

**Sustainable Development Goals and Indicators for a Small Planet**

**Securing Means of Implementation in Viet Nam**

An Output of the Asia-Europe Environment Forum (ENVforum)

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## **Sustainable Development Goals and Indicators for a Small Planet Securing Means of Implementation in Viet Nam**

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## PREFACE & ACKNOWLEDGEMENTS

Viet Nam's shift from central planning to a market economy supported by economic and financial reforms has transformed one of the poorest countries into a lower-middle income nation. These actions translated into a significant growth rate and a stable macroeconomic situation.

Assuming the continuation of the reforms, the country has a notable development potential. With the changing socio-economic outlook, sustainable growth will offer new opportunities.

Viet Nam has been very successful in the implementation of the Millennium Development Goals (MDGs). Remarkable progress on poverty reduction, increased quality of life and social security has been achieved over the last 20 years.

As Viet Nam continues its structural reforms and modernisation, the challenges relating to sustainable development and climate change still need to be addressed. Its economic growth generated inequality challenges, food security issues and compromised environmental protection.

At the global level, debate on the post-2015 development agenda and follow-up on MDGs have led to the negotiation of Sustainable Development Goals (SDGs) that are to replace them. The negotiation process was managed by the United Nations through the Open Working Group (OWG), a specialised group that had been tasked with preparing a proposal on the SDGs. Following the completion of the OWG's proposal, further negotiations have been on-going in preparation for the upcoming UN Summit to adopt the post-2015 development agenda.

Viet Nam, a G77 plus China negotiating partner, is an active actor in these negotiations. The importance of knowledge and preparedness for entering multilateral negotiations cannot be underestimated, especially concerning poverty and inequality, climate change and energy, and sustainable agriculture. This publication presents an overview of Viet Nam's experience in these three areas in the context of global SDGs negotiation on means of implementation. It offers options for governance that may support successful implementation of SDGs – based on the experience of MDGs and previous successfully implemented policies in Viet Nam.

The findings of this national country research build on the ENVforum's three-part "Small Planet" series on SDGs:

- 1) Sustainable Development Goals and Indicators for a Small Planet. Part I: Methodology and Goal Framework;
- 2) Sustainable Development Goals and Indicators for a Small Planet. Part II: Measuring Sustainability; and
- 3) Sustainable Development Goals and Indicators for a Small Planet. Part III: Means of Implementation.

The Vietnamese case study is the result of a collaborative research endeavour conducted within the Asia-Europe Environment Forum programme (ENVforum), led by Dr László Pintér and Grażyna Puławska. The researchers involved in the project were Nguyen Anh Phong, Nguyen Minh Khoa, Vu Hoang Duong, Grażyna Puławska and Dara Lee. This study would not have been possible without the support of Thierry Schwarz, Director of the Political and Economic Department in Asia-Europe Foundation (ASEF).

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Grażyna PUŁAWSKA  
Asia-Europe Environment Forum Secretariat

## LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ARDS	Agriculture and Rural Development Strategy
ARP	Agricultural Restructuring Plan
ASEF	Asia-Europe Foundation
ASEM	Asia-Europe Meeting
CC	Climate Change
CDM	Clean Development Mechanism
CEDAW	Committee on the Elimination of Discrimination Against Women
CEMA	Committee for Ethnic Minorities Affairs
CERs	Certified Emissions Reductions
CO <sub>2</sub>	Carbon Dioxide
CPC	Communal People Committee
CPI	Consumer Price Index
CRC	Convention on the Rights of the Child
CTF	Clean Technology Fund
DOIT	Departments of Industry and Trade
DOLISA	Department of Labour, Invalids and Social Affairs
DONRE	Department of Natural Resources and Environment
DPC	District Peoples Committee
ERAV	Electricity Regulatory Authority of Viet Nam
ESI	Environmental Sustainability Index
EVN	Viet Nam Electricity
FAO	Food and Agriculture Organization
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GSO	General Statistics Office
HDI	Human Development Index
IBRD	International Bank for Reconstruction and Development
ICOR	Incremental Capital Output Ratio
IFC	International Finance Corporation
IPP	Independent Power Producer
IPSARD	Institute of Policy and Strategy for Agriculture and Rural Development
JICA	Japan International Cooperation Agency

kWh	Kilowatt-hour
LDUs	Local Distribution Units
M&E	Monitoring and Evaluation
MARD	Ministry of Agriculture and Rural Development
MDG	Millennium Development Goal
MIC	Ministry of Information and Communications
MOET	Ministry of Education and Training
MOF	Ministry of Finance
Mol	Means of Implementation
MOIT	Ministry of Industry and Trade
MOLISA	Ministry of Labour, Invalids and Social Affairs
MONRE	Ministry of Natural Resources and Environment
MOT	Ministry of Transport
MPI	Ministry of Planning and Investment
MRV	Measuring, Reporting and Verification
MW	Megawatts
NAMA	Nationally Appropriate Mitigation Action
NCCC	National Climate Change Committee
NCSD	National Council on Sustainable Development
NPT	National Power Transmission Corporation
NTPPR	National Target Program on Poverty Reduction
NTP-RCC	National Target Program to Respond to Climate Change
NTP-SPR	National Target Program on Sustainable Poverty Reduction
ODA	Official Development Assistance
OSD	Office on Sustainable Development
OWG	Open Working Group
PCs	Power Companies
PPC	Provincial People's Committees
PVN	Viet Nam National Petroleum Corporation
REDD	Reducing Emissions from Deforestation and Degradation
SCSD	Steering Committee of Sustainable Development
SD	Sustainable Development
SDG	Sustainable Development Goal
SEDP	Socio-Economic Development Plan
SEDS	Socio-Economic Development Strategy
SP-RCC	Support Program to Respond to Climate Change
TOE	Tonne of Oil Equivalent

TWh	Terawatt-hours
UNCSD	United Nations Conference on Sustainable Development
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN TST	UN Technical Support Team
USDA	United States Department of Agriculture
VietGAP	Vietnam Good Agriculture Practice
VBCSD	Vietnam Business Council on Sustainable Development
VEPF	Vietnam Environmental Protection Fund
VINACOMIN	Vietnam Coal and Minerals Industries Group
VND	Vietnamese Dong
WB	World Bank

## INTRODUCTION

The post-2015 development agenda brings a unique opportunity to improve welfare through poverty eradication, economic advancement, and reversal of the deterioration of the global environment. It offers also an opportunity to convene social and political dialogue about sustainable development at the global, regional and national levels.

This is not the first time the international community embarks on such an effort. Agenda 21, the non-binding action plan adopted at the 1992 Earth Summit was similarly broad in scope and ambitious in intent (United Nations, 1993). However, while Agenda 21 laid down key priorities and principles, it offered few specifics. Almost a decade later, in 2000, United Nations (UN) Member States agreed on specific Millennium Development Goals (MDGs) after the Millennium Summit (United Nations, 2000). The MDGs were concrete, time-bound and tangible, primarily focused on poverty reduction, but did not substantively touch on many other key aspects of sustainable development.

While there has been progress towards some of the MDGs, the UN Member States at the 2012 United Nations Conference on Sustainable Development (UNCSD) agreed to launch a process to identify a new set of Sustainable Development Goals (SDGs). They agreed that the goals should be limited in number, aspirational and easy to communicate. They also expressed the need for the goals to be applicable to all countries and to address in a balanced way all key aspects of sustainable development. To this end, in early 2013, an Open Working Group (OWG) of the UN General Assembly was established. By September 2014, the OWG developed a draft set of SDGs, and the UN Secretary General issued a Synthesis Report (United Nations, 2014a; United Nations, 2014b). According to the plan, the SDGs would be finalised and adopted in September 2015 by the UN General Assembly at the United Nations Summit on the post-2015 agenda.

This case study offers the opportunity to learn from and expand upon the previous era of development initiatives and the MDGs. It also brings new challenges, especially considering the broader scope of the SDGs. Key among these challenges are effective “means of implementation”. They are perceived to be critical in translating the commitments outlined in the SDGs into plausible policies that in turn lead to sustainable development outcomes. Related discussions include finance, education, access to technology, research and development, and a wide range of other factors, with no formal agreement on its elements.

Its main purpose is to test and demonstrate the feasibility and usefulness of the means of implementation assessment approach at the country level, with particular emphasis on governance, and focusing on high-priority sectors represented by specific SDGs.

Viet Nam has a dynamic economy and a significant tradition of interest in sustainable development, illustrated by several pieces of legislation in effect and institutions whose mandate explicitly refers to sustainable development. As a lower-middle-income country, Viet Nam has made significant progress in fighting poverty. Poverty persists particularly among ethnic minorities and the new urban poor, and inequality is rising (Berliner *et al.*, 2013). There are significant risks on the environmental front, making Viet Nam vulnerable to climate change, with inadequate infrastructure in handling the impacts associated with rapid growth. Nonetheless, Viet Nam is a very active member of the OWG – sharing a seat with Bhutan and Thailand – and takes a high interest in several aspects of the process, including means of implementation.

Once the SDGs are approved by the United Nations General Assembly in September 2015, Viet Nam, with all other countries, will need to initiate a process to integrate the SDGs with national priorities, identify and pursue necessary policy changes, and ensure the required institutional framework to implement and monitor the goals. This report aims to support ASEM countries in this effort by offering a selection of thematic case studies based on practical experience and strategic guidance for national-level SDG implementation. It serves as a start to the longer journey in exploring the different facets of good governance in creating effective means of implementation – both within countries and at the transnational level.

This report presents the outcomes of the national research on means of implementation conducted in Viet Nam. It builds on results of the Small Planet Part I and Part II study series on the Sustainable Development Goals and Indicators undertaken by the Asia-Europe Foundation (ASEF) (Pinter *et al.*, 2013; Pinter *et al.*, 2014). These studies built on existing policies and national strategic documents, such as sustainable development strategies and integrated development plans in 14 countries<sup>1</sup> from Asia and Europe. Their common underlying assumption was that while sustainable development progress over the last decades has been uneven and often unsatisfactory, in most cases countries seriously interested in launching a new generation of more effective sustainable development initiatives around the SDGs had a base they could build on.

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1. Australia, Bangladesh, China, France, Germany, Hungary, India, Indonesia, Japan, Poland, Republic of Korea, Singapore, Sweden and Switzerland.

## CONCLUSIONS AND CONSIDERATIONS FOR THE WAY FORWARD

Implementation of the SDGs will require efforts of multiple stakeholders at different governance levels. The agreed goals would most likely tackle a number of issues that would require setting priorities at the country level in order to make it happen, Given the number of goals and targets being currently considered in the negotiation process, there is a need for countries to decide on national targets that can contribute to the global goals according to their capacity and strategic development priorities at the national level.

The task of implementing SDGs will be a complex one. Financing will be limited, therefore it is crucial to plan ahead and have a realistic agenda in place. It would be also useful to make an overview of existing policies that already tracked SDGs-related areas (as was done in this study for limited thematic scope). This overview can help to avoid doubling the structures dedicated to monitor similar issues and build on existing mechanisms that have been set.

This country study presents an overview of multiple mechanisms already in place, on which the SDGs implementation framework should build. Taking into account Viet Nam's rich experience in achieving the MDGs, the SDGs implementation should be based on the already existing framework that has been tested.

The SDGs implementation challenges are usually referring to the lessons learnt from the MDGs, For the MDGs, the task was easier though. They were limited in number, realistic and relatively easy to measure. They were also supported by the international community that include resource mobilisation and support from various financial institutions, development agencies and non-governmental organisations. The challenges related to SDGs are much greater due to broader scope and ambition level.

For national level it would be up to countries to determine their own targets and monitoring systems in order to comply with the global monitoring system.

In order to ensure the successful implementation of SDGs it is important to take into account that they will be quite expensive to implement, particularly for the developing countries. Therefore, building on existing structures is pivotal for their future. As they are universal, it would be important to contextualise them into national realities. This will allow for greater ownership instead of joining other UN agreements that have not been implemented up to date.

In order to make SDGs realistic it is recommended to:

- 1) look at what already exists in countries, their national documents and sectoral strategies and map how SDGs can be integrated into existing documents.
- 2) prioritise and decide on the national targets based on available resources on the national level
- 3) propose targets that can be achieved if there will be available funding on the international level dedicated to SDGs
- 4) prepare implementation and monitoring framework based on the MDGs experience.

Those steps will require limited number of proposed targets to keep the focus that will be dependant on domestic resources mobilisation that may include actions such as:

- - Improving tax collection

- Addressing corruption challenges
- Facilitate access to banking, financial services and insurance (especially for the poorest)
- Eliminating as much as possible subsidies on fossil-fuels and subsidies to agriculture
- Providing support for sustainable practices by modifying the wording in existing policies and implementing new ones
- Seizing existing opportunity to internalise externalities.

Dynamism, however, is not limited to economic performance. Viet Nam's performance in the environmental and social dimensions of sustainable development has also improved over the last decades, as measured by the Human Development Index (HDI) and the Environmental Performance Index (EPI). Viet Nam is entering the era of the new global development agenda beyond 2015 with significant momentum.

Yet, as the previous chapters have also shown, the country still has a long way to go before it breaks to a mid-level development status. While some earlier problems continue to persist, new ones have emerged, such as growing inequality, pockets of enduring poverty, and production inefficiencies. Viet Nam is possibly even further from achieving sufficient advances in environmental and social sustainability, indicated by concerns about vulnerability to climate change, ecosystem degradation and the loss of natural resources (Government of Vietnam, 2012).

#### *Building on Existing Foundations*

One of the key assumptions in ASEF's Small Planet report series was that national efforts to develop and implement SDGs should build on existing structures and institutions. In all Small Planet countries national strategies and governance structure address to certain extent the challenges discussed by the OWG. Moreover, Viet Nam has significant experience with implementation of MDGs that will definitely help with addressing SDGs. The review of Viet Nam's existing sustainable development governance architecture revealed high-level and sector-specific policy frameworks that facilitate the implementation of policies and programmes in various sector contexts.

At the highest level, the National Council on Sustainable Development is responsible for goal-setting and coordination, assisted by a Sustainable Development Office. Another relevant national programme identified here is the Green Growth Action Plan for 2014–2020, which aims for “green and inclusive growth” at the sector level. The Ministry of Agriculture and Rural Development was shown to implement the Action Plan through master plans and strategies. In the energy sector, Viet Nam's National Energy Development Strategy until 2020 and vision for 2050 is already in place and represents a starting point. Both include long-term goals and targets that are crucial for considering SDGs implementation. More specific instruments, such as the National Power Development Plan 2011–2030, then ensure getting the work done.

Given the country's administrative structure, the cross-scale coordination between the national, provincial and municipal levels is as important as the coordination between ministries and sectors. Effective cross-scale coordination can help decentralise delivery, in line with the principle of subsidiarity, and delegate responsibility to levels of governance best equipped for getting the work done. The Ministry of Natural Resources and Environment's role as a coordinator of climate change activities at the national level, supported by Provincial Climate Change Committees, is a good example.

As a conclusion, there is no need for additional mechanisms and structures. It would be sufficient to use the existing governance framework prepared for implementation of Agenda 21 accompanied by ability to mobilise resources.

### *Role of Investment*

The role of investment is important, whether in the context of assisting farmers to adopt more resource-conserving and higher-productivity methods, or improving the skills and capabilities of the persistently poor in ethnic minority areas. It plays a role also in sync with the intention to gradually shifting Viet Nam from a position of being largely a producer of basic commodities (such as low-quality rice) to that of higher value-added commodities. This involves better know-how and education, important both in its own right as an SDG, but also as a conduit to achieve other goals.

Investment acts as an enabler. While government finance was dominant in the past, there is now an increasing role for the private sector, potentially including foreign investors. The Ministry of Finance will of course continue to play a major role, such as stepping in with programmes in areas that are financially unviable for the private sector, where compensation is needed under social programmes (e.g., energy subsidies for the poor), or where public procurement can help increase innovation, as in the case of renewable energy.

### *Solutions addressing emerging challenges*

Closing the gap between new SDGs and present status will require some revisions to the existing policy instruments, to accommodate an adequate response to the multidimensional nature of poverty – as opposed to simply a function of income.

In line with the shift to the active involvement of a wider range of actors, bottom-up initiatives and the role of the market, voluntary mechanisms and market-based instruments would need to play a more significant role. Some of these are already present and were reviewed in the previous chapters. VietGAP is an example of an agricultural production standard customised to Viet Nam – but grounded in an international system that can both help meet environmental goals and targets relating to agriculture – while also lead to better value-added products that command a higher price, and thus contribute to improved livelihoods in rural areas. The Prime Minister's endorsement of VietGAP shows that high-level leadership support helps to implement sustainable development as it recognises the importance of such mechanisms.

### *Monitoring and Review*

One of the conditions of effective and accountable governance is the existence of robust and credible monitoring, review and reporting mechanisms. These mechanisms should include a set of clear performance indicators, tied to the goals and targets.

While this study revealed a number of reporting mechanisms at the sector level, it was also obvious there is a need for robust performance indicators. The development of such reporting and review mechanisms can build the indicator system that are being developed for the SDGs by international organizations, as well as Viet Nam's own statistical and monitoring capacities. Furthermore, given the relevance of the SDG agenda for society as a whole, there is a need for "socialising" the monitoring and review, by making its results available to the public in a straightforward form understandable for non-technical audiences.

## RESEARCH OVERVIEW

This study discusses selected implementation challenges and solutions for the currently formulated post-2015 Sustainable Development Goals (SDGs) by reviewing Viet Nam's experience with implementation of international social and environmental objectives at the national level and the challenges relating to the monitoring of implementation.

This study analyses national governance frameworks for implementing sustainable development objectives, including relevant experience from the MDGs and selected international conventions.

Once the SDGs will be approved by the United Nations General Assembly in September 2015, countries will need to integrate them with national priorities, identify and pursue necessary policy changes and ensure the required institutional framework to implement and monitor the goals is in place. Thus, this report aims to support ASEM countries in their effort by offering a selection of thematic case studies based on practical experience and strategic guidance for national-level SDGs implementation.

The approach for this report builds on the methodology developed and used in the Small Planet Part I and Part II study series. An underlying hypothesis of the methodology is that the development of the SDGs and related targets and indicators needs to integrate high-level, global sustainability perspectives and the specific contexts of countries. A schematic representation of the approach that was used for the selection of the goals and sub-goals in Part I is shown in Figure 1. The steps shown were implemented through an international experts based process.

The process began with Step 1, with the consideration of global priorities as agreed by The UN Member States at the Rio+20 Conference in 2012. Step 2 involved the selection of national priorities based on high-level national policy documents on sustainable development in the 14 countries within the research. In Step 3, a preliminary set of 11 illustrative goals and related sub-goals was selected – taking into account the global priorities from Step 1, common national priorities from Step 2 and perspectives offered by science and high-level advisory bodies on the SDGs. Once agreed, this draft set of goals and sub-goals was re-mapped in Step 4 on national priorities in the 14 countries to check their universal validity. Based on this, in Step 5, a dashboard of goals in Part II of the report indicators was presented.

This study focuses on the national level challenges relating to SDGs implementation based on three themes selected as relevant for Viet Nam. Therefore, the starting point for this research was the system of goals and sub-goals relating to three priority areas. Three priority themes relevant for Viet Nam were selected, including poverty, agriculture, and climate change and energy. Table 1 shows these goals and sub-goals as presented in the Small Planet Part I study. The Small Planet goals and sub-goals are considered as illustrative, indicating that they preceded the draft SDGs agreed upon by the OWG. Nonetheless, they are closely comparable, and all three Small Planet SDGs selected for this study also happen to be represented in the OWG's set.

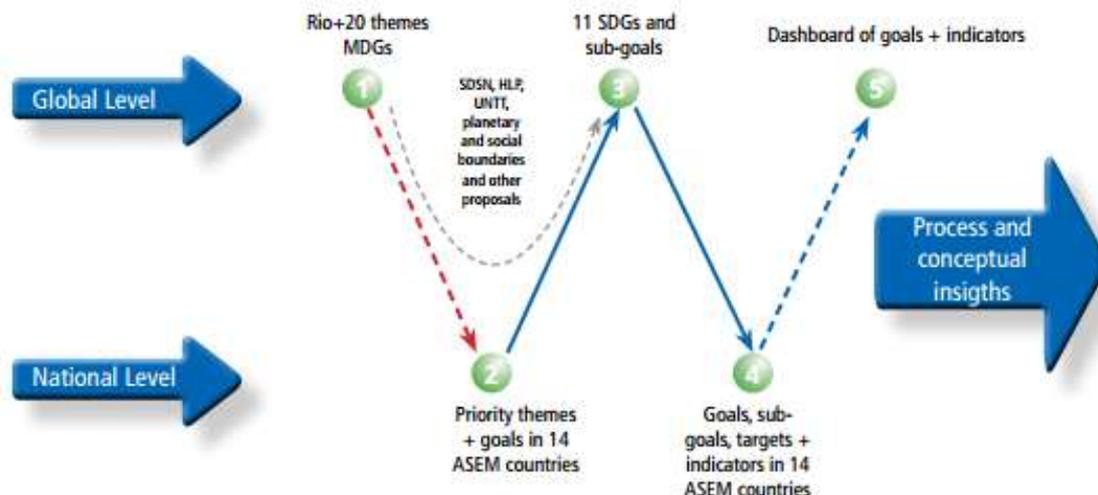


Figure 1: Integrated global-national approach taken in Part I's goal formulation

Priority Themes	Goal Statements	Sub-Goal Statements
1. Poverty and inequality	Poverty and inequality are reduced.	1.1. Intra- and intergenerational social equity for all groups (e.g., women, youth, elderly, indigenous, minorities) is improved. 1.2 Everybody is above the national poverty line in 2015 by 2030. 1.3 Income inequality and risk of poverty have been significantly reduced with the social security system in place.
<b>Goal 7:</b> Food security, sustainable agriculture and fisheries	Sustainable agriculture, food security and universal nutrition are achieved.	7.1. Access to affordable, nutritious and healthy foods at sufficiency levels (tackling hunger and obesity and avoiding food waste) is ensured. 7.2. Productivity is increased via accelerated conversion to sustainable agriculture, fisheries and forestry. 7.3. Effective land-use planning and management are in place and assure equitable access to land. 7.4. The quantity and quality of agroecosystems are maintained without destroying natural ecosystems.
<b>Goal 8:</b> Energy and climate change	Climate change is effectively addressed while access to clean and sustainable energy is significantly improved.	8.1 Everyone has access to sufficient energy, and consumption is efficient and sustainable. 8.2 The generation of clean and sustainable renewables is increased. 8.3 The rate of increase in greenhouse gas (GHG) concentration in the atmosphere is reduced.

Table 1: Goals and sub-goals from Part I of the Small Planet Report covered by the case study in Viet Nam (Pinter et al., 2013)

To assess the suitability of Viet Nam's current governance mechanisms and institutions to implement the selected SDGs, a three-step process was followed:

- 1) Mapping of the national experience of Millennium Development Goals (MDGs) implementation and existing governance framework for sustainable development with emphasis on the three priority themes above. This review covered existing governance

mechanisms, including key sustainable development-related institutions and their relationships.

- 2) Examining existing governance architecture of the selected themes, taking into account key aspects associated with means of implementation.
- 3) Selecting a priority topic in each of the three themes:
  - a. Eliminating poverty in ethnic minority communities in Viet Nam's Northern areas, where poverty is most prevalent
  - b. Ensuring the sustainability of rice production
  - c. Achieving a 100% electrification target

The input to this publication built on the Viet Nam position in OWG negotiations in 2014 and 2015, including the "Common position on Means of Implementation for SDGs" from G77 plus China (United Nations Department of Economic and Social Affairs, n.d.).

Additionally, this publication was put to a thematic consultation organised in November 2014 in Hanoi, Viet Nam on three thematic areas:

- 1) Poverty and Inequality
- 2) Sustainable Agriculture
- 3) Climate Change and Energy

The process involved engaging thematic experts for the three sectors. In Hanoi, three half-day workshops were organised with representatives of relevant governmental agencies and international organisations. Besides contributing to the substance of the research, the workshops also confirmed increasing policy interest in the SDGs and the general importance of engagement in making sustainable development contextually relevant for a given stakeholders.

## 1: GOVERNANCE FRAMEWORK FOR SUSTAINABLE DEVELOPMENT IN VIET NAM: LESSONS LEARNT

Over the last 20 years of its *Doi Moi* economic reform, Viet Nam has issued a large number of programmes and strategies for economic development. The government only started to focus on sustainable development in recent years. In preparation for the Earth Summit in Rio de Janeiro in 1992, the Vietnamese government had, for the first time, approved a “National Plan for Environment and Sustainable Development 1991–2000: Framework for Action”.

In August 2004, the Strategic Orientation for Sustainable Development (Vietnam Agenda 21) was approved. It created the legal foundation for a more comprehensive concept of sustainable development. Agenda 21 was referred to in the subsequent Socio-Economic Development Plan for 2006–2010 (SEDP), where the approach of “rapid and sustainable development” for the industrialisation and modernisation for Viet Nam was announced. The latest Socio-Economic Development Strategy (SEDS) for 2011–2020 also states, “rapid development in close linkage with sustainable development represents an all-thru requirement in the Strategy.”

To achieve the goals of Agenda 21, Viet Nam has established an institutional framework. It is led by the National Council on Sustainable Development (NCSD) and a Sustainable Development Office in the Ministry of Planning and Investment, which serves as the standing office of the NCSD (Figure 2). The NCSD is mandated to advise the Prime Minister, to guide the implementation of the Vietnam Agenda 21 at the national scale, and to monitor and assess the implementation of sustainable development objectives in the country. Sustainable Development Offices have also been set up at the ministerial and local levels. In addition, Viet Nam has established the Vietnam Business Council on Sustainable Development (VBCSD).

The Steering Committee for Sustainable Development (SCSD) of the Ministry of Agriculture and Rural Development (MARD) was established in June 2013 (Decision No. 1276/ QD-BNN-TCCB dated 05/06/2013). The SCSD is chaired by Vice Minister Dr Vu Van Tam, who is also a member of the NSCD, and 13 members from following departments: Planning (as Standing Office); Finance; Science, Technology and Environment; International Cooperation; Crops Production; Livestock Production; Irrigation; Aquaculture Development; Administration of Forestry; Academy of Forest Sciences; Academy of Agriculture Sciences; and the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD). The SCSD is mainly financed by the state budget.

The main tasks of the SCSD are to:

- Develop a programme/action plan for sustainable development of the agriculture and rural development strategy (ARDS) for the period 2015–2020
- Integrate Viet Nam’s SEDS 2011–2020 into the policymaking process; develop and implement development strategy and plan for the ARD sector
- Develop sustainable development criteria in accordance with special conditions of the ARD sector, based on national sustainable development target
- Monitor and evaluate sustainable development targets, within the criteria of the ARD sector
- Improve awareness and capacity of the system of the ARD sector on sustainable development and green growth

- Update information, policy and tools relating to sustainable development and green growth;
- Monitor and evaluate sustainable development and green growth
- Share lessons learnt and research tools

Other ministries, including the Ministry of Natural Resources and Environment (MONRE) and the Ministry of Industry and Trade (MIT), issued decisions to establish their own steering committees of sustainable development, each with their own standing offices located within their respective planning departments (Figure 2).

The steering committees of each of these ministries have the task of annually reporting the results of the Sustainable Development Strategy and the implementation of sustainable development indicators for each sector to the Sustainable Development Office located in the Ministry of Planning and Investment. This monitoring is ultimately reported to the Prime Minister through the NCSD.

Figure 2 the following page illustrates the institutional framework of the various bodies involved in sustainable development activities in Viet Nam, followed by Figure 3 which illustrates the flow of reporting from the ministerial/sectoral level to the national level.

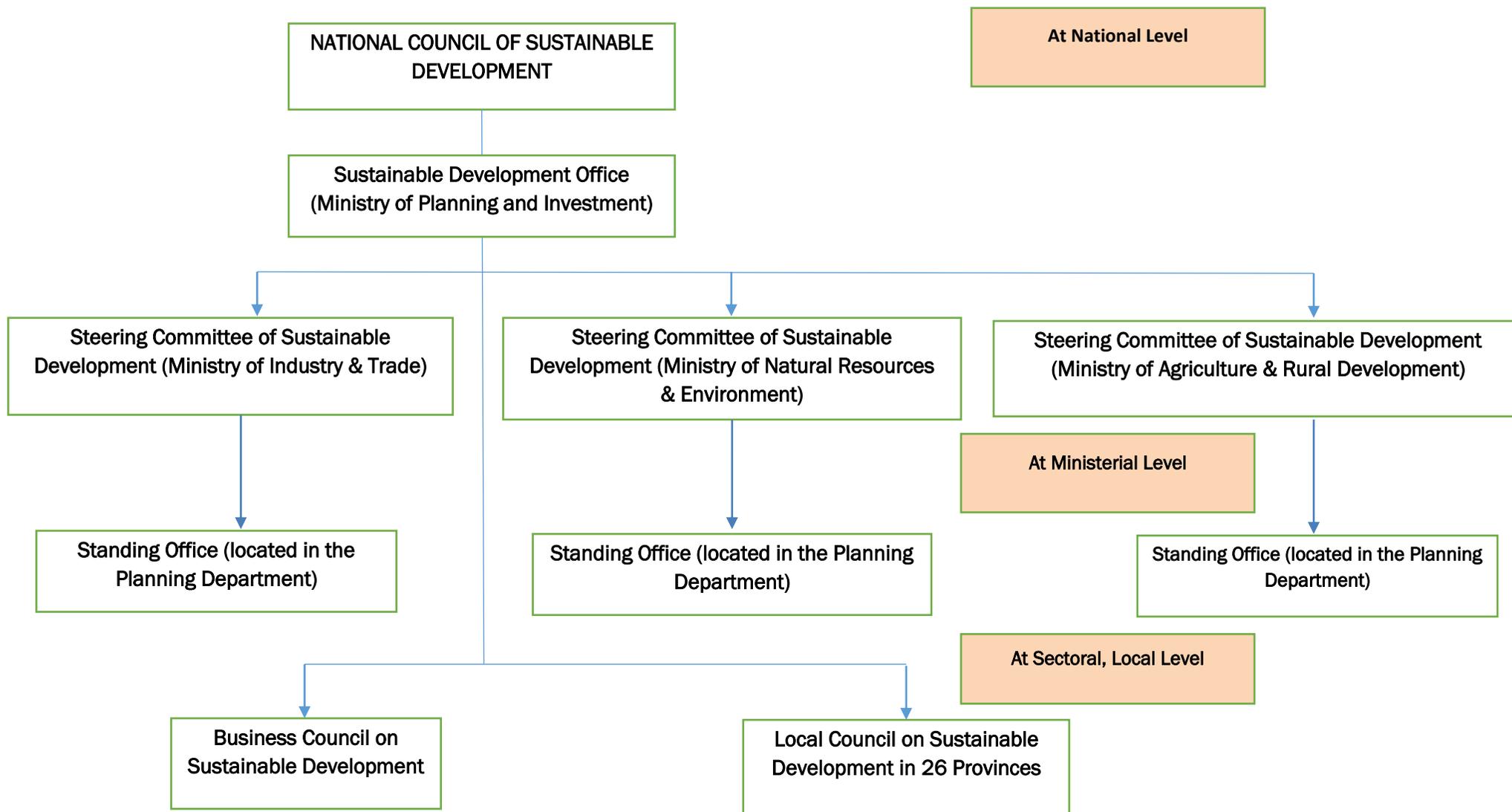
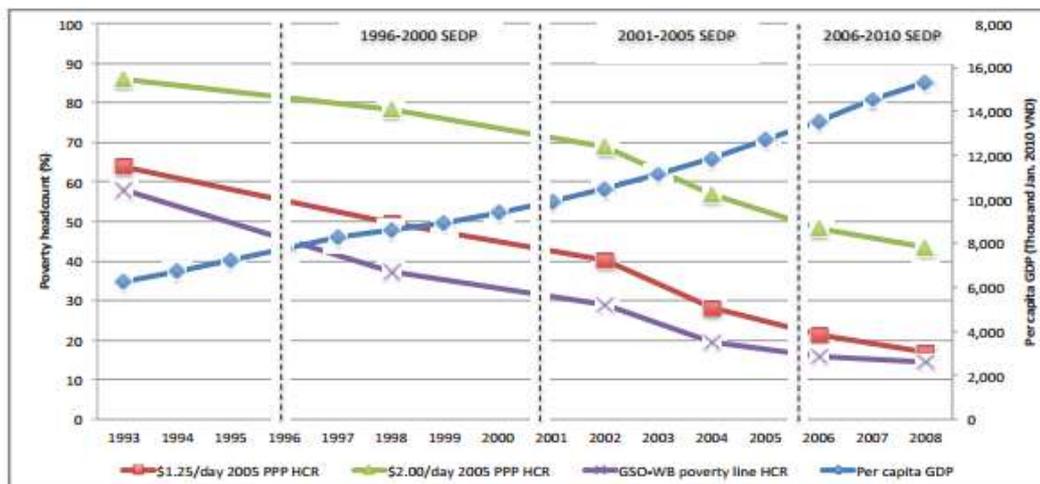


Figure 2: Institutional framework of national sustainable development in Viet Nam



## Review of the Priority Themes: Poverty & Inequality, Sustainable Agriculture, and Climate Change & Energy

It is clear that the last few decades of reform in Viet Nam have brought about overall economic growth, which coincided with a dramatic reduction in poverty during the same period, even if at a cost of increasing inequality (Beresford, 2008; Figure 4).



**Figure 4: GDP per capita growth and poverty reduction**  
(Source: World Bank, 2012)

Though Viet Nam's development has been commendable, the question remains: To what extent is Viet Nam's roadmap to development sustainable for future generations? Its current performance in sustainable development is important, not only in assessing present living conditions and in determining how Vietnamese growth can be maintained in the future — but also in placing the policies and governance structures outlined in the next chapters in context.

As outlined in the World Bank's 2012 development report entitled "Well Begun but Not Yet Done: Progress and Emerging Challenges for Poverty Reduction in Vietnam," Vietnam still faces several challenges in relation to poverty and inequality in the nation (World Bank, 2012, p. 30):

*The task of eradicating poverty is not finished for two reasons:*

- *Standards have changed. By the end of the 2006–10 SEDP, Vietnam's system for measuring and monitoring poverty no longer adequately captured the living conditions of the population. The GSO-WB [General Statistics Office of Viet Nam and the World Bank] poverty lines were set in the mid-1990s and did not reflect the consumption patterns or broader aspirations of the population today.*
- *Many of the erstwhile poor remain vulnerable to slipping back into poverty. Weather shocks, health shocks, and income shocks are widespread and, in some areas, rising.*

Vietnam Academy of Social Sciences' 2011 report on "Poverty Reduction in Vietnam: Achievements and Challenges," also outlines challenges remaining in sustainable agriculture, as well as energy and climate change:

*The overwhelming majority of labourers in the [agricultural and non-agricultural informal] sectors are excluded from mandatory social security contributions and only few, if at all,*

*participate in the voluntary scheme. [...] Vietnam is arguably short of arable and productive land for agricultural production.*

*[...] Electricity supply has been falling even further behind the rapidly rising demand, resulting in higher frequency of power outage with increasingly negative impacts on production, business activities, and daily living.*

*[...] Finally, climate change, which is one of the central issues on the global agenda at present and has actually started to affect various disaster-prone regions in Vietnam, is bound to come up prominently in the immediate future. Vietnam should therefore proactively engage in this global agenda and seek to understand well the poverty and distributional impacts of climate change to be able to intervene appropriately and promptly.*

Viet Nam's development in the past few decades has also meant improvement in the access to sources of energy, as seen in the increasing percentage of the population that use electricity as a main source of lighting – from 48% in 1993 to 98% in 2010. The Land Law of 1993 – as part of the *Doi Moi* reforms – also brought with it land rights and a spike in agricultural growth, culminating in Viet Nam becoming one of the world's largest rice exporters by the end of the 2000s (World Bank, 2012).

Given the challenges that Viet Nam needs face, and the inter-related nature of issues to overcome in the three thematic areas, it will be important that the nation learns from its previous experience in implementing the Millennium Development Goals (MDGs). Both the strengths and weaknesses of Viet Nam's undertaking of the MDGs will need to be taken into consideration in order to effectively implement its future set of SDGs.

## 2: GOVERNANCE ARCHITECTURE AND SDG IMPLEMENTATION OPTIONS FOR POVERTY REDUCTION

This chapter looks at the initiatives that have been undertaken to tackle poverty and inequality at the national and local levels. It begins with an overview of the poverty initiatives that have been undertaken in Viet Nam since 2005 and of the challenges of poverty that remain today. This is followed by a study of the lead institutions and their roles in carrying out poverty reduction programs in each of these initiatives, as well as mechanisms of intra-organisational cooperation. This chapter also presents key policies, mechanisms for funding, and monitoring and reporting systems relating to poverty reduction. This is done to identify strengths and weaknesses in Viet Nam's past poverty initiatives that need to be addressed for future implementation of sustainable poverty reduction.

As a specific example of a solution to shortcomings of Viet Nam's past poverty reduction initiatives, this chapter proposes a multidimensional method of measuring poverty. This chapter argues that changing the measurement of poverty from a monetary index (i.e., income-based) to a multidimensional one is an important improvement in the poverty reduction process. Based on this concept, the chapter concludes with possible implementation mechanisms of poverty reduction initiatives that would ensure sustainable poverty reduction through the acknowledgement of multidimensional poverty.

### Relevance, Current Status and Trends

Viet Nam has embarked on the final stage of fulfilling the Millennium Development Goals (MDGs). Among the eight MGDs, Viet Nam has excelled in rapidly achieving MDG 1: *to eradicate extreme poverty and hunger*. This remarkable achievement of poverty reduction is thanks to policies on poverty and strong support from the government and development partners. Viet Nam's policymaking capabilities for poverty reduction have seen consistent improvement, and coverage from such policies has become ever broader. In fact, poverty reduction features strongly in many socio-economic programmes, projects or activities. However, it is worth noting that the nature of poverty has also been changing over time. Hence, it is crucial to adopt relevant policies that address current issues in poverty reduction in Viet Nam.

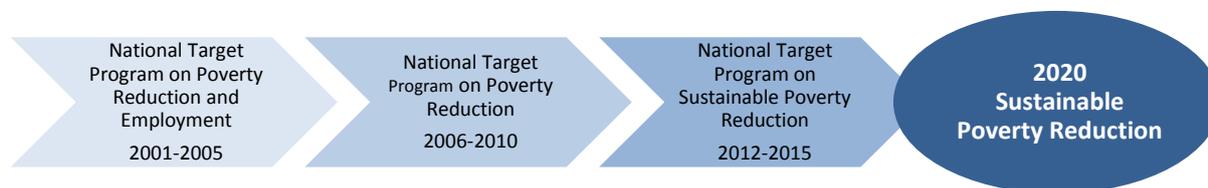
#### 1. Poverty initiatives in Viet Nam

Since 2005, Viet Nam has implemented numerous poverty reduction programmes. In fact, poverty-related documents issued by the state from 2005 to 2012 alone numbered around 70. They included more than 10 government decrees, 30 decisions of the Prime Minister and, most notably, two main government resolutions, including a Resolution dated 27 December 2008 on rapid and sustainable poverty reduction for 61 poor communes, and a Resolution dated 19 May 2011 on the direction of sustainable poverty reduction for the period of 2011–2020.

There are typically two types of poverty-related policies: general policies for the poor and poor households across countries, and specific policies for the poor and poor households in the poor districts, coastal areas and exceptional, difficulty-stricken communes.

This chapter will focus on Viet Nam's most recently completed poverty reduction initiative, the National Target Program on Poverty Reduction (NTPPR) 2006–2010. After concluding the programme in 2010, the government began including a sustainability factor within the national target programme on poverty reduction by issuing Decision 1489/QD-TTg, and establishing the National Target Program on Sustainable Poverty Reduction (NTP-SPR) 2012–2015, which is

currently on-going. Strengths and shortcomings of NTPPR 2006–2010 will be examined to provide policy guidance on governance and financing structures that would optimise the ability of NTP-SPR 2012–2015 to unlock sustainable poverty reduction by 2020.



**Figure 5: Viet Nam's key poverty-reduction policies since 2001**

In 2007, the government approved the aforementioned NTPPR 2006–2010. This programme can be considered as a successful example of poverty reduction activities in Viet Nam, with clear objectives, beneficiaries and sound governance mechanism.

The general objectives of the programme for this period were: “To speed up poverty alleviation and limit relapse into poverty; to consolidate the results of poverty alleviation efforts and create opportunities for households which have escaped from poverty to become well-off; to improve living and production conditions in poor and exceptional difficulty-stricken communes; to raise the quality of life of poor households and limit the widening of the gap in terms of income and living standards between urban and rural areas, delta and mountainous areas, and rich households and poor households” (The Prime Minister, 2007).

The implementation of NTPPR 2006–2010 resulted in many positive outcomes. Compared to the programme’s initial specified objectives, two out of three objectives exceeded expectation. The poverty rate in Viet Nam was reduced from 18.1% in 2006 to 9.45% in 2010, and 57.51% of exceptional, difficulty-stricken coastal and island communes escaped exceptional difficulties. Furthermore, policies on preferential credit loans have provided 6.2 million poor individuals with preferential credit loans. The initial target was only 6.0 million individuals. Vocational training for the poor provided a four-year exemption of vocational training fees for 150,000 people, of which 60% ultimately gained employment. The programme also granted 150,000 health care cards for the poor. Moreover, 180,000 cadres were engaged under the programme for capacity-building training on poverty reduction. The initial target was 170,000 cadres.

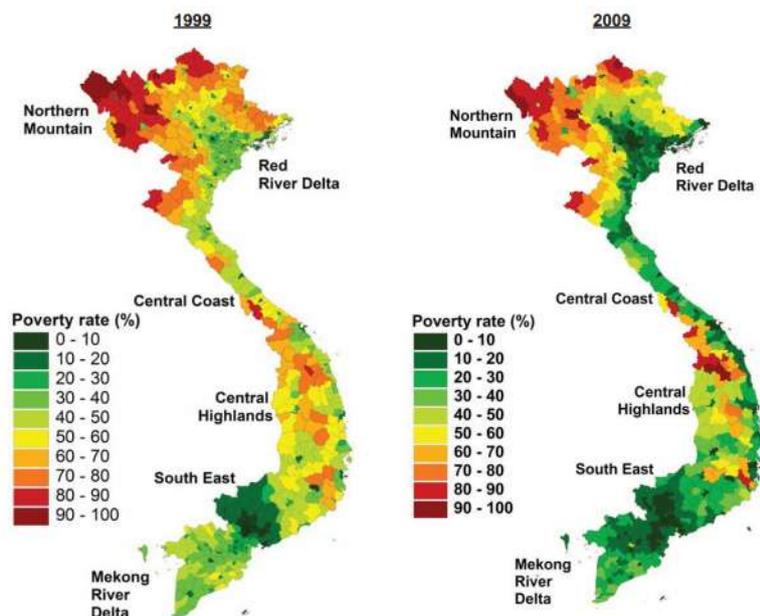
After NTPPR 2006–2010, Viet Nam is now implementing NTP-SPR 2012–2015. The new programme not only factors in sustainability but also indicates some basic changes in governance mechanism in order to enhance participation at the local level (The Prime Minister, 2012).

## 2. Remaining challenges

Although poverty reduction in Viet Nam has been remarkable, there are some challenges that may threaten its sustainability.

*Chronic poverty for the most vulnerable group.* The degree and speed of poverty reduction vary across geographic and demographic groups because of variation in participation in the social and economic development process. Furthermore, the poverty reduction rate has slowed over time.

The majority of remaining poor households are in rural and mountainous areas, which are mainly populated by the ethnic minorities (Figure 6).



**Figure 6: Poverty rates (%) in 1999 and 2009**  
(Source: World Bank, 2012)

Due to the fact that the poorest regions are populated mainly by ethnic minorities, one could argue that ethnic minority groups are among the most vulnerable groups in Viet Nam. Ethnic minorities account for 50% of the national total of poor households. The average income of ethnic minority households is one-sixth of the national average. The Central Highlands and the Northern Uplands have the highest poverty rates in the nation. Moreover, income inequality tends to increase across regions and localities over time (Table 2).

Years	2004	2006	2008	2010
National average	0.37	0.36	0.36	0.39
<i>By area</i>				
Urban	0.33	0.33	0.35	0.39
Rural	0.30	0.30	0.31	0.33
<i>By ethnicity</i>				
Kinh	0.35	0.34	0.34	0.37
Non-Kinh	0.31	0.30	0.31	0.33
<i>By region (8 regions)</i>				
Red River Delta	0.35	0.35	0.35	0.40
North East	0.34	0.34	0.34	0.36
North West	0.36	0.37	0.38	0.42
Central Coast	0.31	0.32	0.31	0.34
South Central Coast	0.34	0.32	0.32	0.34
Central Highlands	0.36	0.36	0.35	0.37
South East	0.35	0.35	0.36	0.40
Mekong River Delta	0.32	0.30	0.31	0.32

**Table 2: Income inequality in Viet Nam (Gini by expenditure<sup>2</sup>)**  
(Sources: GSO 2010, GSO 2008, GSO 2006, GSO 2004)

*Resilience of the near poor.* The proportion of the near poor remains significant, and this group could easily lapse into poverty if faced with natural or economic shocks. The proportion of households in 2010 lapsing into poverty in 2012 was 4.2%, accounting for 36.5% of total poor households in that year. Poor and low-income households are highly vulnerable to external and internal risks at community, household and individual levels. Natural disasters, extreme weather events and illness are among the highest threats to households' living standards. This is particularly true for households in disadvantaged areas, such as the Northern Uplands, the Northern Central and the Central Coastal Areas, where extreme weather events occur at an increasing frequency and households have limited access to social protection and financial support.

*Urban poverty.* People in rural areas tend to move to urban areas, where they often become the poorest and most vulnerable groups. Poor urban residents suffer from a shortage of social capital, lack of capacity to find alternative livelihoods and lack of access to public services and social protection. In addition, high costs of living and inflation in cities aggravate the economic performance of vulnerable groups.

*Higher education:* Viet Nam's Human Opportunity Index (HOI) for primary education is 95.07, indicating that Vietnamese children have close to universal access to primary education. However, the HOI for secondary education is lower, at 78.33, as the opportunity cost of sending children to school at this age is higher (Son, 2012). Opportunities for education are not equitable across age cohorts and household incomes.

## Lead Institutions and Their Roles

There have been some changes in the implementation mechanism of the NTPPR 2006–2010 compared to the NTP-SPR 2012–2015.

### 1. Period 2006–2010

A steering committee was set up in the government to take responsibility for implementing the NTPPR 2006–2010. Members of this committee were representatives of concerned ministries and branches. In the implementation process, a coordinating office in the Ministry of Labour, Invalids and Social Affairs (MOLISA) was the programme's standing body to assist the committee and coordinate collaboration concerned ministries and branches. Additionally, MOLISA played a monitoring role to inspect and supervise the implementation of the programme at all levels. Other concerned ministries were also authorised to take charge of issues relevant to their respective ministerial mandates.

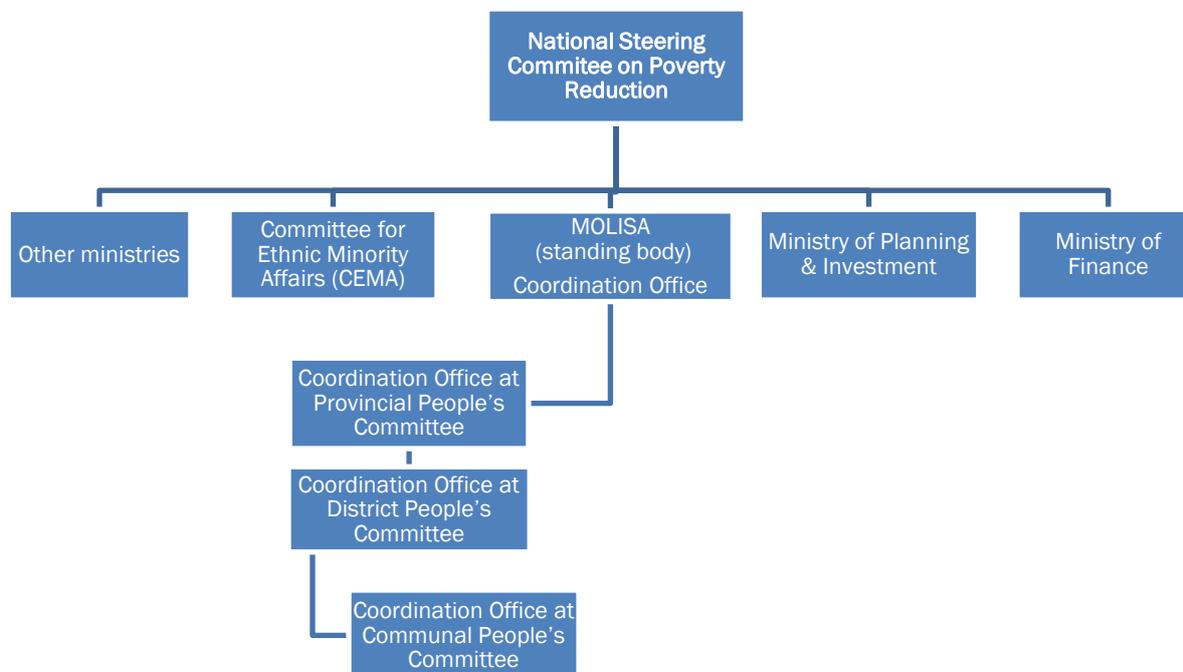
At the lower level, the responsibilities of localities were: to mobilise resources and organise the implementation of the programme under the direction and guidance of the government's Steering Committee and functional ministries and branches; to assign and decentralise the responsibilities for the implementation of the programme to branches and departments at each

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2. Gini by expenditure measures the extent to which the distribution of expenditure among individuals or households within an economy deviates from a perfectly equal distribution.

level on the principle of further decentralising powers and raising the sense of responsibility at the grassroots level; to direct the effective integration of the programme and projects implemented in localities; and to regularly inspect and supervise the implementation of the programme and make annual reports.

An organisational chart summarising the management mechanism of the NTPPR 2006–2010 is shown below:



**Figure 7: Management mechanism of the NTPPR 2006–2010**

## 2. Period 2012–2015

For the NTP-SPR 2012–2015, a management committee was established instead of a national steering committee as seen in the previous plan. The director of this new management committee is the Minister of MOLISA, and the vice director is the Minister of the Committee for Ethnic Minority. The National Office for Poverty Reduction was also set up to assist the Management Committee, to implement the programme. At the local level, there are the provincial Steering Committees for Sustainable Poverty Reduction to implement Resolution 80<sup>3</sup> and the programme in localities. Provincial DOLISA are standing bodies of provincial steering committees in localities.

In terms of implementing process, MOLISA is the leading and managing organisation (and no longer a standing body) to direct and collaborate with concerned ministries and branches, local People's Committees and municipalities to implement the programme. In addition, MOLISA will lead and collaborate with the Ministry of Planning and Investment, the Ministry of Finance and

3. See description of Resolution 80 in a later section.

other concerned ministries, to assess and approve integrated projects of the programme. At the local level, the provincial People’s Committee, apart from implementing the programme in localities, handles using resources effectively in accordance with the target.

## Key Policies and Financing Mechanisms

### 1. Period 2006–2010

There were many policies, projects or activities in the NTPPR 2006–2010 to: promote production and livelihood activities to increase the poor’s income; improve the poor’s access to infrastructure and social services; and build capacity and raise awareness on poverty reduction. More specifically, there were many specific projects in these three groups:

- Policies and/or projects relating to conditions that enable better living standards for the poor, such as preferential credit; production land support for the ethnic minority poor; agriculture-forestry-fishery extension and production consuming support; building important infrastructure in extremely poor areas; and job training.
- Policies relating to opportunities for the poor in accessing to social services such as support for healthcare, education, drinking water, or legal support.
- Other projects relating to capacity building and awareness-raising.

Regarding the financing mechanism, the total amount for NTPPR 2006–2010 was about VND43,488 billion. More specifically, direct funding amounted to about VND3,456 billion and indirect funding (e.g., reduced tax burdens) came up to about VND40,032 billion. Proportionally, 59.79% of the funding came from lines of credit, 28.68% from the central budget; 5.66% from community contributions; 5.2% from local budgets; and 0.68% from foreign contributions.

### 2. Period 2012–2015

The NTP-SPR 2012–2015 has four sub-projects with specific financing mechanisms, as outlined in the table below:

Sub-Project	Total Funding	Source of Funding	% breakdown
<b>Infrastructure investment for the poor districts and extreme poor coastal communes</b>	VND11,080 billion	Central budget: VND8,180 billion	74%
		Local budgets: VND2,000 billion	18%
		Other sources: VND900 billion	8%
<b>Infrastructure investment for poor communes in boundary areas and safety zone areas</b>	VND12,392 billion	Central budget: VND9,792 billion	79%
		Local budgets: VND1,700 billion	14%
		Other sources: VND900 billion	7%
<b>Duplicating successful poverty reduction models to other poor areas</b>	VND2,850 billion	Central budget: VND2,000 billion	70%
		Local budgets: VND250 billion	9%
		Other sources: VND600 billion	21%
<b>Improving capability of poverty-related staff</b>	VND1,187 billion	Central budget: VND537 billion	45%
		Local budgets: VND50 billion	4%
		Other sources: VND600 billion	51%
<b>TOTAL FUNDING</b>	VND27,509 billion	Central Budget: VND20,509	75%
		Local budgets: VND4,000	15%
		Other sources: VND3,000	10%

Table 3: Funding and its sources for four sub-projects under the NTP-SPR 2012–2015

In general, the NTP-SPR 2012–2015 introduces different governance mechanisms to create more participation among citizens. For instance, there are steering committees in localities to ensure appropriate implementation of the programme. Furthermore, a clearer mechanism to decentralise and allow citizens to participate has been established.

However, poverty reduction is considered as a “national duty” rather than a part of the development. Therefore, poverty reduction is often labelled as “someone else’s responsibility” among government officials, and there is a lack of motivation to facilitate the process.

### Monitoring and Reporting Mechanisms

In general, a mechanism for monitoring and reporting would start at the local level and then reported to agencies at the central level. However, there are slight differences in terms of monitoring and reporting between the two periods (2006–2010 and 2012–2015).

In the period 2006–2010, the People’s Committees handled monitoring the implementation of the NTPPR 2006–2010 at local levels. At the highest level, the Committee on Social Issues in the National Assembly handled assessing reports from the local level and making a final report to members of the National Assembly. This report included results and shortcomings in implementing NTPPR 2006–2010 as well as suggestions for policy implementation to the National Assembly, the government and concerned ministries.

For NTP-SPR 2012–2015, agencies working with the DOLISA at the local level report on implementation and local steering committees monitor implementation at local level. These reports are sent to the National Office on Poverty Reduction at the central level before the Program Management makes a final report to members of National Assembly.

From 2005 to the present, Viet Nam has seen significant achievements in poverty alleviation, mainly due to economic growth and consistency in policy. However, there are some shortcomings relating to policy implementation of the NTPPR 2006–2010 that also apply to the NTP-SPR 2012–2015:

- Policies were top-down and lacked participation from the community.
- Policies on poverty reduction overlapped. Numerous policies were proposed and implemented by many ministries and branches without an appropriate coordination mechanism.
- Applying one norm to support all types of poor households – regardless to regional differences – was inappropriate.
- Some policies only gave money to the poor, which could hamper creativity and autonomy of localities in dealing with poverty. Also, the majority of poverty policies integrated vocational training parts, and one citizen could benefit from many policies. That led to difficulty in control and monitoring.

## Selected SDG Sub-Goal and Its Relevance for Viet Nam

Out of the 41 sub-goal statements published in the first part of the ENVforum research series, *Sustainable Development Goals and Indicators for a Small Planet, Part I: Methodology and Goal Framework*, sub-goal 1.1 “Intra-and intergenerational social equity for all groups (e.g., women, youth, elderly, indigenous, minorities) is improved” (see earlier Table 1) is relevant to the direction of inclusive growth of Viet Nam. In other words, poverty reduction should be a consequence of economic growth, and prosperity of growth should be shared among citizens, not just among specific groups.

Sub-goal 1.1 specifically relates to the National Strategy for Sustainable Development of Vietnam in the period 2011–2020. One of the prioritised developmental directions is to facilitate poverty reduction towards sustainability by creating sustainable employment, implementing social justice and progress, and implementing social security policies. The National Strategy also aims at sustainable regional and local development to create more access to development resources, better social services, and social welfare.

Sub-goal 1.1 also connects various poverty-related initiatives in Viet Nam, such as the National Strategy on gender equality, which states that gender equality must be ensured by 2020; the National Strategy on Education Development, which aims to ensure educational equality for every individual in society; as well as the National Strategy on Health Protection, which targets equal access to quality healthcare, with particular focus on the extreme poor, ethnic minorities, children under six years old, and individuals at isolated, mountainous or remote areas.

In general, poverty reduction is a priority for Viet Nam and consequently, ensuring social equality is essential in its next development stage. One of the best ways to do so is to reduce all aspects of poverty. Poverty can no longer be defined as simply monetary poverty (i.e., based on income), but multidimensional poverty. Viet Nam has gained significant achievements in monetary poverty reduction. However, this has been met with a gradual increase in inequality, as seen in the access to education and healthcare. It is necessary to re-define poverty based on the inclusion of a broader spectrum of determinants of living standards, beyond simply household income. In short, the sub-goal of “intra-and intergenerational social equity for all groups is improved” would be best reached by incorporating a multidimensional definition of poverty.

## Addressing Multidimensional Poverty

In 2011, the government approved a Resolution on a direction for sustainable poverty reduction in the period of 2011–2020. The Resolution clearly states that the following points need to be met by 2020 (ILO, n.d.):

*a. The average income per capita of poor households will increase 3.5 times; the number of poor households will drop by 2% per year, and by 4% in poor districts and communes;*

*b. The poor’s living conditions will markedly improve, first of all in health, education, culture, water and housing; the poor will have more and more convenient access to basic social services;*

*c. Socio-economic infrastructure facilities in poor districts and communes and extremely disadvantaged villages and hamlets will receive concentrated and synchronous investment according to new countryside standards, first of all essential infrastructure such as transport, electricity and daily-life water supply.*

There are many problems that Viet Nam must overcome to reach the targets in 2020, such as *inequality and chronic poverty* for the most vulnerable groups at remote and mountainous areas; *urban poverty; child poverty* or an *increase in income inequality*. The key to alleviate poverty sustainably is to identify clearly the nature of poverty. Indeed, this can be said to have changed over time. In the past, poverty meant lack of food to secure minimum nutrition. Later, poverty meant lack of income to meet minimum living standards. At the moment, Viet Nam uses a monetary poverty line as a basis and has adjusted its poverty line in accordance with each development stage.

It is essential to move from income poverty to a multidimensional poverty line. There is a need to categorise types of poverty, such as the permanent poor and the transitional poor. The former are those who have no capacity or opportunity to escape from poverty; the latter are those who lack certain skills or necessary information to escape from poverty.

Such a multidimensional definition of poverty in turn requires flexible, multidimensional policies. Minister of MOLISA Pham Hai Chuyen has indicated that switching from the lens of monetary poverty to multidimensional poverty must be emergent. This will help the government design more specific and efficient policies for sustainable poverty reduction. With a multidimensional poverty index, specific supporting policies should be set up for particular poor groups when it then become easier to assess the impact of these policies. In the past, without identifying groups of the poor, one policy was applied for all beneficiaries across the country, regardless of their specific characteristics or circumstances. On the one hand, such a one-dimensional method led to insufficiencies in policy implementation; on the other hand, the poor were not motivated to escape from poverty because the state would give them enough food and money to survive. Consequently, many households competed with others to be “poor” to receive grants from the government.

Hence, it is vital to identify the multidimensional poverty standard for Viet Nam. This could lead to three basic changes: (i) measurement of multidimensional poverty; (ii) identification of objectives; and (iii) identification of beneficiaries.

#### 1. Measurement of multidimensional poverty

Building a multidimensional poverty standard requires the collaboration of MOLISA and concerned ministries and branches – such as the Ministry of Education and Training (MOET), Ministry of Health (MOH); Ministry of Construction (MOC); Ministry of Agriculture and Rural Development (MARD); Ministry of Transport (MOT); Ministry of Information and Communication (MIC); Department of Employment; Department of Social Protection; and the General Statistics Office (GSO). These dimensions must be based on basic living needs that were clarified in Constitution 2013<sup>4</sup>, Resolution 15 NQ/TW<sup>5</sup> and Resolution 76/2014/QH13<sup>6</sup>, and other existing

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4. Relevant rights include the right to legal residence (Article 22), gender equality (Article 26), property and enterprise (Article 32-33), social security (Article 34), employment (Article 35), and clean environment (Article 43).

laws such as laws on labour, employment and MDGs commitment, the Convention on the Rights of the Child (CRC), and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW).

Consequently, the multidimensional poverty standard would be a non-income index including five dimensions: healthcare; education; social insurance and security; living standards; and access to information. Indicators of each dimension could be identified after reviewing important legal documents of Viet Nam (see Annex 1) and indicators within each dimension could also be weighted as follows:

Dimension	Indicators	Deprivation threshold	Relative weight
Education	Highest educational attainment of household members (aged 15–30)	At least one household member (aged 15–30) who does not attend school or does not have a high school diploma	10
	School attendance of household members (aged 5–15)	Any school-aged child (aged 5–15) that does not attend school	10
Healthcare	Access to healthcare service	Any sick household member who does not receive medical treatment	10
	Health insurance	At least one household member who does not hold a health insurance card	10
Living standard	Shelter	Whether the household resides in 1. Semi-permanent or temporary housing; or 2. Housing per capita below 8m <sup>2</sup>	8
	Clean water	The household's access to safe drinking water	6
	Sanitation	Whether the household has sanitation facility	6
Social Insurance and Security	Social insurance	At least one working household member who does not have social insurance	10
	Social security	At least one household member who is a beneficiary of social protection	10
Access to information	Access to telecommunication service	Whether any household member uses a mobile phone or accesses the Internet	10
	Assets to access telecommunication service	Whether the household has any of following items: TV, radio, computer, etc.	10

**Table 4: Determinants of the multidimensional poverty standard**

5. This resolution includes accelerating the implementation of the Government's resolution and the National Target Program on Hunger Eradication and Poverty Reduction, focusing on poverty reduction policies for poor districts; prioritising the poor of ethnic minority groups in poor districts, border communes, safety zone communes, especially disadvantaged communes, villages and hamlets, and coastal and island areas; narrowing the gaps in living standards and social welfares against the average level of the country; considering amendments and supplements to supportive policies for near-poor households to reduce poverty sustainably; striving to raise the per capita income of poor households to 3.5 folds higher than the figure of 2010 by 2020, reducing the poverty rate by 1.5% to 2% per year, and in districts and communes with high poverty rates, by 4% per year according to periodic poverty criteria.

6. This resolution emphasises the transition from one-dimensional poverty to multidimensional poverty.

The total score for deprivation, calculated by adding up the relative weights assigned to the relevant indicator(s), will indicate whether the household faces multidimensional poverty, as outlined in the table below:

Categorisation	Deprivation Score, “x.”
“Severely multidimensionally poor.”	$x > 50$
“Multidimensionally poor”	$30 < x < 50$
“Near multidimensionally poor.”	$20 < x < 30$

**Table 5: Calculation of the deprivation score**

Note that, based on these dimensions and indicators, statistics agencies at all levels could be mandated to measure and make periodic and independent reports on multidimensional poverty.

Changing the measurement of poverty from a monetary index to a multidimensional one will be an important improvement in poverty reduction process. The monetary poor are not necessarily multidimensional poor, and vice versa. Sometimes, people have enough money but live in remote and mountainous areas, so that they are unlikely to have access to adequate social services such as education or healthcare. A multidimensional poverty measurement could re-define the poor and poor households. In the future, multidimensional poverty (or a non-income index) and income poverty could be applied simultaneously to measure poverty – leading to a comprehensive change in the poverty reduction process in Viet Nam.

## 2. Beneficiary Identification

In the past, objectives often were the poor, poor households or poor communes that had an income below some prescribed level. However, in the future, poverty should be a combination of multidimensional and income criteria. MOLISA must issue guidance on poverty identification and monitor this process, with localities identifying poor households based on the two categories. In addition, provinces or cities must be allowed their poverty standard depending on particular local characteristics. This list could be reviewed and updated every two years.

## 3. Needs Identification

Beneficiaries at the central or local levels would depend on the state budget and content of policies. Not all poor households in the “income-poor” list should be beneficiaries of poverty reduction activities. Moreover, the type of policy support that beneficiaries receive from the government should depend on which dimension is lacking. More specifically, priorities and policies in different regions could vary as long as the lists of poor households are reliable. In addition, these policies should be conditional, to avoid dependency of the poor.

## Possible Implementation Mechanisms

Viet Nam could reduce social inequality and progress in poverty reduction by implementing policies based on the multidimensional poverty standard. Keeping in mind the changing nature of poverty, some implementation policy options are suggested below.

First, classification of policy objectives and beneficiaries must be based on two categories: monetary and multidimensional poverty indicators. While addressing monetary poverty will require direct supporting policies, to address multidimensional poverty, indirect supporting policies need to be implemented.

Direct policies are still important, but their implementations should be decentralised to the local level. In addition, preferential policies could be implemented that favour certain social groups. Moreover, government officials should take the effort to listen to individual voices and feedback. Grassroots democratisation should be broadened in every stage of the policymaking process.

That said, it is better to move gradually from direct policies to indirect policies based on deprivation as captured in the multidimensional poverty index. There were many activities to give the poor or poor households money or food, to keep them alive at minimum living standard. In the future, it is illustrated that multidimensional poverty standard will point out the particular dimension in which each region is lagging. The government should invest in these dimensions to indirectly help the poor to escape from poverty. For example, when a commune is identified as multidimensionally poor in terms of education and healthcare, the government should invest to improve education and healthcare infrastructure or quality, instead of giving money to the poor and letting them manage their access to education or healthcare services. It is recommended that indirect policies should focus on capability improvement for the poor by trainings towards *decent jobs for the poor*.

Second, periodic figures on multidimensional poverty must be published by only one agency: the General Statistics Office. After categorising the poor, the policies must be more specific and clear, with sound budget allocation and varying levels of support. Policies on poverty reduction should have less overlap, by targeting specific groups of the poor. The tentative groups could be *severe multidimensional poor, dimensional poor and near multidimensional poor*. However, identification of targeting groups could be more flexible if combined with income poverty. For example, policies could focus on the multidimensional poor but not the income-poor, or focus on those who are simultaneously multidimensional poor and income-poor.

Third, with multidimensional poverty, the local authorities will realise what types of poverty exist in different localities. With this, the authorities must raise awareness of the poor about their real situation and how to escape from poverty. If the poor do not realise why they are poor, they will not have the motivation to escape from poverty, and social inequality is unlikely to be reduced. Local authorities need to give them the motivations to escape from multidimensional poverty by implementing policy incentives. In such cases, it is often ideal to award them with means of living, rather than money.

Fourth, it is necessary to integrate multidimensional poverty into the monitoring process of poverty reduction and in the assessment of impacts of programmes at national and local level. A poverty monitoring system is recommended, established at the local level based on the multidimensional poverty index, with the participation of representatives among the poor. There should be representatives of specific poor groups such as the “education poor” or “infrastructure poor”, etc. Their opinions on the effectiveness of supporting policies should be collected and sent to the Steering Committee at the local level, or sent directly to the Management Committee at the central level. This feedback needs to be made public.

Fifth, a multidimensional poverty standard will enable policymakers to integrate poverty reduction programmes into other development strategies. For example, after identifying that a region or a province is deprived of a particular poverty dimension, such as education, policymakers can better focus on an education development strategy for the region or province. A budget should certainly be allocated to this aspect, and education agencies at the local level should handle collaboration with local Steering Committee. In this way, the number of poverty-related

programmes could be reduced by streamlining resources to poverty dimensions that need the most support.

### 3: GOVERNANCE ARCHITECTURE AND SDG IMPLEMENTATION OPTIONS FOR AGRICULTURE

This chapter will explore Viet Nam’s efforts in sustainable agricultural production and improving agricultural productivity. Following a current state analysis of the state of food security, as well as the environmental sustainability and productivity of the agricultural sector, this chapter outlines the lead institutions involved in ensuring national food security and sustainable development in the agricultural sector. This is followed by key policy instruments, financing mechanisms, and indicators for monitoring that have been enacted for sustainable agricultural development and national food security.

This chapter takes a detailed look at Viet Nam Good Agriculture Practices (VietGAP) that governs the use of pesticides and fertilisers as a solution to balance the twin need for increased productivity and environmental sustainability of agricultural production. It then uses rice production as a specific case study of what Viet Nam has done and should do to increase the productivity and environmental sustainability of production. Based on these findings, the chapter concludes with an overview of possible implementation mechanisms with regard to rice production, which accounts for a large proportion of Viet Nam’s agricultural output, as well as a proposal for a new, more sustainability-oriented food security monitoring system.

#### Relevance, Current Status and Trends

Although Viet Nam has placed considerable effort on fostering a robust process of industrialisation, agriculture remains an important component of the economy. Three areas where Viet Nam is showing significant improvement are food security, land management and sustainable methods of farming.

In the 25 years since the *Doi Moi* reforms, Viet Nam has moved from a situation of national food deficit – with a relatively widespread incidence of hunger – to a situation of a very large food surplus with only modest pockets of hunger (World Bank, 2012; FAO, 2014; UNDP 2012).

Food security and nutrition status core indicators		
Food consumption	Health status	Nutritional status
Calorie supply per capita (2012) <b>2,850* kcal/person/day</b>	Life expectancy at birth (2012) <b>75.4 years</b>	Proportion of children under-5 who are underweight (2008): <b>20%</b>
Cereals, roots, tubers as % of DES** (2007-2009) <b>62%</b>	Under-5 mortality rate (2011) <b>21.7/1000</b>	Percentage of adults with body mass index BMI*** < 18.5 (2010): <b>26.5%</b>
Percentage of population undernourished (2012) <b>9.01%</b>	(*) Minimum dietary energy requirement: 1,810 kcal/person/day (**) Dietary Energy Supply (***) Body Mass Index	

**Figure 8: The state of food security in Viet Nam**  
Sources: World Bank (2012); FAO (2014); UNDP (2012)

However, many households face the challenge of high food prices, with an average of 35% of household expenditures spent on food in 2013 (USDA, 2014), compared to the average of 22.8% in other studied countries in the Asia-Pacific. On the other hand, enabling access to adequate nutrition has improved over time, with a reduction in the prevalence of undernourishment from 21.4% in 2004 to 12.9% in 2014 (FAO, 2014).

Viet Nam's agricultural growth has been primarily based on the extensive use of natural resources and, in some cases, intensive use of fertilisers, chemicals and growth promoters. Some of this growth has come at the expense of the environment, resulting in the depletion of natural resources or increased levels of pollution. Examples include water and soil pollution in the lowlands, in coastal mangrove systems, and in groundwater sources in the Central Highlands, with depletion of near-shore fisheries and threats to plant and animal biodiversity as well as soil erosion in upland areas. Misuse of agricultural inputs, limitations in water resources management, and limited utilisation of agricultural waste products have all contributed to localised pollution as well as greenhouse gas (GHG) emissions. Rural industries also have an uneven record concerning environmental management, with growing concerns about their contribution to groundwater and surface pollution. These developments not only have adverse impacts on human health but, in some cases, threaten to reduce Viet Nam's international market access for certain products due to consumer and regulatory environmental concerns.

In terms of land management, Viet Nam has experienced significant improvement in agricultural yields over the past few decades through land reform. However, there is still work to be done, with rigidity in policies such as the short tenure period (20 years) for the production of annual crops. Household land-use ceilings of 2–3 hectares also impede further improvements in agricultural productivity (World Bank, 2011). Unclear property rights pose a challenge to fisheries, which are commonly owned, with limited incentives for eco-efficient management to prevent overfishing. However, stakeholders in the fisheries sector have responded through co-management schemes, successfully implemented especially in the Thua Thien-Hue province (World Bank, 2011).

Environmental sustainability in food production could also prove to be a significant challenge in the future. With increased demand for land in agriculture, there has been extensive deforestation, notably in the Dak Lak Province, where land degradation has contributed to the deterioration of water quality, as well as in destruction of wildlife habitats (World Bank, 2011).

### **Lead Institutions and Their Roles**

To achieve sustainable development, the Minister heading the Ministry of Agriculture and Rural Development (MARD) has requested line-departments or administrations to develop their restructuring strategies and action plans, of which sustainable development is a required objective. As a result, MARD had issued a restructuring plan for all sub-sectors (i.e., crop production, forestry, aquaculture, livestock production, irrigation and agro-processing) in the third quarter of 2014. Those sub-sectors' restructuring plan paid strong attention to incorporating sustainable development issues in their goals and detailed actions to achieve the goals in the period of 2015–2020.

The action plans provide important information for MARD to allocate budgets during the period. The Department of Finance will monitor and evaluate the budget utilisation while the Department of Science, Technology and Environment will handle evaluating the quality of studies or research.

Finally, the Department of Planning, with reports from by all line-departments, will monitor and evaluate the output and outcome of the activities given in the action plan.

To achieve the national food security target, the Prime Minister assigned MARD with the coordination of the Ministry of Natural Resources and Environment (MONRE) and provincial-level People's Committees, in directing the formulation of detailed planning on rice land.

In accordance with his Decision made in 2013, the Minister of MARD approved an action plan "to restructure agriculture sector, increasing added value and sustainable development," in which all sub-units within MARD have been assigned different tasks. The institutions have to monitor and report annually on their assigned tasks to the standing office of the Steering Committee of Sustainable Development at MARD. Besides the annual report, these institutions will have to prepare other reports to the Minister and Steering Committee of Sustainable Development, such as regular monthly meeting reports as well as programme and project schedule reports. The Steering Committee of Sustainable Development will synthesise these reports for the Minister of MARD and the government.

At the local level, the People's Committees at provincial and district levels are tasked to direct, supervise and enforce the implementation plan for sustainable development of the country; and to annually report the their outcomes to the Department of Planning and Investment. The Department in turn has to monitor, inspect and summarise the implementation of the Action Plan, reporting the results of the implementation to the Provincial People's Committee and the National Council.

## **Key Policies and Financing Mechanisms**

### **Key Policies**

Key targets for agricultural policymaking are to (1) ensure sustainable agricultural development and (2) promote national food security.

#### **1. Policy instruments for sustainable agricultural development**

- A. Sustainable Development Strategy for 2011–2020, which stipulates:
  - i. Agricultural development must go hand in hand with rural development;
  - ii. Agricultural and rural development should pursue the goal of improving the livelihood of agricultural workers and the rural population;
  - iii. Agricultural and rural development is associated with urbanisation and industrialisation – rural areas must regain an important position in modern society.
- B. Socio-Economic Development Strategy for 2011–2020, which highlights targets such as:
  - iv. The rate of labour working in agriculture to account for about 30–35% of society's labour force;
  - v. The contribution of the agriculture, forestry and aquaculture sectors to account for about 15% of GDP; and
  - vi. Communes that meet new rural standards to reach about 50%.
- C. Master Plan of Production Development of Agriculture to 2020 and a vision towards 2030
  - vii. To develop a comprehensive agricultural development towards a modern, efficient, sustainable agriculture with large-scale commodity production
  - viii. To develop a new rural with prosperous economy, civilised culture, clean environment; infrastructure and services associated with the rural and urban area
  - ix. To narrow the income gap between rural and urban areas

The agriculture sector, however, still faces growing domestic competition for natural resources utilisation (e.g., from the urbanisation and industrialisation process). Rising costs of resources in turn affect the international competitiveness of Viet Nam's agriculture products, which focus on low costs. To address this issue, Viet Nam needs to change its development strategy by moving away from low costs and improving quality, standards compliance and reliability.

In order to do so, the MARD proposed the Restructuring Plan of the agriculture sector, approved by the Prime Minister in 2013 as the Agricultural Restructuring Plan (ARP). Its six core principles are the following:

- Agriculture and rural development will follow the conceptual framework of sustainable development.
- Viet Nam's agriculture will develop by "market-driven" orientation through rural development will continue to be socially guided.
- The government's roles will gradually shift from the primary provider to the facilitator of investments and services undertaken by the private sector.
- The government will broadly apply the concept of partnership and co-management with both the private sector and community organisations.
- All actors of society, at central and local levels, will have the right to participate in the restructuring process.

"Green economy" and "green agriculture" are the foci of a new policy towards sustainable development in Viet Nam. The National Action Plan on Green Growth for the period of 2014–2020 was approved by the Prime Minister (Prime Minister decision No.1393/QD-TTG). Amongst other ministries, MARD has been assigned an important role by taking the lead and coordinating related agencies in implementing key activities outlined in the National Plan for Green Growth (see Box 1 for details).

**Box 1: Eight Activities led by MARD in the National Action Plan on Green Growth (2014–2020)**

1. Apply the techniques of organic farming and improve management to reduce greenhouse gas emissions;
2. Re-use and recycle by-products and agricultural waste;
3. Research and application of nutrient-rich foods in the livestock industry to increase productivity, reduce emissions, increase product quality and economic efficiency;
4. Technological innovation in fisheries and aquaculture;
5. Improve energy efficiency and reduce pollution from craft villages and other rural non-farm activities;
6. Review and re-plan the development plans of agriculture, forestry and fisheries to meet the perspective of sustainable development; to build a green growth policy framework and action plan for the sector;
7. Efficiently use water resources; and
8. Improve and develop irrigation system in a sustainable way.

## 2. Policy instruments for national food security

In 2012, the Prime Minister set ensuring food security as one of the key objectives of sustainable agricultural development. By setting aside 3.8 million hectares of rice land for protection, the policy ensures the adequate supply of and access to food and nutritional requirements (The Prime Minister of Government, 2012a).

In the same year, a Decree was issued on rice land use and management, stating that “land for rice cultivation must be strictly protected in the planning period and land use plans may only be adjusted for reasons concerning national defence, security, national interests, public interests and to be examined by governmental agencies” (The Government, 2012). The Decree increased the incentive of farmers in rice production with an annual government subsidy for organisations, households, and individuals that grow rice of VND500,000 per hectare of wet-rice farming land, and VND100,000 per hectare for other types of rice, excluding terraced rice fields.<sup>7</sup>

Since 2010, the Ministry of Finance (MOF), MARD and provincial People’s Committees determine production costs and the price of rice each season to ensure 30% profit for farmers in the provinces (Prime Minister, 2010). When market prices of rice fall below the given price, enterprises can use a government rice price stabilisation fund to purchase rice at given price for temporary storage, thus boosting the rice price in the market (Food and Fertilizer Technology Center, 2014). The government also subsidises 100% of loan interests, to purchase rice for temporary storage for three months.

The current direct food support policy is given in Resolution No. 30a from 2008, which regulates that poor households involved in afforestation and forest protection will receive 15kg of rice per capita per month during periods where they are unable to secure staple food (The Government, 2008b). In addition, poor households that settle down in the national border areas will be granted 15 kg of rice per person per month until they can be self-sufficient in food. The government also supports provinces experiencing difficulties with food, during the time close to the harvest seasons as well as for provinces suffering from natural disasters.

### *Financing Mechanisms*

Funding for sustainable development in Viet Nam is mainly focused on environmental protection. State budget expenditures targeting environmental protection are set at 1% of the total government budget expenditures, which was about VND6 trillion in 2010, thrice that of 2004.

Funding from Official Development Assistance (ODA) from 2000–2009 was about USD3.2 billion (Government of Vietnam, 2012). Financing is also largely done through programmes or projects, such as the “Vietnam Clean Production and Energy Efficiency Project” managed by Ministry of Industry and Trade. The project supports enterprises and small businesses to conduct clean production through vocational training, enterprise management enhancement, and assistance in creating investment plans, amongst other forms of financial and technical support. Sectors that can receive this support are industries in agro-forestry and fishery processing; industrial goods; and chemicals for rural and agriculture sectors.

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7. By the Decree No.42/2012/ND-CP, the government will subsidise 70% of fertiliser and pesticide costs, when over 70% of rice crops are lost; or 50% when rice farmers suffer damage to 30–70% of their crops. The government will also pay 70% of expenses for reclamation of land for wet rice cultivation. In reclaimed areas, rice farmers will receive rice seeds free of charge and enjoy 70% of seed costs subsidised for the first season.

In 2009, the Prime Minister approved a development programme for agricultural crops, forestry, livestock breeding and fisheries by 2020 (Decision No.2194/QĐ-TTg), which includes the extension of credit through state-owned commercial banks (Decision No.2194/QĐ-TTg).

In 2012, MARD approved the strategy for the development of science and technology in agriculture and rural development for the period 2013–2020. The strategy sets targets for science and technology achievements to contribute 40% to the agriculture added value in 2015 and 50% in 2020 (Tran, 2014). Between 2008 and 2013, the total budget for research and technology transfer were VND3,930.40 billion, which resulted in 162 advanced cultivation technologies, and more than 4,380 scientific research projects and pilot productions. This included the establishment of hi-tech agriculture parks in areas such as the Cu Chi District, Can Gio District, and Binh Chanh District. The objective is for these parks to apply new technologies and introduce new plant species, and ultimately to transfer such technologies to farmers or agriculture enterprises. The Cu Chi Park has been especially successful, with the revenue earned by 14 enterprises operating in the park totalling VND980 billion in 2013, and a 20% increase in production yield of farmers through the use of vegetable seeds developed in the park (VNS, 2014).

The government has also issued policies to encourage investment by enterprises in the agricultural and rural sector. The Prime Minister's Decree No. 210/2013/NĐ-CP, dated 19 December 2013, supports 70% of the budget for research to create new technologies; 30% of the budget to implement pilot production applying new technology. Compared with previous policy, this latest Decree provides more investment assistance from the state for processing and technology.

At the national level, the enforcement authorities for this Decree are the Ministry of Planning and Investment, Ministry of Finance and Ministry of Agriculture and Rural Development. At the local level, provincial People's Committees balance the budget, enact specific policies to encourage investment in priority areas, approve prioritised projects, and grant subsidies in the prescribed areas. Interestingly, policies encouraging investment in this Decree are given based on enterprise size (micro, small or medium) and capacity.

International organisations also contributed to develop sustainable technologies in the agriculture sector. One such successful project is the "Biogas Program for the Animal Husbandry Sector of Vietnam", that was implemented by the Livestock Production Department in cooperation with Netherlands Development Organisation (SNV). The project effectively developed biogas technology in Viet Nam, which provided farmers with job creation and newer and cheaper energy sources. It also helped reduce environment impact through waste management, GHG reduction and clean energy utilisation. By the end of 2012, the project supported the construction of over 125,000 biogas plants, provided training for 953 provincial and district technicians, supported 1,505 biogas mason teams, and organised 140,000 promotion workshops and training for biogas users (SNV, n.d.). In terms of environmental impact, the program was able to reduce more than 150,000 tons of CO<sub>2</sub> from 2010 to 2011, and averaged an annual reduction of 350,000 tons of CO<sub>2</sub> emissions since its inception (Biogas Project, n.d.).

### **Monitoring and Reporting Mechanisms**

In MARD, the monitoring system is as follows:

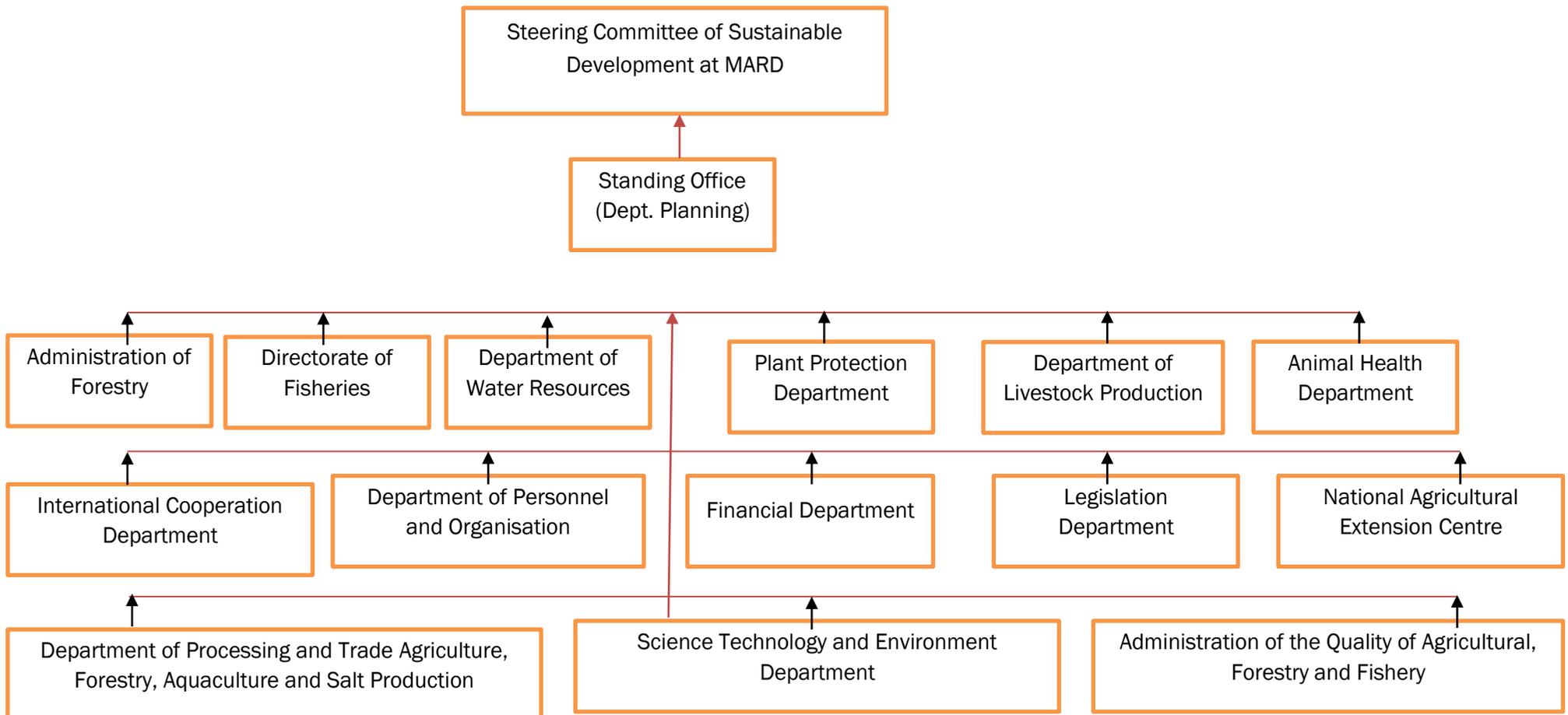


Figure 9: Monitoring and reporting system in MARD

The Prime Minister approved the following indicators for sustainable development. Ministries, including MARD, will develop policies and programmes to achieve indicators that relevant to the mandate of each ministry.

<b>General targets</b> <ul style="list-style-type: none"> <li>• Green GDP</li> <li>• Human Development Index (HDI)</li> <li>• Environmental Sustainability Index (ESI)</li> </ul>	<b>Social targets</b> <ul style="list-style-type: none"> <li>• Poverty rate</li> <li>• Unemployment rate</li> <li>• Rate of trained labour of the economy</li> <li>• Gini coefficient</li> <li>• Sex ratio at birth</li> <li>• Number of students per 10,000 people</li> <li>• Number of Internet subscribers per 100 people</li> <li>• Ratio of people participating in social insurance, health insurance, and unemployment insurance</li> <li>• Number of deaths due to traffic accidents per 100,000 people</li> <li>• Rate of communes recognized to meet norms of new rural areas</li> </ul>
<b>Economic targets</b> <ul style="list-style-type: none"> <li>• Incremental Capital Output Ratio (ICOR)</li> <li>• Labour productivity</li> <li>• Contribution ratio of Total Factor Productivity</li> <li>• Energy consumption reduction ratio per unit of GDP</li> <li>• Ratio of recycled energy in the energy consumption structure</li> <li>• Consumer Price Index (CPI)</li> <li>• Current account</li> <li>• Budget overspending</li> <li>• Government's debt</li> <li>• Foreign debt</li> </ul>	<b>Targets of natural resources and environment</b> <ul style="list-style-type: none"> <li>• Forest coverage</li> <li>• Rate of protected land, maintenance of biodiversity</li> <li>• Area of degraded land</li> <li>• Reduction rate of underground and surface water</li> <li>• Rate of days with high concentration of toxic substances in the air exceeding the permitted standard</li> <li>• Rate of urban areas, industrial parks, processing zones and industrial clusters having solid waste treatment and waste water meeting environmental standards or relevant technical standards</li> <li>• Rate of solid wastes collected treated up to environmental standards or relevant technical standards</li> </ul>

**Table 6: MARD's indicators for sustainable development**

### Selected SDG Sub-Goal and Its Relevance for Viet Nam

Small Planet Goal 7, “sustainable agriculture, food security and universal nutrition are achieved” is relevant to Viet Nam’s experience in implementing sustainable agriculture. Of particular relevance is Small Planet’s sub-goal 7.2: “Productivity is increased via accelerated conversion to sustainable agriculture, forestry and fisheries.”

In the last three decades, Viet Nam’s agricultural productivity has grown primarily by extensive natural resource utilisation and application of intensive inputs. While contributing significantly to economic and income growth, agricultural development is also responsible for the degradation of the ecosystem and human health. It could also threaten to reduce Viet Nam’s international market access for certain products due to the consumer or regulatory environmental concerns.

Viet Nam Good Agriculture Practices (VietGAP) in agriculture, forestry and fisheries has been developed as a solution to this problem, providing an official certification process for sustainable agricultural practices, including the prevention or reduction of environmental and health-related

hazards in production, harvesting and post-harvest handling of produce (Nicetic *et al.*, 2010). VietGAP was developed from GlobalGAP<sup>8</sup>, with slight adjustments in the requirements of worker and environmental protection but overall strict adherence to issues that directly relate to food safety, such as control of pesticide and fertiliser use or microbiological contamination.

In detail, VietGAP certifies standards for:

- Site assessment and selection
- Planting material
- Soil and substrate management
- Fertilisers and soil additives
- Water and irrigation
- Crop protection and use of chemicals
- Harvesting and post-harvest handling
- Waste management and treatment
- Worker health and welfare
- Record keeping, traceability and recall

From 2008, MARD issued a series of Ministerial Decisions on good practices standards (i.e., VietGAP standards) in agriculture and fisheries production, covering a wide spectrum of agricultural production from fruit and vegetables production to aquaculture production to pig production.

The strategy of empowering sustainability of agriculture production via the conversion to standardised production (i.e., VietGAP) was formalised in January 2012 (The Prime Minister of Government, 2012). The Decision provides policies that support the application of good agricultural practices for agriculture, silviculture and aquaculture for domestic consumption and export. To implement the Prime Minister's decision, MARD issued a list of agricultural and aquaculture products that are supported, which include the following taken from Circular No. 53/2012/TT-BNNPTNT:

- Farming products: vegetables, fruits, tea, coffee, pepper, rice
- Breeding products: swine, poultry, dairy cows, bees
- Aquacultural products: pangasius, giant tiger prawns, white-leg shrimps, tilapias

The application of VietGAP is also outlined as a goal in the Master Plan for Agricultural Production Development through 2020, with a vision towards 2030 (The Prime Minister of Government, 2012) (Minister Decision No. 124/QD-TTg, 2012).

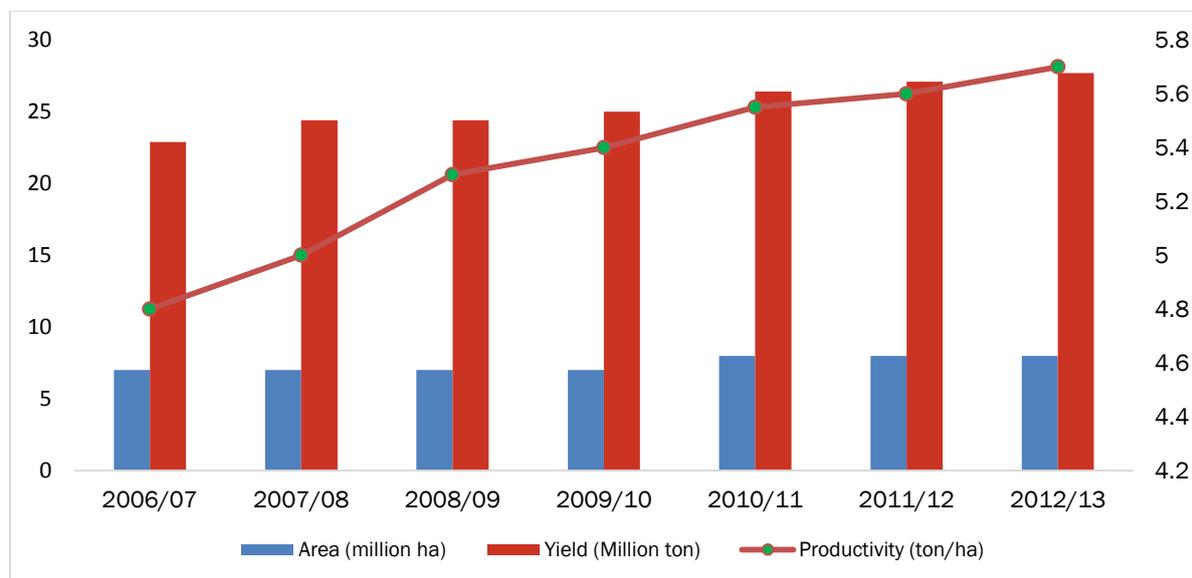
VietGAP standards and certification schemes provide a good framework for a transition towards more sustainable production. The price of VietGAP's products, in some cases (e.g., fruit, aquaculture products, etc.), fetch a higher price when sold to supermarkets, high-quality food chains or the export market, help sustain the farm production and ensure the transformation towards more sustainable agro-food systems.

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8. GlobalGAP is the most widely used good agricultural practices standard and certification scheme with 89 accredited certification bodies implemented in 80 countries worldwide. GlobalGAP is governed by retailers and producers (Garbutt & Coetzer, 2005).

## Sustainability of Rice Production

The annual growth rate of rice production in Viet Nam has been about 2% since 2000. Stable production growth and improvement in milling technology have allowed the country's rice export to grow at about 7% annually. The rice export value increased rapidly, from USD1 billion in 1999 to nearly three times the value of USD2.95 billion in 2013. The increase of rice productivity is directly linked to the sharp increase in rice yield.



**Figure 10: Viet Nam rice production**

Source: MARD (2013)

Though farmers' land rights have been greatly extended since *Doi Moi*, farmers still do not have full flexibility over crop choice, as there is a strict policy of maintaining a certain proportion of agricultural land for rice cultivation. In 2009, the total rice land area in Viet Nam was 4.09 million hectares (NIAPP, 2010). In the face of pressure to convert rice land for other agricultural and non-agricultural uses, the government plans to keep rice land at 3.8 million hectare (40% of total land area) by 2020 to ensure 41–43 million tons of paddy production (The Government, 2009).

Viet Nam's National Food Security Strategy has shown that: "Rice land is the source [sic] which is not replaced, reproduced and expanded. It is an important factor for production development. Effective land use and stabilisation of current rice land can ensure national food security." To affirm the role of rice land, the government has issued Decree No. 42/2012/ND-CP (2012) on the management and use of rice land. Article 4 of this Decree states that "land for rice cultivation must be strictly protected in the planning period, land use plan; only adjusted for national defence, security, national interests, public interests and examined by governmental agencies."

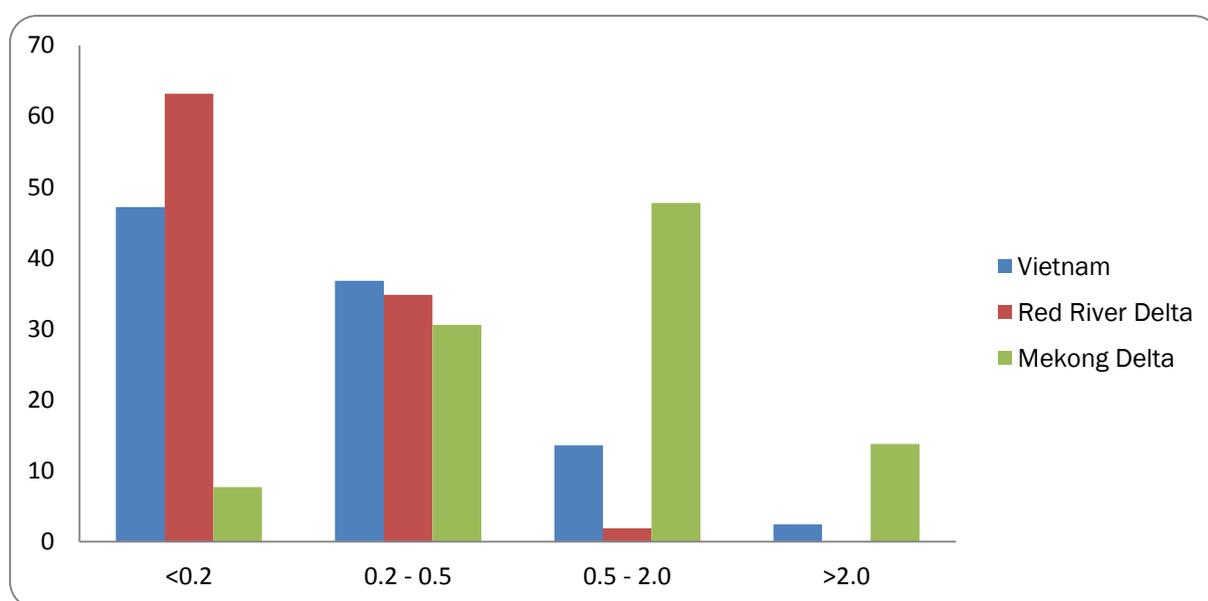
The Ministry of Natural Resources and Environment (MONRE) takes on primary responsibility and coordinates with MARD – alongside concerned ministries like the Ministry of Trade and Industry (MOIT), Ministry of Construction, and the Ministry of Transport – pinpointing land use demands, including the demands for land converted from rice land.

Provincial-level People's Committees approve rice land planning, which enables them to determine the rice land acreages that should be in their respective localities. They also produce maps on rice land use by communes and households.

MARD also takes the prime responsibility for, and coordinates with concerned ministries and branches and provincial-level People's Committees in directing investors to implement investment projects to construct rice storehouses, to ensure a total amount of 4 million tons of rice.<sup>9</sup> This effort will be supplemented by a system coordinated by MARD with provincial-level People's Committees in building databases on national food security, forecasting food output of the whole country and warning of adverse weather conditions affecting food security.

Viet Nam's rice production seems to face considerable challenges in meeting the current and future aspirations of producers (i.e., for a higher standard of living) and the preferences of consumers (i.e., for safer, higher quality food).

The inability of rice production to meet the aspirations of producers is illustrated by the fact that rice growing in Viet Nam is characterised by small-scale production, as shown in Figure 11. Unequal distribution of land is evident, as the Mekong Delta accounts for 89% of national rice growers with more than 2 hectares of land when it accounts for only 16% of the total number of rice growers in Viet Nam.



**Figure 11: Proportion of paddy growers by land use size (hectares)**  
(Source: World Bank, 2011)

Recent survey results in Tables 7 explain why the scale of production is important. The table summarises the aggregate and distinct sources of household incomes. The survey results show that very smallholder farmers make extremely little money from rice and are heavily dependent upon non-crop and non-farm income. Even the medium-scale growers are predominantly dependent upon income from non-rice sources. Only the larger rice growers can earn a reasonably good livelihood from rice production and sales although they too derive one-third of the household income from non-rice sources. To put these per capita rice income figures in perspective, the new, official rural poverty line is VND400,000 per capita per month. In our

9. As set out by Government's Resolution No. 48/NQ-CP of September 23, 2009.

survey, growers with less than two hectares were earning far less than this from rice, although these “rice farmers” were earning above this amount from off- or non-farm employment.

Farm size		Total Income Per Capita	Rice Income Per Capita	Other Crop Income Per Capita	Animal and Aquatic Income Per Capita	Off/Non-Farm Income Per Capita
<1 ha	Mean	849	151	84	82	533
	%	100	18	10	10	63
1- 2 ha	Mean	1,165	284	72	359	449
	%	100	24	6	31	39
2.01-3 ha	Mean	1,901	658	26	728	490
	%	100	35	1	38	26
>3 ha	Mean	1,933	1,296	10	88	540
	%	100	67	0	5	28
Total	Mean	1,312	535	56	209	512
	%	100	41	4	16	39

**Table 7: Farmer Incomes from Different Sources**

Unit: VND/Month/Person (thousands)

Source: World Bank, 2011

At a policy level, however, the “value” of rice exports also should take into account: (i) unmeasured costs, including the depreciated value on dedicated water resources infrastructure and the systems for irrigation management; (ii) broader social costs, especially adverse environmental impacts associated with high levels of agro-chemical and fertiliser use (and run-off)<sup>10</sup>; and (iii) the opportunity costs of the land, labour, water and other resources devoted to producing surplus rice as opposed to producing other exportable or import-substitutable commodities (Dao & Sautier, 2013). When these factors are taken into account, it is evident that generating ever-increasing levels of rice output and expansion of rice exports for “food security” purposes is not necessarily good for the welfare and sustainable growth of Viet Nam.

Nevertheless, rice output has grown on the basis of the intensification of production. Farmers believe “more is better”, applying excessive volumes of seed, fertiliser, agro-chemicals and water.<sup>11</sup> Farmer surveys and extension worker observations have found that large numbers of farmers are not applying recommended practices. This excessive input use has contributed to added costs, deteriorating health (from pesticide spraying and storage), and growing levels non-point source pollution (characterised by far-reaching transport and multiple sources of the pollutant) through the run-off of fertiliser and chemicals into surface water.

10. As well as the costs of methane emissions from irrigated rice production, especially in the Red River and Mekong River Deltas.

11. A recent study by Gregory *et al.* (2010) found the mean fertiliser use in Viet Nam rice to be 207 kg/ha in 2007, in comparison with 154, 130, 123, and 115 in India, Bangladesh, Pakistan, and Indonesia, respectively.

Over the past decade, there has been a range of initiatives to promote more efficient and sustainable practices<sup>12</sup>. One major approach, first launched in 2002, has promoted “three reductions – three gains”, with efforts to encourage farmers to use less seed, less fertiliser and less agro-chemicals and, in the process, achieve higher productivity, higher quality and more economic efficiency. Reports from the Department of Agriculture and Rural Development (DARD) indicate that the rate of application of this model rose from 17% in 2005 to 41% in 2008. However, progress has varied among the “three reductions” categories. Comparatively better progress has been made in reducing seed volumes and increasing the use of certified seed, although much further gains are possible.<sup>13</sup> Some gains have been made lowering the incidence of excessive use of fertiliser, although in most areas fertiliser use is still not well calibrated to local soil conditions. Various local programmes have sought to promote integrated pest management and reduce agro-chemical use. Adoption rates for the “three reductions, three gains”, or 3R3G programme have been high in some provinces and very low in others, with this likely to be closely associated with the presence or lack thereof of double and (especially) triple cropped rice production.

In recent years, a variant of this scheme was introduced under the heading of “one must, five reductions” (1M5R), with the five reductions including the former three (seed, fertiliser, agrochemicals), plus the reduction in irrigation water use and post-harvest losses. The one “must” is certified seed. Technically and financially feasible models have now been demonstrated and efforts are being made to scale up the adoption through the spread of demonstration plots and technical and financial assistance to adopting farmers. The success of these efforts will be essential not only for improving the long-term financial viability of rice production, but also in enhancing environmental sustainability. One of the “side benefits” of reducing water use and using drier soils would be to reduce the methane emissions given off by rice cultivation. These are currently one of the highest sources of GHG emissions in Viet Nam.<sup>14</sup>

An example of 1M5R rice farming practice is given in the following table.

	WS(n=66)			SA(n=76)		
	1M5R	Control	Diff.	1M5R	Control	Diff.
Seed rate (kg/ha)	115.4	191	75.6	109.0	181.7	72.7
Nitrogen (kgN/ha)	103.7	127.2	23.5	103.5	125.1	21.6
Insecticide (sprays/crop)	1.4	3.8	2.4	1.1	3.5	2.4
Fungicide (sprays/crop)	2.7	3.7	1	3.1	4.6	1.5
Water use (pump/crop)	7	8.5	1.5	6.4	7.7	1.3

12. See Huelgas & Templeton (2010).

13. In 2009, only 46% of farmers surveyed used certified seed.

14. It is roughly estimated that rice cultivation gives off 2 tons of methane per hectare.

Lodging rice ratio (%)	4.9	15.9	11	6.8	17.7	10.9
Yield (tonnes/ha)	7.6	7.4	0.2	5.9	5.7	0.2
Production cost (VND/kg of rice)	2,490	3,134	644	3,418	4,053	635
Profit (mil VND/ha)	21.371	17.129	4.242	12.876	8.570	4.306

**Table 8: Comparison between 1M5R and traditional rice farming practice in An Giang province (2013)**

Source: Doan, 2013

The 1M5R programme achieved remarkable results, but awareness of farmers in rice cultivation following 1M5R and reducing emissions have not been fully accepted yet. Moreover, topographical and soil quality in different regions prevent the programme from being widely deployed. For example, in Kien Giang province, located in southern Viet Nam, it is difficult to reduce water usage between summer and autumn and between autumn and winter and to reduce fertiliser use in rainy season. The form of water management plays an important role in 1M5R applications because that relates to a number of seeds apply, insect prevention, and applications of combine harvester machines.

### Possible Implementation Mechanisms

In short, Viet Nam can maintain its food security well into the medium term even if a substantial amount of land currently designated as “rice land” is converted to other agricultural uses.

Rice land should be kept in favourable, natural-condition areas and by large-scale growers. Outside of these areas, especially where only one rice crop can be grown per year, where conditions are less suited for rice, or where medium-term climate change impacts could be severe, the government should establish more flexible land use arrangements, agricultural diversification, and a more diversified and vibrant rural economy in general. This will entail relaxing the administrative restrictions on “rice land designation”, the provision of longer-term land use rights (to encourage investment in perennial crops, etc.), and different types of infrastructure and agricultural support services more appropriate for “higher value” yet more perishable agricultural commodities and new production activities.

It is recommended that this effort to promote good agricultural practices in rice initially concentrate in the “core rice belt” – the areas that are currently generating most of the surplus and those that will constitute the core of production long into the future. These are the areas where many farmers will remain specialised rice growers, and where economies of scale and scope in programme implementation are possible. Within the “core rice belt”, the government should support an incremental process of landholdings consolidation up to approximately three hectares in order to enable farmers to realise the apparent economies of scale.

It is necessary to establish a farm monitoring system for rice growers in order to collect data and analyse the living standards of rice growers, and evaluate impacts of supporting policies for them. The monitoring system may include a set of questions answered and sent directly by rice growers via mobile phones (e.g., via SMS), or emails to the district/provincial DARDs and then, to

the Department of Crop Production and other related institutions such as IPSARD in MARD. The information and data should then be analysed, the results of which should be shown in the MARD website and, if necessary, sent to ministry leaders via policy briefs.

The food security monitoring system also needs to be restructured to introduce the reporting of sustainable development indicators. DARD's office in all provinces should handle collecting data relating to food security and reporting it to MARD and the government. Details of some suggested indicators are given in following table:

<b>Traditional Indicator</b>	<b>Sustainable Development Indicators</b>
Agricultural GDP	Agricultural GDP adjusted with consideration for addition/depletion of natural capital
Yield (tons per hectare)	Yield and value per hectare/worker/unit of water/capital invested Total factor productivity
Export volume (or gross value)	Export value per hectare Net value added Share of export value added earned by farmer
Area served by Irrigation (in hectares)	Economic value per unit of water Capacity utilisation of irrigation system Irrigated area with sustainable financing
Rice production (aggregate or per capita)	Child Malnutrition Rate Dietary Diversity Index Food Consumer Price (volatility) Index

**Table 9: Sustainable development indicators for rice production**

#### 4: GOVERNANCE ARCHITECTURE AND SDG IMPLEMENTATION OPTIONS FOR CLIMATE CHANGE AND ENERGY POLICIES

This chapter looks at the governance structure for climate change and energy at central and local levels, identifying main stakeholders, their mandates, and how they coordinate with each other in fulfilling their responsibilities. This section also presents mechanisms for funding, monitoring and reporting relating to climate change and energy, and pinpoints major challenges and weaknesses in the current governance model that may hamper sustainable development.

As a specific example, the chapter takes a more detailed look at electrification, as a possible SDG priority area where Viet Nam requires further progress. In addition to identifying the status of electrification and the existing gaps, the chapter also looks at possible policy, technological and capacity development measures that could be used to close the gap, as well as financial measures and incentives that could ensure the goal is met.

##### Relevance, Current Status and Trends

Viet Nam has significantly developed its energy sector during the past few years of reform, especially with respect to electrification. In fact, the number of households connected to the electricity grid increased from 77% in 1998 to nearly universal coverage (96%) by 2010 (World Bank, 2012). This progress, however, has also been accompanied by an increase in Viet Nam's annual average surface temperature by approximately 0.5°C to 0.7°C and a 20-cm rise in sea levels along its coastline over the past 50 years (ISPONRE, 2009). In fact, the World Bank has ranked Viet Nam among the top five countries likely to be most affected by climate change. For example, climate change is expected to cause floods and droughts to occur more frequently, affecting the growth of rice crops, and consequently Viet Nam's food security and major export revenue. Another major risk is posed by a rise in the sea level, with the Mekong Delta (an area which accounts for around half of the country's rice production) projected to undergo a loss of 590,000 hectares due to inundation and saline intrusion (GFDRR, 2013).

The challenge that Viet Nam currently faces is to develop a sustainable energy source that will not only aim to address the country's vulnerability to climate change, but will also meet the growing demands for energy as the country continues to develop. Despite the strong growth of Viet Nam's petroleum, coal and hydropower sectors in the past few years, the capacity of Viet Nam's power system will need to double in the next five years in order to meet the growth of energy demand based on the 2006–2010 figure of 16% increase per annum (World Bank, 2013).

Another challenge that Viet Nam has yet to overcome is rural electrification. Despite the dramatic improvements in electricity access in Viet Nam, rural electrification is still low in service quality with poor reliability and low voltage (World Bank, 2013). Thus, the rural population still relies heavily on non-commercial biomass energy sources, which accounts for almost half of total energy consumption (EU Economic and Commercial Counsellors, 2011).

Due to the fact that the energy sector remains predominantly in the public sector, the actions that the government and other relevant institutions decide to take to address these challenges will have a significant bearing on the future of the energy sector.

## Lead Institutions and Their Roles

According to the governance structure of Viet Nam, energy and climate change are subject to the mandate and function of the Ministry of Industry and Trade for energy-related issues, and the Ministry of Natural Resources and Environment for climate change issues. There is also a National Committee for Climate Change chaired by the Prime Minister and other ministries that deal with climate change issues within their mandates. For mitigation, climate change involves mostly energy and industrial agencies, and for adaptation purposes, it involves other agencies, such as agriculture, natural disaster, and construction. Energy and climate change are closely linked, and the governmental agencies cooperate with each other in these areas.

The Ministry of Natural Resources and Environment (MONRE) is assigned by the Prime Minister as the leading climate change planning and governance agency in Viet Nam. It serves as a focal point for international treaties on climate change; prepares national climate change policies; and targets, plans and coordinates the delivery of these strategies. It also coordinates the evaluation and selection of climate change projects under the Support Program to Respond to Climate Change (SP-RCC) system, as well as plans climate change budgets with the Ministry of Planning and Investment and the Ministry of Finance (The Government, 2013a). Within MONRE, the Department of Hydro-Meteorological and Climate Change supports the ministry in climate change policy issues, while the National Hydro-Meteorology Centre is a technical agency in charge of weather forecasting, sea level measurement and hydrological information.

The Ministry of Planning and Investment (MPI) manages overall development strategies, planning and investment at the central level and is in charge of resource allocation, including Official Development Assistance, or ODA. Within MPI, the Department of Science, Education and Natural Resources and Environment supports the climate change policy formulation and fund management and leads the Green Growth Strategy. MPI also manages economic planning of public investment in energy projects. Finally, together with the Ministry of Finance, MPI prepares annual investment plans (i.e., state budgets, concessional credits and ODA funds).

The Ministry of Finance (MOF) is the lead agency for finance management, budget allocation and risk financing. Its Department of Public Finance is assigned by the Minister of Finance to be in charge of policy formulation, management of funds and projects relating to climate change.

The Ministry of Agriculture and Rural Development (MARD) aims to mainstream climate change in agricultural planning. Within MARD, the Directorate of Forestry is the technical agency and resident body for Reducing Emissions from Deforestation and Degradation (REDD). The Directorate of Water Resources is the technical agency and resident body for MARD's climate change programme, including food security, rural development and water resources management.

The National Climate Change Committee (NCCC) was formed with Decision No. 43/QĐ-TTg in January 2012. MONRE coordinates NCCC activities alongside other ministries, namely, MPI, MOF and MARD. NCCC's roles and tasks include: (i) research for the Government and the Prime Minister on climate change approaches and measures; (ii) helping the Prime Minister coordinate line ministries on climate change strategies and programmes, green growth, energy efficiency, and emission reduction; and (iii) directing international cooperation and mobilising resources for climate change.

At the provincial level, the Provincial People's Committees are responsible for governance of climate change issues within their territories, with the responsibility of governance on the district level going to the Department of Natural Resources and Environment (DONRE) (Joint Circular No. MONRE, 2008), which is a sub-organisation of the Committees.

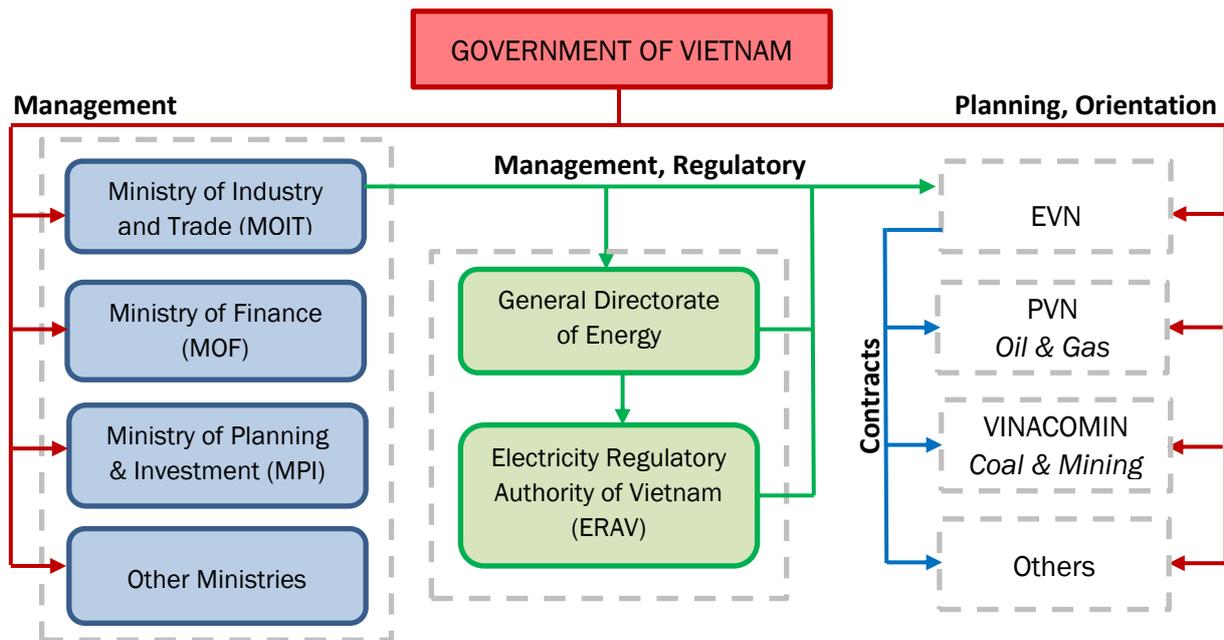
The Ministry of Industry and Trade (MOIT) is responsible for managing all energy industries, namely, in electricity, renewable energy, coal, and the oil and gas industries. MOIT is in charge of the formulation of policies and relevant strategies and planning with respect to these sectors, and submits them to the Prime Minister for approval. MOIT is also responsible for the development of the energy sector and for reporting findings to the Prime Minister (The Government, 2012d).

MOIT's General Directorate of Energy helps the Minister of Industry and Trade implement state management functions on heavy industry and law enforcement for organisations and individuals involved in energy sector activities, including oil, fuel gas, electricity production, nuclear energy use, and new and renewable energy.

Under MOIT, the Electricity Regulatory Authority of Vietnam (ERAV) helps the Minister regulate electricity by: (i) issuing electricity operation licenses; (ii) reviewing frameworks of electricity generation, as well as electricity wholesale prices, transmission, distribution, and service fees prepared by the electricity units; (iii) asking the Minister to issue regulations on preparing, reviewing, obtaining feedback and approving retailed electricity selling tariffs; (iv) compiling regulations and guidelines on the activities of the power market.

At the local level, the provincial Departments of Industry and Trade (DOIT) help the Provincial People's Committees (PPCs) in managing energy, including electricity and renewable energy. DOIT is subject to the technical direction of MOIT and handles organising and implementing provincial plans on power development and renewable energy.

In the corporate sector, Vietnam Electricity (EVN) dominates the generation and sale of electricity in Viet Nam. EVN is a state-owned enterprise working in production, transmission, distribution and sales of electricity with a charter capital of over VND48 trillion (The Government, 2013c). EVN's facilities generate about 74% of electricity production output, the remainder of which is from local or foreign independent power producers. Independent power producers play an increasingly important role in the country's electricity market. There are two major foreign power producers: Phu My 3 (output capacity of 716 MW, with a gas plant costing USD412 million) and Phu My 2.2 (output capacity of 715 MW, with a gas plant costing USD410 million). The most active independent power producers are EDF, Sumitomo, Sojitz, BP, Sembcorp, PVN and VINACOMIN.

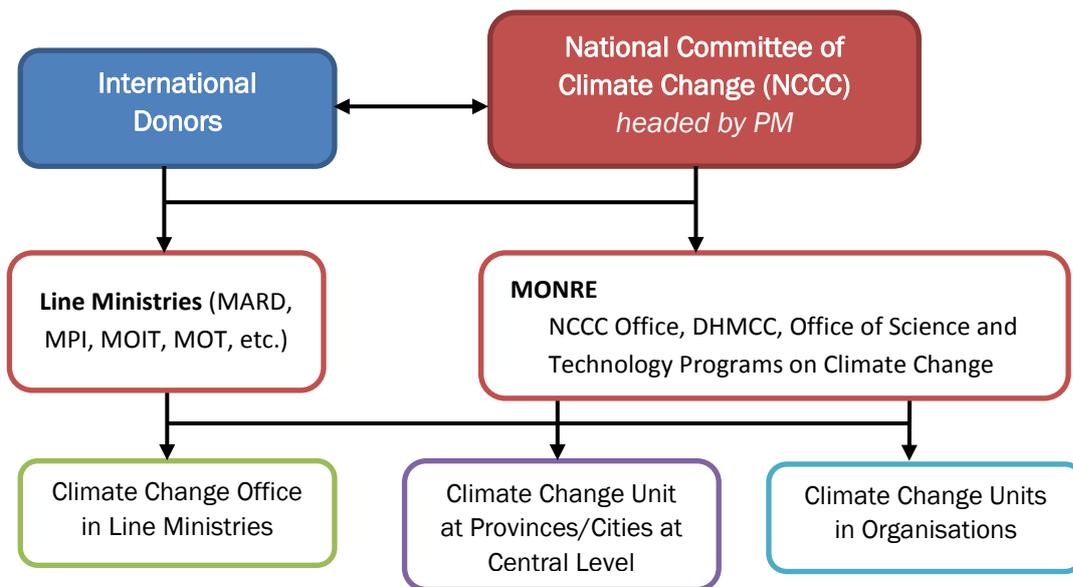


**Figure 12: Governance Structure for Energy in Viet Nam**  
Source: EVN (2012)

### Key Policies and Financing Mechanisms

In 2008, Viet Nam launched the National Target Program to Respond to Climate Change (NTP-RCC), a five-year plan prioritising national climate change responses. The scope and content of the NTP-RCC includes mitigation, adaptation (including disaster risk management), and cross-cutting issues (e.g., monitoring, implementation, financial mechanisms for implementation, awareness raising, capacity building and human resource development).

The NTP-RCC sets up a governance model for implementation through the National Steering Committee, Executive Board and Standing Office, together with responsibilities of ministries, sectors, provinces, and related organisations. However, the National Climate Change Committee (NCCC) has replaced the role of NTP Steering Committee and currently is taking responsibility of directing and coordinating activities of climate change responses. The governance structure for climate change policies in Viet Nam is illustrated in the following chart:



**Figure 13: Governance structure for development of climate change policies in Viet Nam**

Source: Nguyen (2013)

The Prime Minister approved the National Climate Change Strategy in late 2011 to promote sustainable use of resources, adaptation and mitigation for GHG emissions, sustainable development goals that safeguard people's livelihood, resilience to climate change, a low-carbon economy, and balance between national security and sustainable development.

For energy, on 27 December 2007, the Prime Minister signed Decision No. 1855/QĐ-TTg approving Viet Nam's National Energy Development Strategy until 2020 and the Vision for 2050. Some of its objectives include:

- To supply adequate energy, including 47.5–49.5 million TOE (ton of oil equivalent) of primary energy by 2010, 100–110 million TOE by 2020, 110–120 million TOE by 2025 and 310–320 million TOE by 2050.
- To develop electricity sources and grids to meet electricity demands for socio-economic development with the reliability of electricity supply at 99.7% by 2010;
- To complete energy development in rural and mountainous areas and increase the rate of rural household using commercial energy for cooking to 50% by 2010 and 80% by 2020. By 2020, most rural population shall have access to electricity.

Main elements of this strategy relating to promotion of renewable energy development are: to diversify renewable energy resources; to encourage research and application of renewable energy sources (focusing on remote areas); and to increase the share of renewable energy in total commercial primary energy supply to 3% by 2010, 5% by 2020, and 11% by 2050.

MOF, MPI and the State Bank of Vietnam coordinate studying, perfecting and promulgating mechanisms on mobilisation and efficient use of capital for investment in energy development.

The Prime Minister's Decision No.1208/QĐ-TTg on 1 July 2011 approved the National Electricity Development Master Plan 2011–2030 to be implemented by MOIT. (The plan is explained later

in this chapter). MOIT also directs the development or import of gas and coal resources for electricity production, industry and other necessities; develops funding plan for electricity development; and chairs the relevant ministries, agencies and localities to develop mechanisms and policies for investment and development projects of new and renewable energy.

MPI develops mechanisms and policies to attract foreign investment, ODA and private capital. It coordinates with the MOIT in providing sufficient budget for preparation and promulgation of the master plan for power development.

MOF chairs and coordinates with related ministries and agencies to develop financial mechanisms and capital mechanisms for the development of the power sector in accordance with the approved master plan. It coordinates with the MOIT in developing policies on electricity prices, according to the market mechanism.

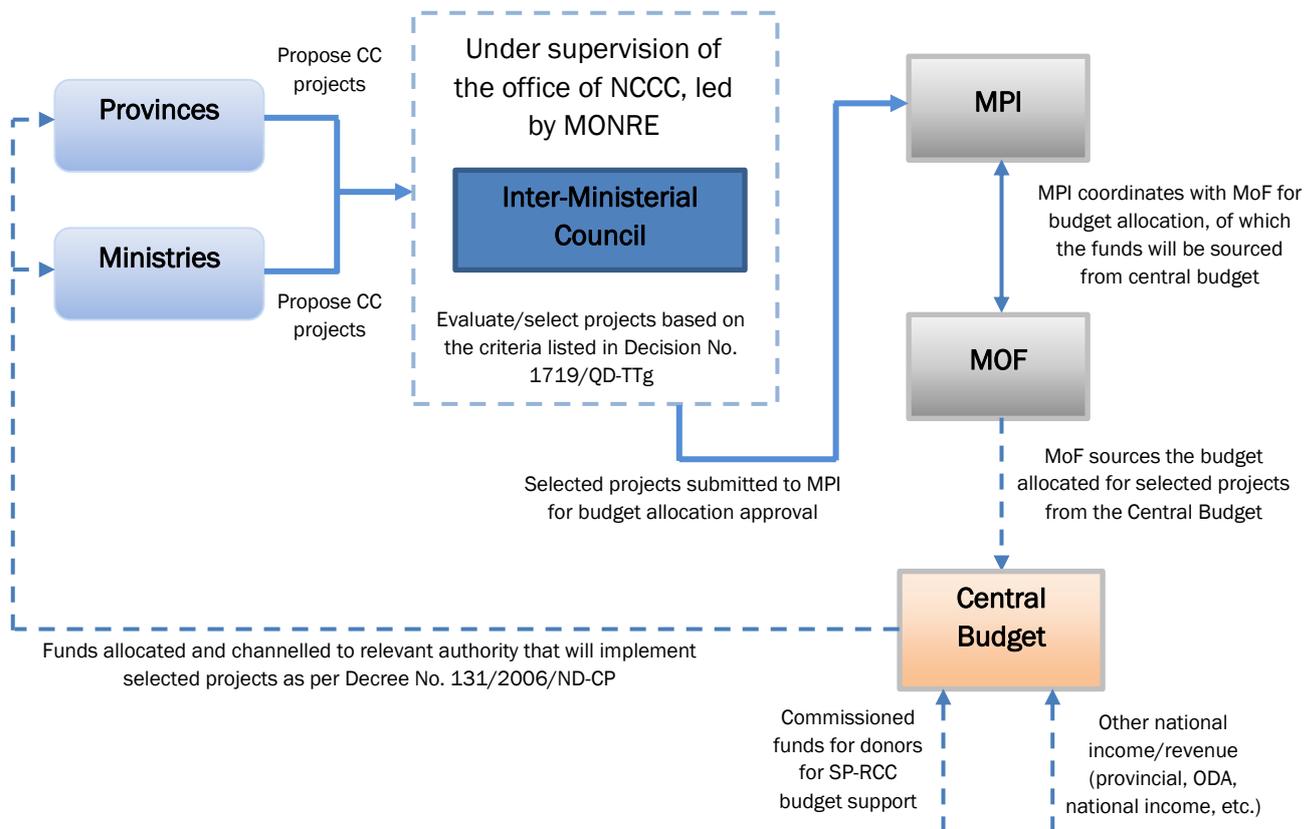
EVN invests and supports power source projects and transmission grid projects, purchases electricity from power sources, imports electricity, manages and operates power transmission and distribution grids, implements solutions to reduce power loss, develops power saving programs in electricity production, transmission and distribution. Petroleum Vietnam (PVN) and VINACOMIN also invest and operate power projects in accordance with the approved schedule.

Provincial People's Committees and municipal cities allocate land for local power supply, power transmission works and other projects approved in the local master plan for power development. They also coordinate closely with investors in site clearance, compensation, and resettlement for the projects of power sources and power grids.

In addition to the state budget, funding for climate change adaptation and mitigation is still largely from ODA. Other sources of climate finance are carbon credits from the Clean Development Mechanism (CDM) and limited private sector investment.

As climate change is a cross-cutting issue across various sectors including energy, transport, industry and agriculture, it is usually not classified as a separate budget line in the state budget, making it difficult to estimate how much of the state budget is used for climate change. However, Viet Nam has generated 1% of issued Certified Emissions Reductions (CERs) from CDM projects, which comes to around 7,547,000 CERs, amounting to a carbon credit revenue of about €2,415,040, which is equivalent to around VND56 billion (CDKN-GIZ, 2013). Since 1998, about USD64 billion (equivalent to around VND1378 trillion) has been pledged in ODA to Viet Nam, which makes bilateral and multilateral funding the main sources of climate finance in Viet Nam (Tirpak *et al.*, 2012).

The SP-RCC was established to provide donor support for the implementation of the NTP-RCC. Distribution of funding under the SP-RCC follows the state budget law and the ODA funding flow regulations (The Government, 2006). All budget support to SP-RCC is directed to the central budget. MONRE leads the evaluation and selection of climate change projects submitted to the SP-RCC fund based on the criteria listed in Decision No. 1719/QD-TTg. The list of selected and prioritised projects put together by MONRE is submitted to the MPI. MPI allocates the budget for the selected projects from the central budget, submits the budget allocation to the MOF, which then passes along this funding to the local budget (MONRE, 2013).



**Figure 14: Project evaluation and funds channelling flow for SP-RCC (CDKN-GIZ, 2013)**

There are various funds that finance the numerous projects involving the energy sector, particularly those aimed at enhancing energy efficiency or renewable energy development. Here are some of the most prominent financing mechanisms for energy:

- Clean Technology Fund (CTF) supports direct finance for 2,000 MW of private sector energy efficiency and renewable energy projects. The government of Viet Nam has developed an investment plan in coordination with the Asian Development Bank, the World Bank, and key Vietnamese stakeholders, to tap USD250 million from the CTF for targeted renewable energy and low carbon investments in the power, transport, and industrial sectors.
- Vietnam Environmental Protection Fund (VEPF) was established under MONRE to finance environmental protection activities and manage CDM activities, including monitoring and managing of certifications, sale and distribution of CERs. The VEPF has disbursed about USD50 million in loans for 156 environment projects in Viet Nam (USAID, 2014). VEPF also funded renewable energy projects, including projects in hydropower, biogas, and energy efficiency (i.e., unfired bricks) to develop them under the United Nations Framework Convention on Climate Change.

- Fund for Energy Saving, recently established by the Danish Embassy in Viet Nam in collaboration with MOIT, has a total budget of USD 11 million for business investment.

## 1. Energy pricing

MOIT sets the electricity tariffs for energy pricing, especially for electricity, except for isolated networks where they are set by local electricity retailers. Both urban and rural residential rates are cross-subsidised by higher rates for industry, commerce, and foreign consumers. Electricity prices vary depending on time of consumption, to encourage people to save electricity and to consume electricity in off-peak hours.

Electricity prices were increased by 5% in August 2013, following the decision of the Ministry of Industry and Trade. EVN raised its electricity price from VND71.85 per kWh to VND 1,508.85 per kWh on average (Phuong, 2013). The first 50 kWh used by poor and low-income households is priced in the lowest range. Poor households<sup>15</sup> will enjoy a subsidy of VND30,000 per household per month for electricity bills (The Government, 2011c).

## 2. Incentives

The government has shown its commitment by making policies that incentivise climate change mitigation and adaptation by promoting energy efficiency, reforestation and development of livelihoods. However, since the policies are diverse and scattered, it is quite difficult to track them and their effects. Additionally, the impact of these policies has remained very limited so far, as the system lacks concrete and attractive targets for potential investors.

During the project development phase, renewable energy projects will be exempt from import and value-added tax, and receive investment cost support. During the operation phase, they will enjoy a preferential corporate tax rate, access to free land, accelerated depreciation rates and will be offered a purchasing price equivalent to the avoided cost of the system.

There is also pricing subsidy for the poor. For example, Decision No. 2409/QĐ-TTĐ by the Prime Minister in 2011 provided VND930 billion in the same year to help poor households pay electricity bills and used social security expenditure of the central budget to support electricity bills for poor households under national poverty line (The Government, 2011d).

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15. "Poor households" in Viet Nam are defined by having less than VND400,000 income per month (USD20) (The Government, 2011b).

## Box 2: Summary of incentives for renewable energy projects

The Viet Nam government offers the following incentives:

- Renewable energy power plants can receive funds for investment, as well as exemptions from electricity tariffs and taxes.
- Investors can benefit from exemptions from import tax and land fee over a given time.
- Investors are supplied with preferential loans of up to 80% of the investment costs of projects in renewable energy enterprises.

The existing incentives have not been sufficient yet to create the nurturing environment for boom of renewable projects and the sale of renewable energy products. There is definitely a potential to explore more options of supporting renewable energy projects.

Sources: Nam, et al. (2012) and Renewable Energy Project (n.d.)

## Monitoring and Reporting Mechanisms

Generally, MOIT is in charge of monitoring the implementation of the energy development strategies and reporting to the government, based on reports from local Departments of Industry and Trade and local governments. The situation is similar in case of climate change, with the main responsibility comes to MONRE. However, there is usually insufficient information as to how the strategies are being implemented, particularly at local levels, so this system is of course problematic.

For suggestions with regard to climate change, there should be several improvements relating to:

- Coordinating mechanisms between MONRE and other line ministries, to enhance the role of National Climate Change Committee, as well as cooperation among Provincial People's Committees (PPCs) and PPCs with ministries.
- Raising awareness and building capacity are essential. It is very important that awareness is raised further, technical advice on climate change mainstreaming is provided, and that capacities are built during the implementation of the NTP-RCC.
- Expanding sources of funding and attracting financial aid for climate change mitigation and adaptation purposes, both from domestic or international.

## Selected SDG Sub-Goal and Its Relevance for Viet Nam

The Small Planet report's SDG sub-goal 8.1 states, "Everyone has access to sufficient energy and consumption is efficient and sustainable." The country has had impressive achievements in electrification. Around 2.5% of households used electricity in 1975, and the figure increased to more than 98% in 2013. In particular, nearly 97% of rural households used electricity. Electrification has changed substantially the livelihood of millions of Vietnamese people, especially those living in the countryside and remote areas, in many other aspects: from income to education, health, transportation and information access. The government aims to hit 100% electricity access by 2020, though this objective is quite challenging since it is difficult to have the grid for remote areas. There are still around 1 million people who do not have access to electricity, and for the 98%, who already have access, provision is not always stable and sustainable consumption is in question. Therefore, electrification is a significant issue for sustainable goals in Viet Nam.

The government has built a clear policy framework with a set of principles, long-term goals and national commitments to the development and implementation of off-grid rural electrification.

For one, the Master Power Plan VII for 2011–2020 contains the strategy for rural power supply. The government will stimulate EVN to develop the national power grid to supply power to 100% households by 2020. The aims are (MOIT, 2011):

- To develop the national power system to supply sufficient electricity to rural areas. In case these areas cannot meet conditions to access to national power grid, the government will provide investment and support policies for a local power resource to ensure that by 2020, electricity is available to 100% of households.
- To support socio-economic development, including developing power supply system in remote areas, especially if it concerns ethnic minorities, maintaining defence security, and improving livelihoods and physical and mental well-being.
- To have a government programme to develop investment and power supply to all hamlets and the ethnic minorities of the Central Highlands.
- To upgrade rural power grid to increase supply capability and electricity quality and reduce power loss in power lines.

For this rural electrification programme, the estimated total capital investment is about USD1.5 billion to electrify about 550,000 households. The national budget will finance 85% of this cost while local budgets and EVN will cover the remaining 15%.

### Electrification of Remote Areas

The Master Power Plan VII (MOIT, 2011) set out for the national power grid to cover all 63 provinces and 98% of districts by September 2009. Of those, 11 rural districts out of a total of 547 districts have yet to connect to the power grid; they instead receive electricity that is distributed via local diesel power and local small hydro power plants. On a community level, 97.93% of communes have access to electricity, in which 97.5% of communes are connected to the power grid and 0.5% of communes' access electricity by local power production. Currently, 2.07% of communes are without electricity. At the household level, 94.7% of rural households, or 96% of all households in Viet Nam, are connected to the national grid according the Master Power Plan. Some 58,961 households, or 0.3% of total households, access electricity from local decentralised power generation.

Figures from EVN's companies also show improvement in electrification. In 2009, there were 784,470 households with no connection and 56,010 households with decentralised electricity supply. In 2012, these figures reduced to 549,131 and 30,925 households, respectively (MOIT, 2011).

Retail electricity prices for domestic consumption in off-grid areas, such as rural areas, highlands and islands, are approved by the Provincial People's Committees. These cannot exceed the annually adjusted ceiling price of VND3,772 per kWh and floor price of VND2,263 per kWh (MOIT, 2013). Owners and investors of decentralised electricity production receive subsidies for their losses incurred when selling electricity to local customers through the regulated price.

Electricity consumption in Viet Nam is growing from a very low base. In 1995, consumption was 156 kWh per capita per year. By 2009, this increased to 865 kWh per capita per year. This average electricity consumption is still low compared to other East Asian and Pacific countries, at 1,883 kWh per capita year for 2007, and other low and middle-income countries worldwide, at 1,606 kWh per capita per year (MOIT, 2011).

**Box 3: News excerpt on access to national power grid for a remote island in Central Viet Nam**

*Ly Son Island's [in Quang Ngai Province] historic connection to the national power grid through an undersea cable line overjoyed islanders on September 28, 2014 as they can now have 24-hour access to electricity at lower tariffs.*

*The cable line is forecast to bring VND16 billion in annual economic benefits, give a much-needed boost to social and economic development on the island with a population of more than 22,000 people.*

*Previously the island's 5,000 households could use electricity from 5 p.m. to 11 p.m. daily as the diesel-fuelled power station was capable of turning out a mere 10,000 kWh a day. This shortage of supply made power prices expensive. With the availability of electricity around the clock the island will have the opportunity to boost its maritime economy and tourism.*

*The provincial government could now expect an increase in tours to the island and that sufficient power supply could ensure better services at lower prices.*

Source: Saigon Times Daily (2014)

A policy of 100% electricity access by 2020 is difficult, particularly for unconnected remote areas. As neither the EVN nor the national state budget is expected to cover the grid extension, local governments can avoid investing their state budget allocation.

Almost every survey done on rural electrification, specifically in Viet Nam indicates that proper training and knowledge transfer are required (World Bank, 2011). Enterprises interested in energy projects often have limited skills in developing plans to attract sufficient financing. Local enterprises also have limited information on available technologies abroad, which leads to low-quality imports.

The major sources of inefficiency include old technologies and poor energy management practices. Most existing coal and oil-fired plants have low fuel efficiency, due to old facilities and technology (World Bank, 2006). In 2005, energy losses in power generation amounted to 9.5% of total primary energy consumption (Tien & Deepak, 2011).

Further improved reliability of electricity provision is needed to prevent blackouts and brownouts. This includes improving the power network to reduce transmission losses and increase energy efficiency. Alternative energy sources are also important in supporting sustainable development, but renewable energy is under-developed due to high costs and technical failure.

## Possible Implementation Mechanisms

For rural electrification, the engagement of all levels of government early in the decision-making process is an essential factor for long-term success. The responsibilities for project planning, development and implementation need to be clearly shared among various stakeholders. This kind of approach increases ownership and commitment of the different actors, and ensures that decisions are taken close to the operational level.

Centralised planning approaches risk disconnection from provincial and local actors and may not reach the intended beneficiaries. Bottom-up approaches are often the centrepiece of successful rural electrification programmes (ASEAN Centre for Energy, 2013). The involvement of local communities, district and provincial governments at an early stage ensures success in the long run. Participation of the local community in project development enables a setup that is close to the local needs and demands. Also, it is advisable to conduct a comprehensive socio-economic baseline study of the target community before implementing a rural electrification project in order to monitor developments and improvements.

In addition, a single institution entrusted with the overall steering, coordination and promotion of rural electrification activities allows for efficient resource allocation and consistent planning. Several other institutions need to be included as coordinating parties, but should not be allowed to implement activities on their own account. It is advisable that the institution in charge establishes a common national guideline for monitoring and evaluating the impacts of rural electrification projects (ASEAN Centre for Energy, 2013).

The plan also needs to take into consideration roles and contribution of women in electrification projects. Rural women are among the principal beneficiaries of a rural electrification project. Access to electricity may significantly improve their health, income and status. Also, in some rural villages, women are often heads of the households and responsible for household energy expenditures. Their willingness to pay for electricity is thus important for project planning.

Beyond institutional mechanisms, capacity building needs assessment is a key step in planning rural electrification projects. The findings of such an assessment are important for designing a comprehensive capacity building plan that best responds to the needs of each group of stakeholders of rural electrification projects.

Policies promoting electrification should, as a minimum, include a development strategy with realistic action plans, transparent electricity pricing and financing policies. For instance, the 1999 Rural Electrification Policy Paper required entities supplying electricity to rural consumers to be provided with adequate financial incentives to remain in business and maintain an acceptable level of service.

The financial incentives and electricity pricing policies should include specifications for types and amounts of financial incentives for rural electrification projects; criteria for entities eligible for financial incentives; and general pricing principles for rural electrification.

Areas/Period	2010–2015	2015–2020	2010–2020
Northern provinces	7,698	8,924	16,622
Central provinces	2,597	2,975	5,572
Southern provinces	6,651	8,684	15,335
Total	16,946	20,583	37,529

**Table 10: Estimated budget for rural electrification programme in the period of 2010–2020 (VND billion)**

Clear principles for cost sharing should be established in order to mobilise various resources to finance rural electrification efforts. For example, the central authority (possibly supported by international partners) could provide the budget for project development and equipment procurement, while the provincial government could cover construction costs with the local community contributing labour for construction and installation. The provisions of financial support by provincial, district and local authorities are therefore important factors to rapidly increase access to electricity in off-grid rural areas (ASEAN Centre for Energy, 2013).

The involvement of international partners provides not only financial resources, but also enables exchange in technical expertise on rural electrification programme management. The establishment of a central electrification fund mobilises contributions either from government budget or grants and/or soft loans from international and local financial institutions, independent from annual government budget negotiations.

Apart from public and private financing, public-private partnership combines the advantages of private and government financing mechanisms. It can offer lower tariffs of electricity, make project setup and implementation more efficient, and ensure business operations remain sustainable.

Local banks and microfinance institutions can also offer preferential micro-credits for rural villagers to pay for electricity service and to initiate or expand their productive activities. This helps to increase the number of customers, thereby improving the financial viability of the project.

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## ANNEXES

Annex 1: Selection of legal documents in Viet Nam pertaining to multidimensional poverty

Dimension	Indicators	Deprivation threshold	Legal documents
<b>Education</b>	Highest educational attainment of household members (aged 15–30)	At least one household member (aged 15–30) who does not attend school or does not have a high school diploma	Constitution 2013 Resolution 15/NQ-TW Resolution 41/2000/QH10
	School attendance of household members (aged 5–15)	Any school-aged child (aged 5–15) that does not attend school	Constitution 2013 Law on Education 2005 Resolution 15/NQ-TW Law on child protection, care and education
<b>Healthcare</b>	Access to healthcare service	Any sick household member who does not receive medical treatment	Constitution 2013 Law on healthcare
	Health insurance	At least one household member who does not hold a health insurance card	Constitution 2013 Law on health insurance Resolution 15/NQ-TW
<b>Living standard</b>	Shelter	Whether the household resides in 1. Semi-permanent or temporary housing Or 2. Housing per capita below 8m <sup>2</sup>	Resolution 15/NQ-TW Law on housing Resolution no. 10/NQ-CP Decision 2127/QD-TTg
	Clean water	The household's access to safe drinking water	Standard of the Ministry of Health
	Sanitation	Whether the household has sanitation facility	Standard of the Ministry of Health
<b>Social Insurance and Security</b>	Social insurance	At least one working household member who does not have social insurance	Constitution 2013 Law on social insurance Resolution 15/NQ-TW
	Social security	At least one household member who is beneficiary of social protection	Constitution 2013 Law on child protection, care and education Law on the elderly
<b>Access to information</b>	Access to telecommunication service	Whether any household member uses a mobile phone or accesses the Internet	Law on telecommunications
	Assets to access to telecommunication service	Whether the household has any of following items: TV, radio, computer, etc.	Law on telecommunications

Annex 2: List of tasks, projects and implementation programmes of the national action plan for sustainable development stage 2013–2015

No.	Ministry	Tasks
1	Ministry of Planning & Investment	<ul style="list-style-type: none"> <li>• Develop the Circular, guiding the implementation of sustainable development strategy in Viet Nam in the period 2011–2020</li> <li>• Develop the programme or action plan for ministries, sectors and localities, to implement the Sustainable Development Strategies</li> <li>• Develop the electronic website of the National Council on Sustainable Development and Competitiveness Enhancement</li> <li>• Integrate sustainable development into socio-economic and sectoral development strategies, and development plans</li> <li>• Develop and implement the sustainable development models in various areas in Viet Nam</li> <li>• Implement the Green Growth Strategy, step by step</li> <li>• Raise funds for implementing the sustainable development strategies</li> <li>• Enhance the role and responsibilities, and strengthen the participation of business, political organisations, socio-society organisations, professional organisations, non-governmental organisations and communities</li> </ul>
2	Ministry of Justice	<ul style="list-style-type: none"> <li>• Review the legal document system and applicable policies, proposing amendments and necessary supplements to improve the legal framework for the implementation of sustainable development</li> </ul>
3	Ministry of Interior	<ul style="list-style-type: none"> <li>• Complete organisation system at all levels to implement sustainable development management</li> </ul>
4	Ministry of Finance	<ul style="list-style-type: none"> <li>• Develop the programme or action plan for ministries, sectors and localities to implement the Sustainable Development Strategies</li> <li>• Establish national sustainable development funds</li> <li>• Develop mechanisms and policies in order to attract financial resources for sustainable investment</li> </ul>
5	Ministry of Information & Communications	<ul style="list-style-type: none"> <li>• Strengthen the role and involvement of the media in the implementation of sustainable development</li> </ul>
7	Ministry of Agriculture & Rural Development	<ul style="list-style-type: none"> <li>• Develop and implement a community sustainable development model</li> <li>• Develop the market for environmentally friendly agricultural products</li> </ul>
8	Ministry of Industry & Trade	<ul style="list-style-type: none"> <li>• Develop and implement the clean-energy development model</li> </ul>
9	Ministry of Construction	<ul style="list-style-type: none"> <li>• Research and calculate the indicators for green gross domestic product</li> </ul>
11	Ministry of Foreign Affairs	<ul style="list-style-type: none"> <li>• Research and establish the regionally-based Green Development Center</li> </ul>
12	Ministry of Labor, War Invalids, & Social Welfare	<ul style="list-style-type: none"> <li>• Create sustainable employment</li> </ul>
13	Ministry of Natural Resources & Environment	<ul style="list-style-type: none"> <li>• Develop the market for environmentally-friendly products</li> </ul>
14	Ministry of Science & Technology	<ul style="list-style-type: none"> <li>• Enhance the scientific and technological capacity for scientific and technological organisations to serve sustainable development</li> </ul>