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### **Energy for Sustainable Development**



# What motivates Vietnam to strive for a low-carbon economy? — On the drivers of climate policy in a developing country



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#### ABSTRACT

Though climate change is an urgent problem especially for vulnerable developing countries, international negotiations are in a gridlock. Standard game-theoretic models that describe climate change mitigation as a public good problem predict few incentives for individual countries to act. Nevertheless – despite the absence of a globally binding agreement – we can observe some developing countries launching unilateral climate policies. Being one of th\ose, Vietnam has recently announced to strive for a low-carbon economy. Based on interviews with Vietnamese policy makers and other stakeholders, this explorative case study examines Vietnam's motivation for a policy change that has shifted from emphasizing the responsibilities of developed countries for climate change towards accepting responsibility of developing countries to also reduce their emissions. While Vietnam's high vulnerability has contributed to put climate on the political agenda, the policy shift from a pure adaptation towards a mitigation focus was mainly driven by expected multiple climate policy benefits other than climate change abatement (so-called co-benefits). These include restructuring of the economy, addressing energy security concerns and accessing international finance to counteract a phase-out of conventional development assistance. Air quality considerations, by contrast, do not seem to play a major role for Vietnam's shift in climate policy.

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#### Introduction

In recent years high rates of economic growth in developing countries have resulted in a rapid increase of greenhouse gas (GHG) emissions (see e.g. Raupach et al., 2007; Steckel et al., 2011). As a consequence, stronger involvement of developing countries – which currently do not face binding emission reduction targets under the United Nations Framework Convention for Climate Change (UNFCCC)<sup>1</sup> – is regarded as essential in order to achieve ambitious climate stabilization goals (see e.g. UNFCCC, 2011).

However, from the view of standard economic theory, climate policies appear particularly unlikely to be implemented in developing countries for two reasons: first, even though there is no direct one-to-one

relationship between energy use and socio-economic development, in the past it could be observed that high levels of human development were only attained for countries that have crossed a certain minimum threshold of per-capita energy use (Steckel et al., 2013). For low income countries economic development has been closely related to successful industrialization based on fossil fuel resource use and thus rising GHG emissions (Jakob et al., 2012). Despite the deficiency of GDP and energy growth in reflecting improvements in human development (see e.g. Rao et al., 2014), many countries suspect that climate change mitigation could adversely affect development objectives (Jakob and Steckel, 2014) thereby providing a clear disincentive for developing countries to reduce their emissions. Second, mitigating global climate change is generally perceived to raise a collective action problem that requires a global solution. Conventional collective action theory usually regards climate change mitigation as a global public good. In the respective models a country's benefits from avoiding one's own climate damages do not suffice to incentivize this country to bear the costs related to climate change mitigation efforts as damages suffered by the rest of the world are not internalized in its decision on how much to emit. Consequently, such models predict a pronounced incentive to free-ride on others' abatement without reducing one's own emissions (Carraro and Siniscalco, 1993; Barrett, 1994). Hence, in such a setting, individual countries will not voluntarily engage in reducing GHG emissions without

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<sup>&</sup>lt;sup>1</sup> According to the UNFCCC's principle of 'common but differentiated responsibilities', which acknowledges that industrialized countries are responsible for the largest share of past GHG emissions, while developing countries are expected to be affected the most by the impacts of climate change (IPCC, 2007) and have the least capabilities to adapt to them, binding emission reduction targets under the Kyoto Protocol only apply for industrialized countries and economies in transition (listed in the Protocol's Annex B).

a globally binding and externally enforced regulation (Brennan, 2009; Ostrom, 2010).

Yet, in contrast to those theoretical considerations that view mitigating climate change as the sole benefit of emission reductions, some developing countries have recently announced unilateral emissions abatement policies (see Townshend et al., 2013). Ostrom (2010) argues that this observation can be explained by benefits other than the global benefit of mitigating climate change ('co-benefits', such as energy security or reduced local air pollution) that are usually ignored by conventional game theoretic approaches to model international climate change negotiations. Policy makers will usually pursue multiple objectives, among which climate change mitigation is only one. From a climate change perspective, a co-benefit is the indirect effect of climate policy on a non-climate objective (see e.g. IPCC, 2014, WGIII, Ch.3, p.36). As a consequence, climate policy might yield benefits of a more local nature - such as increased energy security or improved air quality - that incentivize countries to engage in climate policy even without a global climate agreement. As pledges made on the international level will first need to be discussed and finally implemented and enforced on the national policy level, a better understanding of individual countries' reasons to voluntarily engage in mitigation policy would also generate important insights on how to improve global cooperation on climate change mitigation.

This study examines the underlying motivations for unilateral climate measures adopted in Vietnam. From our perspective, Vietnam constitutes a very interesting example. While it has exhibited high growth rates in both economic terms as well as with respect to GHG emissions in the last decades (see Vietnam's economic development and energy system section) it is also highly vulnerable to climate change. At the same time, it has not yet attained the same political as well as scientific attention as bigger developing countries such as China or India.

Despite the important role of developing countries for achieving a low climate stabilization target, studies examining the motivations of national climate policy making in developing countries - especially on smaller countries - are relatively scarce. Atteridge et al. (2012) examine drivers for climate policy in India on the international, national and state levels, highlighting how climate considerations are embedded in broader concerns related to national and sub-national development interests as well as foreign relations. Dubash (2013) provides an assessment of the role played by co-benefits and equity considerations in India's climate discourse and points out that energy security is a crucial driving factor behind efforts to introduce policies to reduce emissions. Escribano (2013) analyzes the interplay of divergent political, economic, social, and environmental factors driving the formulation of energy policy in Ecuador. One of the key results of this study is that Ecuador's energy policy is severely constrained by other policy objectives related to financing as well as distributional concerns. Quitzow et al. (2011) compare environmental governance (including climate issues) in India, China, Vietnam and Indonesia. They identify ambitious policy initiatives in all four countries that are, however, hampered by a lack of capacity. Recently, a selection of case studies has been conducted, summarized in Garibaldi et al. (2014), comparing and assessing mitigation action concepts of Brazil, Peru, Chile, South Africa, and Colombia. This analysis reveals how mitigation measures crucially depend on the country-specific context, such as the level of institutional capacity.

Existing studies on Vietnam have mostly focused on specific aspects. Fortier (2010) provides a procedural critique of political processes in the run-up to Vietnam's National Target Program to Respond to Climate Change (NTP-RCC). Also mainly focusing on the NTP-RCC, Zink (2013) comprehensively discusses the political and societal dimensions of climate change policy and donor involvement in Vietnam. Rodi et al. (2012) carry out a policy analysis regarding the implementation of the Environmental Protection Tax, and Coxhead and Nguyen (2011), Coxhead et al. (2013) as well as Willenbockel (2011) examine its expected macroeconomic and distributional implications with numerical

models. Toan et al. (2011) give an overview of Vietnam's energy system, provide forecasts on supply and demand, and review recent energy policies. Do and Sharma (2011) likewise review Vietnam's recent energy policy and discuss challenges faced by its energy sector. Nguyen and HaDuong (2009) assess the potential of renewable energy in Vietnam and discuss barriers to their diffusion, while Nguyen (2007) focuses on wind energy potentials and discusses policies to promote their uptake.

To our knowledge, there is no comprehensive assessment of recent climate policies and their underlying motivations in Vietnam to date. This is where this paper aims to make a contribution to the literature. Our policy analysis builds on 23 semi-structured qualitative interviews with Vietnamese policy makers and other stakeholders involved in the policy making process in Vietnam conducted early 2013 as well as available literature. Our interviewees include leading staff of the key Vietnamese ministries involved in the policies under consideration, i.e. the Ministries of Finance (MOF), Planning and Investment (MPI), Industry and Trade (MOIT), Natural Resources and Environment (MoNRE) and Agriculture and Rural Development (MARD), as well as associated advisory units such as the Institute of Strategy and Policy on Natural Resources and Environment (ISPONRE) and the Central Institute for Economic Management (CIEM). Furthermore, we conducted interviews with partners from development cooperation agencies from bilateral donors (Germany's GIZ, UK's DFID, South Korea's KOICA, Japan's JICA) and multilateral donors (UNDP, World Bank, ADB) as well as with experts from the policy foundation Friedrich-Ebert-Stiftung and from one of the few existing local NGOs Climate Change Resilience Center. A list of all interview partners can be found in the Appendix. We concentrate on policies that (at least indirectly) aim to put a price on carbon or internalize technology spillovers (i.e. cost reductions due to increased uptake of a certain technology, e.g. by means of 'learning-by-doing'), as these policies are generally regarded to be essential in order to achieve significant emission reductions (Jaffe et al., 2005). These policies mainly affect the power and industry sectors, which are hence the focus of this study.2

This paper is structured as follows: First, we provide some general information about Vietnam's development, including an in-depth analysis of energy related emission drivers. Second, we introduce climate and energy related policies in Vietnam. Third, using an inductive approach, we identify and evaluate the different motivating factors to engage in climate measures mentioned in the interviews divided into domestic (e.g. vulnerability to climate change, energy security, economic growth) and external factors (e.g. donors, international setting). We continue with discussing how the observed policy change in Vietnam can be explained from the perspective of Kingdon's (1995) 'multiple streams framework' and finally conclude.

#### Vietnam's economic development and energy system

Since its reunification in 1976, the Socialist Republic of Vietnam is a one-party state ruled by the Communist Party of Vietnam (CPV). In the mid-1980s, the CPV launched a socio-economic reform process ("Doi Moi", literally meaning "renovation"), which allowed private entrepreneurs to participate in the market. It is usually perceived that the setup of the "Doi Moi" process gave impetus to subsequent rapid economic growth, with GDP per capita more than tripling between 1990 and 2010, lifting a large part of the Vietnamese population out of (absolute) poverty. This was accompanied by an outstanding social transformation significantly improving important developing indicators such as life expectancy and the Human Development Index (HDI) (see Table 1). Around 2009 Vietnam has crossed the GDP threshold to be listed as a Low Middle Income country by the World Bank. At the same time, in the last two decades, inflows from net official development assistance (ODA) have played a major role for Vietnam amounting to approximately

<sup>&</sup>lt;sup>2</sup> Though the agricultural sector in Vietnam does also play a role concerning climate change considerations, it cannot be covered in the scope of this study.

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