, see <http://thuvienphapluat.vn/van-ban/Tai-nguyen-Moi-truong/Resolution-No-24-NQ-TW-climate-change-improvement-of-natural-resource-management-203397.aspx>. The Law on Environmental Protection from 2014 can be found here, see “Law on Environmental Protection,” Investment & Trade Promotion Centre Ho Chi Minh City, June 23, 2014, http://www.itpc.gov.vn/investors/how_to_invest/law/Law_on_environmental_protection_2014_1/mldocument_view/?set_language=en; and the first draft of Penal Code from 2015 (not revised version from 2016) here: <http://thuvienphapluat.vn/van-ban/Trach-nhiem-hinh-su/Law-No-100-2015-QH13-criminal-code-307009.aspx>.
32. With signing the Paris Agreement in 2016, the INDCs became NDCs, see: “Intended Nationally Determined Contribution of Vietnam,” <http://www4.unfccc.int/Submissions/INDC/Published%20Documents/Viet%20Nam/1/VIETNAM'S%20INDC.pdf>
33. In addition to that, the BAU scenario of the NDCs is based on the assumption that no strategies, such as the CCS or GGS were in place, and also assuming a very ambitious growth rate. The CCS only states that after every 10 years, GHG emissions from agriculture should be reduced by 20%.
34. See “National Technical Regulation on Waste Water,” Au Viet Environment Technology Joint Stock Company, <http://www.moitruongauviet.com/NewsDetail.aspx?k=2&cate=114&tuto=139> for examples on water regulations.
35. For example, if you look at the number of foreign experts employed at MARD and MONRE, or ODA funding provided to those ministries.
36. The most important document in this regard is the “Power Development Plan VII revised”(PDPVII revised). The “revised” refers to some adjustments done after COP21 in Paris, foreseeing a reduction of the number of newly planned (!) coal-fired power plants. Somehow, the Vietnamese government managed to “sell” this decision on an international level as starting point for phasing out coal in Vietnam, which was highly acclaimed by the international community. However, this is not at all the case, as the plan still foresees an increase of the share of coal power from 34.4% today to 49.3% in 2020, and 53.2% in 2030. See: “Vietnam Power Development Plan for the Period 2011- 2020,” GIZ, http://gizenergy.org.vn/media/app/media/legal%20documents/GIZ_PDP%207%20rev_Mar%202016_Highlights_IS.pdf. In an unusually open statement, the World Bank president Jim Yong Kim explicitly criticised those plans by Vietnam, and a few other Asia nations, emphasizing that “Plans to build more coal-fired power plants in Asia would be a ‘disaster for the planet’ and overwhelm the deal forged at Paris to fight climate change.” See Suzanne Goldenberg, “Plans for Coal-Fired Power in Asia are a ‘Disaster for planet’ Warns World Bank,” The Guardian, May 5, 2016, <https://www.theguardian.com/environment/2016/may/05/climate-change-coal-power-asia-world-bank-disaster>.
37. See “Climate Vulnerable Forum Vision,” Climate Vulnerable Forum, November 18, 2016, <http://www.thecvf.org/wp-content/uploads/CVFFVisionNov2016.pdf>.
38. Otherwise, it’s hard to explain why Vietnam both allows diverse international investment in coal-fired power plants, and actively lobbies to acquire more “climate funds”. Although individual wealth especially in the urban middle and upper class is increasing rapidly, the state budget came under pressure in 2016, when the National Assembly refused a request by the Communist Party to increase the allowed threshold for the state budget’s debt ceiling.

39. Regarding this last point, however, positive developments can be observed. For example, NGO networks have been consulted more frequently during policy-making processes. This is partly the case because of a professionalization of Vietnam's CSOs, but partly also because of a new generation of politicians more open towards CSO involvement. Since their political fields are considered non-sensitive, they could serve as a "test-field" for productive state-society-relationships. See also recommendations below.
40. Most state budget is linked to socio-economic development plans (SEDPs), and some sectoral programs. In those cases, there are finances provided to subnational levels. However, there are no funds allocated for community consultations, even if they express an interest in it.
41. Of course, there are notable exceptions, for example by major international NGOs, such as Oxfam, or CARE, which support projects "on the ground". However, looking at multi- and bilateral donors, activities are mainly concentrated on the national, and only partly on the province level.
42. The Forestry Protection Department estimates that between 2010 and 2013, some 96,463 violations were dealt with, with only 1,234 of them resulting in criminal proceedings, accounting for 1.3% of the recorded cases, see UNODC, *Criminal Justice Responses to the Illegal Trade in Timber in Vietnam*, (Bangkok: UNDOC, 2013), 19. This shouldn't be surprising as it is common practice to "buy" jobs in the state and private sector. For example, a ranger in a national park may have "bought" his job for a high price, so that he starts his career with a high level of debts, which he cannot repay on his very limited income alone, and, as a result, has a high incentive to accept bribes (for example for illegal logging) again. This is a vicious cycle because, obviously, such finance flows are not subject to taxes (while tax fraud is a common problem, too, because of widespread corruption among auditors). Because of that, the state budget will not be sufficient to pay its forest rangers and other civil servants a decent salary – nor to allocate sufficient funds for public institutions (such as national parks), so that those institutions stay dependent on "entry bribes" from new employees.
43. Compared with other emerging economies, and even with some developing countries, Vietnam's intended GHG reduction targets are really low, see: "Comparison Table of Submitted INDCs," Center for Climate and Energy Solutions, December 21, 2015, <https://www.c2es.org/indc-comparison>. There was very little open criticism in the Vietnamese press, however, behind closed doors or orally, most of the arguments summed up in this blogpost are referred to: "Climate Change and Vietnam – Right Choices Required," Vietnam Holding, December 21, 2016, <http://blog.vietnamholding.com/climate-change-and-vietnam-right-choices-required/>.
44. See "About Vietnam," UNDP, <http://www.vn.undp.org/content/vietnam/en/home/countryinfo.html>.
45. Vietnam received a high amount of international finance with very good conditions during its economic opening-up process in the 1980s and 1990s. In recent years, many of those credits have been running out. But with insufficient capacity to pay back those debts, Vietnam has to refinance them by taking out new credits – with stricter conditions. Because of the worrying debt levels of Vietnam's state budget, the Vietnamese National Assembly recently refused to increase the debt ceiling, as had been suggested by the CPV – which is, in itself, a highly unusual political event.
46. Divestment is the removal of investment capital from stocks, bonds or funds. The global movement for fossil fuel divestment is asking institutions to move their money out of oil, coal and gas companies. From September 2015 to December 2016, the amount of money represented by people and institutions that have vowed to divest from fossil fuels has doubled to \$5 trillion. To date, 688 organizations – namely charities, faith-based groups and local governments – and 58,399 individuals across 76 countries have committed to pull their money out of oil, gas and coal companies, see Alexander C Kaufman, "Amount of Money Divested from Fossil Fuels Doubled Since Last Year," Huffington Post, December 13, 2016, http://www.huffingtonpost.com/entry/fossil-fuel-divestment_us_584ee51de4b0bd9c3dfdbce8.

47. While the average global levelized cost of electricity (LCOE) for coal has hovered around \$100/MWh for over a decade (disregarding the costs of environmental pollution and climate change, health impacts, or the costs of recovering coal mines), solar has seen its cost plummet from around \$600 a decade ago to \$300 only five years later, and is now close to or below \$100 for utility-scale photovoltaic. Wind LCOE is around \$50. In this sense, the two major sources of non-hydro renewable energy have reached grid parity in more than 30 countries without subsidies. The World Economic forum (WEF) projects that two thirds of the world will reach grid parity in the next couple of years, and by 2020, solar photovoltaic energy is projected to have a lower LCOE than coal or natural gas-fired generation throughout the world. See Katherine Bleich, and Rafael Dantas Guimaraes, *“Renewable Energy Infrastructure Investment Handbook: A Guide for Institutional Investors,”* (Geneva: World Economic Forum, 2016), <https://www.weforum.org/whitepapers/renewable-infrastructure-investment-handbook-a-guide-for-institutional-investors/>
48. See “Interview: Vietnam Says No to Nuclear Energy,” Friedrich-Ebert-Stiftung, <http://www2.fes-asia.org/interview-vietnam-says-no-to-nuclear-energy/>
49. See the opening remarks of Dr. Tran Hong Ha, Vice Minister of MONRE, at a conference on “Implementing the Environmental Commitments of the Trans Pacific Partnership” held on April 8, 2016 in Hanoi.
50. It must be mentioned, however, that Vietnamese and Western tourists have very different tastes enjoying nature. Many Vietnamese prefer easy travelling (concrete roads and cable cars in national parks), and perhaps enjoy “wild meat” in the forest, just as they enjoy seafood on the beach, while many Western tourists hiking through national parks would find such things outrageous. The question is, therefore, which target group the Vietnamese tourism industry wants to attract more in future.
51. Andrew Wells Dang, “Political Space in Vietnam: A View from the ‘Rice Roots,” *The Pacific Review* 23, no. 1 (2010). However, there might be “closing spaces” for NGOs in the near future, as a new, very controversial NGO law is scheduled to be passed in 2017, further limiting the freedom of action of Vietnamese NGOs, which are already closely monitored by state authorities.
52. In early April, residents along the coast of Ha Tinh province and neighbouring Quang Binh, Quang Tri and Thua Thien Hue provinces began noticing unprecedented numbers of dead fish. A month later, over 100 tons worth of dead fish had been collected, and Prime Minister Nguyen Xuan Phuc promised an investigation on May 1. It took nearly three months until officials announced on June 30, 2016, that the company Formosa was responsible for the toxic spill and ordered it to pay 500 million USD. See Gary Sands, “The Company Behind Vietnam’s Largest Environmental Disaster,” Foreign Policy Association, July 14, 2016, <http://foreignpolicyblogs.com/2016/07/14/company-vietnam-environmental-disaster>.
53. What is problematic, however, is that many media representatives and citizens using social media channels tend to blame foreign actors for having caused environmental catastrophes in Vietnam, instead of pointing their fingers at responsible actors within Vietnam – or even at themselves. For example, the Taiwanese company “Formosa” was made to pay a fine for the mass fish-die offs in early 2016, although many experts agree that this single company cannot have caused the environmental disaster alone.
54. Induced by a combination of temperature rise due to climate change and the “El Nino effect”, Vietnam’s most recent drought already started in late 2014, and peaked in spring 2016, affecting one third of the country. At its peak (February – May 2016), it disrupted the lives of 2 million people, leading to water shortages, and related diseases, food insecurity and income losses. 660,000 ha of crops were affected, and the total economic loss is estimated to be 674 million USD, excluding medium- and long-term consequences, see UN Risk Disaster Management Team Vietnam. “Infographic: Viet Nam is recovering from its strongest ever drought and saltwater intrusion,” November, 2016.

55. Vietnam's industry has great investment needs, as many factories and industrial zones set up during the economic opening-up process operate nowadays with outdated equipment (which might have even been bought used from factories in other (post-)socialist states in the 1990s). The big question is now whether this necessary update of the production chain will be done in a conventional way, or taking into consideration energy- and resource efficiency measures. In order for the latter option to become reality, technical expertise, and specifically access to "green credit and investment" is key.
56. However, there is at least a limited change regarding some consumption options: There is an increasing demand for organic food, and it is increasingly considered "hip" among urban youth to dine in vegan restaurants, for example, just as it is the case in metropolises around the world.
57. A prominent example is a citizens' initiative cleaning up the historic To Lich River in Hanoi, which has been stopped by the authorities. For instance, James Joseph Kendall from the United States founded the volunteering group "Keep Hanoi Clean", only to be informed later by authorities that he would need an official permit to clean it, see <http://thanhvien.vn/doi-song/ong-tay-khong-biet-muon-nhat-rac-phaixin-phep-chinh-quyen-703690.html>. Police frequently used excessive force to disperse pro-environment marches in Hanoi and Ho Chi Minh City, see, for example "Vietnam: End Crackdown on Bloggers and Activists," Human Rights Watch, January 12, 2017, <https://www.hrw.org/news/2017/01/12/vietnam-end-crackdown-bloggers-and-activists>. For instance, police officers detained 20 environmentalists, who were protesting against the tree cutting plan of Hanoi, see "Hanoi Suppresses Peaceful Green Demonstration, Detaining 20 Environmentalists," Vietnam Right Now, April 27, 2015, <http://vietnamrightnow.com/2015/04/hanoi-suppresses-peaceful-green-demonstration-detaining-20-environmentalists/>. Previously, one of the admins of the Facebook group "For A Green Hanoi" (which also speaks out against the tree-cutting scheme), was assaulted by plainclothes police, see Vu Quoc Ngu/Vietnam Human Rights Defenders, "Hanoi-based Activist Severely Beaten by Thugs," Vietnam Right Now, April 26, 2015 <http://vietnamrightnow.com/2015/04/hanoi-based-green-activist-severely-beaten-by-thugs/>. In response to public protests over the Formosa incident, Vietnam's State Television (VTV) warned the public not to join "reactionary forces" that were exploiting the incident in order to overthrow the government, on May 15, 2016, see Martin Petty, "Vietnam says 'Reactionary Forces' at Work in Environmental Protest," Reuters, May 16, 2016 <http://uk.reuters.com/article/uk-vietnam-politics-idUKKCN0Y60MO>.
58. A recent survey revealed that while in the past, 4 out of 5 young Vietnamese would have liked to join the CPV, the ratio is just the opposite today (i.e. only 1 out of 5), while the Vietnam-expert Carlyle Thayer concluded already in 2003 that: "The party has experienced difficulties in recruiting young people in recent years. (...) Figures issued for the period 1993-June 2002 indicate that students accounted for 3.6 per cent of the new membership intake into the party." See Carlyle A. Thayer, "Current Dynamics of Vietnamese Society and External Challenges," 2013. Paper to Conference on Sustainable Development in Vietnam, Page 32. http://www.vpa-inc.org/conference/pdf/Thayer_md.pdf. Another survey showed that Bill Gates, not Ho Chi Minh, is the biggest idol of Vietnamese youth. See Long Le, "The Politics of the Vietnamese Post – War Generation," Education About Asia 14, no. 2 (2009): 43 – 48.
59. Most people suspect economic reasons for this action, which was met with considerable resistance by the capital's inhabitants and very open criticism by parts of the press. One of the reasons for the frustration was the failure of the city government to give any (let alone convincing) reasons for the tree-cutting from the outset.

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