The Viet Nam Green Growth Strategy: A review of specificities, indicators and research perspectives

Authors: Jerome Meessen[1], Claude Croizer[2], Paul Verlé[3]
Theme: B.5: Modeles de transition.

1. Abstract

Viet Nam has experienced a rapid economic growth over the last 20 years, bringing social improvements but also raising new challenges. Therefore, in 2012 the government adopted an ambitious Viet Nam National Green Growth Strategy (VNGGS) with as main objectives to reduce the intensity of the country's economy in terms of energy consumption and greenhouse gases emissions (GHG), and to boost 'green' economy sectors. In this paper, we analyze the VNGGS by discussing (1) specificities at the light of other Asian green growth strategies and cautions against the "green growth" paradigm, (2) relevant monitoring indicators and (3) recommendations for scientific research.

2. Introduction

Following growth rates of >6% per year for over two decades, the Vietnamese GDP reached 1,900 USD per capita and is considered a lower middle-income country [WB 2014a]. However, this growth relied on the exploitation of non-renewable natural resources and on the development of an intensive energy requiring industry [LEDS 2014] and resulted in poor air quality and high pollution in main urban areas. Major environmental, economic and social risks have been identified [Chappoz 2013]. Under the 'Business-as-Usual' (BAU) scenario, GHG emissions are expected to double between by 2020 and more than triple by 2030, reaching per-capita level comparable to Western countries in 2012 [MONRE2014]. Viet Nam is also expected to soon become a net importer of primary energy, mainly driven by an increasing share of coal-fired electricity production [WB 2014b, UNDP 2014]. The main drivers to justify these expectations are the economic and demographic growth and rising living standards.

Similar trends were observed in other countries. In Asia over the last two decades, environmental degradation has been caused by rapid urbanization and motorization, energy market bias favoring fossil fuels consumption, inefficiencies in production and use of energy resources, weak functioning of various government levels (national, regional, local), lack of integrated planning and weak environmental agencies [Zhang 2008]. In South-East Asia (SEA), there is considerable scope to improve the energy efficiency [IEA 2013]. Outdoor air pollution is estimated to have caused nearly 200,000 deaths in SEA in 2010, with heavy associated costs [OECD 2014]. GHG emissions in SEA have more than tripled between 1990 and 2011. In addition, SEA countries are among the most vulnerable to climate change.

This analysis is also relevant for Viet Nam where rising sea level and salinization affect the economic activity of coastal regions and of the Red River and Mekong Deltas, while extreme meteorological events severely impact the poorer populations located in the mountainous areas [UNDP 2014].

[1] Author for correspondence: jerome.meessen@btcctb.org, Belgian Technical Cooperation (BTC) Viet Nam, PhD in Engineering Sciences.
[2] claude.croizer@btcctb.org, BTC, MSc in Environment Management
[3] paul.verle@btcctb.org, BTC Brussels, Medical Doctor, MSc Parasitology

Therefore, in 2012 Viet Nam adopted an ambitious National Green Growth Strategy (VNGGS) to reduce the energy consumption and greenhouse gases emissions (GHG), and to boost 'green' economy sectors. In this paper specific characteristics and monitoring indicators of VNGGS are discussed and research perspectives identified to nourish policy feedback.

3. The Green Growth Paradigm

Under the framework of the Rio+20 conference, the concept of Green Growth (GG) emerged as a central tool to contribute to sustainable development. The main underlying assumption is that a system based on less natural capital erosion can continue to foster economic growth and development [OECD 2011]. The GG paradigm includes not only favoring new economic growth opportunities but also mitigating risks that compromise growth (e.g. indirect costs of managing pollution or health degradation)[Janicke 2012]. Therefore, GG must catalyze investment and innovation and target new economic opportunities. Variations of the GG concept have been proposed, to integrate social inclusion [UNEP 2011] or to take into account cultural traditions [AASA 2011].

However, the GG concept has also been criticized. A fundamental worry is the doubt that economic growth can actually be decoupled from socio-environmental damages and natural resources exploitation. So far, positive examples are limited to "relative decoupling" where environmental damages are still increasing but at lower rate than GDP [Jackson 2009]. The GG approach does not include a holistic approach integrating the systemic complexity and interconnections of political, governance, cultural, economic and ecological dimensions. There are limitations in estimating the value of the environmental benefits and human impacts of GG approaches and inefficiencies of market-based mechanisms have been observed [Spash 2014]. The potential shortcomings are more obvious when the GG paradigm is dominating the overall policy and development vision. Extending the scope beyond the core GG principles (e.g. by taking cultural dimensions into account) is one way to cope with criticism. To tackle the issue of sustainability, complementary policies in parallel with GG, could be launched, with the challenge to find the right balance between policy coherence and their enforcement. The GG approach could also be used as an initial step towards a larger society transition [Arnsperger 2009].

Bhutan introduced a *New Development Paradigm* (NDP) and the Gross National Happiness (GNH) indicator tackling the main limitations of the GG concept. NDP is a holistic approach based on the interconnectedness between human, natural, social and economic resource. It focuses on sustainability and takes traditional cultural values into account [NDP 2013]. Four pillars form the structure of the GNH indicator: i) environmental conservation, ii) sustainable and equitable socio-economic development, iii) preservation and promotion of culture and iv) good governance. NDP became a source of inspiration for Western countries that are facing a drop of confidence in purely GDP-based growth policy [Cassiers 2014].

4. The Viet Nam National Green Growth Strategy (VNGGS)

VNGGS has been inspired by green growth core principles but also encompassing a cultural dimension. Implementation priorities focus on integrating GG within the planning process and strengthening the legal and institutional framework [VNGGAP 2014]. Investment guidelines for green projects and a funding entity to facilitate access to international climate finance are under development. VNGGS is structured around 3 strategic tasks [VNGGS 2012]:

1. **Reducing GHG emissions** and promoting the use of clean and renewable energy. After 2020, it targets an absolute decoupling of GHG emissions from economic growth, i.e. a decrease of damages linked to emissions.
2. **Greening production** based on i) Implementation of a *clean industrialization* strategy via adjusting sector master plans; ii) Development of green industry, agriculture, technologies and equipment; iii) Investment in natural capital; iv) Prevention and treatment of pollution.
   VNGGS aims to reduce external costs but it is based on marginal carbon cost-abatement studies, which do not integrate externalities [WB 2014b].
3. **Greening lifestyle** where traditional lifestyle is combined with means to create quality and traditionally rooted living standards, including the creation of green jobs. New consumption modes should prevent that environmental benefits are counterbalanced by increased consumption.

VNGGS is ambitious compared to strategies of neighboring countries [OECD 2014,Jackob 2013], while key elements respond to usual GG limitations (Table 1). Non-environmental dimensions and the sustainability issue are integrated or covered by other policies. The demand linked to the emerging urban middle class should not be underestimated [King 2014]. Tensions could appear between traditional Asian lifestyle and new consumption patterns reflecting new needs of material goods accumulation [AASA 2011, Arnsperger 2009]. The VNGGS emphasis on traditional lifestyle may be the key to avoid such tensions.

Table 1: Main stakes of the VNGGS compared with NDP pillars

NDP pillars	Energy and GHG	Green production	Lifestyle
Environmental conservation	• Target Absolute GHG decoupling • Forestry conservation • Indirect Impact of new energy sources	• Actual GHG-GDP decoupling • Environmental impact of green industry and modern agriculture	• Health and security • Indirect GHG emissions of new consumption modes • Rebound effect
Sustainable and equitable socio-economic development	• Fossil fuels subsidies and Climate finance • Investment cycles and energy market uncertainty • Energy dependency (coal) • Health and security	• Energy pricing • Energy efficiency potential • Quality of new green jobs	• Long-term Energy price for residential sector and citizens
Preservation and promotion of culture	• Population Resettlement • “Harmony with nature”	• Agriculture modes	• Gap between traditional Asian culture and new consumption of emerging middle-class[AASA 2011]
Good governance	• Decentralization of energy production sources • Reliability of GG finance flows	• Industry Accountability for energy efficiency • Public-private partnerships	• Renewable energy production by residential sector or communities

5. Monitoring indicators

Indicators to monitor VNGGS should be multi-dimensional. GG indicators adapted to the SEA context have been proposed, grouped into 5 categories [Kim 2014; OECD 2014]:

- Socio-economic context and characteristics of growth;
- Environmental and resource productivity;

- Natural asset resources;
- Environmental dimension of quality of life;
- Economic opportunities and policy response (e.g. Official Development Assistance).

These indicators are easily measurable and balanced between 'green' and 'growth'. However, complementary indicators for VNGGS monitoring would be useful, such as share of public transport or share of coal-fired power supply. Also monitoring the balance between modernization and traditional lifestyle would be useful, for which NDP could be an inspiration.

6. Conclusion and recommendations

The VNGGS is ambitious by taking the best of other green growth frameworks and addressing country specific challenges. Sustainability, coherence between the policies and their enforcement are key issues. Therefore, Viet Nam will need to continue strengthening its institutional capacity, tackling economic reforms, adopting clean technologies and paying attention to the evolving consumption patterns, while assuring adapted monitoring. Appropriate research could also support Viet Nam and countries facing similar problems. The tension between new consumption patterns and traditional Asian lifestyles require close follow-up, taking into account the context. The role of different GG stakeholders should be clarified. An evaluation of the full cost and sustainability of different options is essential.

7. Main References

[AASA 2011] The Association of Academies of Sciences in Asia (AASA), *Towards a sustainable Asia – Green Transition and Innovation,* Science Press/Springer, Beijing, 2011.

[Arnsperger 2009] C. Arnsperger, *Ethique de l'existence post-capitaliste*, 2009.

[Cassiers 2014] I. Cassiers & G. Thiry *A High-Stake Shift: turning the tide from GDP to new prosperity Indicators*, 2014.

[Jackob 2013] K. Jacob *et al. Green Growth strategies in Asia, drivers and political entry points*, FES International Policy Analysis, 2013.

[Jackson, 2009] Jackson *Prosperity without growth - economics for a finite planet*. Earthscan, 2009.

[Janicke 2012] M. Janicke *Green Growth': From a growing eco-industry to economic sustainability*, Energy Policy 48, p 13–21, 2012.

[Kim 2014] Kim *et al. A new approach to measuring green growth: Application to the OECD and Korea*, Futures, Vol. 63, p 37–48, 2014.

[King 2008] V.T. King, *The middle class in Southeast Asia: diversities, identities, comparisons and the Vietnamese case*, IJAPS, Vol.4, 2, 2008.

[Chappoz 2013] L. Chappoz & B. Laponche, *Les politiques d'efficacité énergétique en Chine, Inde, Indonésie, Thaïlande et Vietnam*, AFD working paper, 2013.

[LEDS 2014] LEDS-GP *Case study: the subnational integration of the Viet Nam Green Growth Strategy*, 2014.

[NDP 2013] NDP Steering Committee and Secretariat, *Happiness: Towards a new development paradigm - Report of the Kingdom of Bhutan*, 2013.

[OECD2014] OECD *Towards Green Growth in Southeast Asia*, Nov. 2014

[Spash 2014] C.L. Spash *Better Growth, Helping the Paris COP-out? Fallacies and Omissions of the New Climate Economy Report*, SRE - Discussion Paper, 2014.

[Zhang 2008] Z. Zhang, *Asian energy and environmental policy: promoting growth while preserving the environment*, Energy Policy 36, 3905–3924, 2008.

Other References and data sources: World Bank, IEA, OECD, UNEP, UNDP, Viet Nam government decisions and communications