



SUSTAINABLE POVERTY REDUCTION AND NATURAL DISASTER RISK MANAGEMENT IN THE CENTRAL COASTAL REGION:

LESSONS LEARNED AND POLICY IMPLICATIONS

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Sustainable Poverty Reduction and Natural Disaster Risk Management in the Central Coastal region: Lessons Learned and Policy Implications

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“Make an effort to bring the regions out of poor development and minimize their passive response to natural calamities. Speed up poverty reduction and hunger elimination, especially on the Western mountainous areas and the capes.”

*Orientations for regional development: The North and coastal areas of the Central Region.
Socio-Economic Development Plan (SEDP) 2011-2015*

“Pro-activeness in disaster prevention and adaption for development”

*Approach to be applied for the Central Coast, the Eastern South and Islands
National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020 (2007)*

EXECUTIVE SUMMARY

Viet Nam is one of the countries globally most at risk of disasters and has been identified as one of 30 extreme risk countries due to climate change. At the same time, Viet Nam's significant achievements in reducing poverty and lifting the living standards of the Vietnamese people now appear to be reaching their limit. Poverty is both a cause and a consequence of disasters and Viet Nam's increasing vulnerability to disasters and climate change, and persistent challenges in reducing poverty and ensuring sustainable development make this nexus particularly important in the Vietnamese context.

The Central Coastal region is one of the most vulnerable to disasters and climate change in the country. In the context of the mid-year Consultative Group meeting held in Quang Tri, this paper focuses on the nexus between sustainable poverty reduction and disaster risk management and climate change adaptation, in particular in the Central Coastal region of Viet Nam. The paper highlights main policy messages, drawing on UN experiences providing programme and policy support to the Government in the Central Coastal region, and suggests main policy implications. The main messages highlighted by the paper are as follows.

While Viet Nam has been very successful to date in generating growth and reducing poverty, characteristics of poverty and vulnerability are now changing with chronic poverty becoming more entrenched and new forms of poverty emerging. Vulnerability to shocks is of particular concern for Viet Nam given its susceptibility to hazards and climate change. New ways of measuring poverty and vulnerability, including multi-dimensional poverty measures, rapid impact monitoring and dynamic poverty studies are required to better reflect and respond to these changes.

Increased population mobility is a feature of Viet Nam's development, and while most migrants move for economic reasons in search of employment and improved livelihoods, push factors including disasters and climatic events also play a role. Migration can be considered as an adaptive strategy in response to shocks of any origin, including hazards and climate change. While it offers significant opportunities migration can also exacerbate vulnerabilities both for those who migrate for work and those left behind. Rapid urbanization also contributes to vulnerabilities including exposure to waste and water pollution, flooding and other hazards and the risk of communicable diseases. Priority policy responses include better integration of migration in planning and urban design, and removal of remaining barriers to access to social protection and social services for migrant workers.

The nexus between poverty, disasters and climate change is well recognised globally. Disasters and climate change undoubtedly have a disproportionate impact on the poor and vulnerable given their unequal access to assets, resources and services. The poor and vulnerable, including women, the elderly and children are most affected. Yet evidence in the Vietnamese context remains limited. While the average annual economic impact of disasters is significant at between 1.3-1.5 percent of GDP; the actual costs are likely to be considerably higher, in particular for households and SMEs. Impacts on livelihoods, health and nutrition and living standards are also likely to be underestimated. Provinces in the Central Coast region are particularly vulnerable to hazards and climate change impacts and are also experiencing persistent poverty in particular among ethnic minority groups. Analysis undertaken for the paper shows a correlation between risk of hazards including floods, storms, whirlwind and droughts and poverty. Higher hazard risk is also correlated with lower levels of human development.

Public investment reform is one of the main priorities for macro-economic restructuring. Reform of public investment is important to not only ensure greater efficiency, but also to free up resources for social expenditure. At present however certain planning and investment decisions appear to be exacerbating vulnerability; hydropower projects in the Central Coastal region are one example. Ensuring a better balance between environmental and social impacts and economic growth is a pre-requisite for equitable growth and sustainable development. Achieving this will require stronger economic governance and more effective public management and oversight of investment decisions. In this regard it is a positive sign that many of the provinces in the region score highly on the Governance and Public Administrative Performance Index (PAPI) despite high levels of hazard risk and remaining challenges associated with persistent poverty.

Viet Nam has made significant strides in responding effectively to disasters and climate change, in particular in disaster preparedness and immediate post-disaster relief. Significant funding gaps exist for longer term recovery and reconstruction however, and greater investment in disaster risk financing is required. Community based approaches to disaster risk management, while now benefitting from more sustainable longer-term Government funding, require strengthening and coordinated implementation in partnership with non-Government actors. In addition, disaster risk management needs to be better integrated into social protection policies and programmes, in order to promote resilience and reduce vulnerability, protecting people's livelihoods as well as their lives. A comprehensive, integrated and coordinated approach to social protection is needed to reduce vulnerability to shocks, protect people throughout the life-cycle, and alleviate socio-economic inequalities and disadvantage. This is all the more important given the likelihood of continued vulnerability to economic and environmental shocks in Viet Nam.

Finally, while policies and programmes are in place to reduce poverty, provide social protection and respond to disasters and climate change, challenges remain in ensuring an integrated and coordinated response to policy and programme design and implementation. This undermines the effectiveness and efficiency of national and sub-national responses. Greater investment is required in disaster risk reduction, poverty reduction and social protection; requiring a re-ordering of Government priorities and greater efficiency of public investment. A comprehensive, integrated approach is also needed to broaden coverage and increase the level of assistance as well as to extend support and assistance to vulnerable groups that are currently excluded, such as migrants, the near poor and informal workers. In addition, in order to boost effectiveness, policies and programmes must be better adapted to the specific needs of different localities and socio-economic groups.

As a new middle-income country, Viet Nam is changing rapidly, and is experiencing new challenges such as emerging forms of poverty and inequality, disasters and climate change. The full extent of future hazards and climate change impacts is uncertain. More effective and integrated planning and implementation, greater coordination of efforts between different players at national and sub-national level, a modern, universal social protection system that can protect citizens from shocks of any origin, and strengthened community based responses and engagement can help Viet Nam to meet and manage this uncertainty more effectively while continuing to improve the lives and living standards of all Vietnamese people.

INTRODUCTION

Viet Nam's priorities for sustainable poverty reduction, social protection, and disaster risk reduction and climate change are set out in the SEDP 2011-2015. The SEDP recognises that *"natural disasters and epidemics are forecast to change in a complex manner [and that] climate change, pollution and disasters will negatively impact the development of the country"*, and sets out the aim of *"continuing with the programmes of poverty reduction in the light of sustainable development"*; *"developing the diverse social welfare that is capable of protecting all the members in the society, especially the weak and vulnerable ones, from constraints caused by market-economy related risks and other social risks"*; and *"taking initiative to effectively respond to climate change"*.¹

At present, the Government's response to these issues is addressed in distinct sector-specific policies and programmes, which are developed and implemented by the different designated Government Ministries and agencies responsible. Poverty reduction, social protection and disaster and climate risks are often considered and discussed in isolation as a result. But policy silos do not reflect the reality that in the lives of Vietnamese people, disasters and climate change, poverty, and lack of access to social protection and safety nets are intimately interlinked and mutually reinforcing. This paper seeks to contribute to the discussion of these issues, by focusing on the linkages between sustainable poverty reduction, social protection, and an effective response to disasters and climate change.

The paper was prepared as an input to the Mid Year Consultative Group Meeting, held in Quang Tri, in June 2012. The paper discusses the nexus between sustainable poverty reduction and 'natural'² disaster risk management with a particular focus on the experience of Viet Nam's Central Coastal region and its fourteen provinces which range from Thanh Hoa in the north to Binh Thuan in the south.

The paper presents UN policy messages, drawing on available evidence and research in Viet Nam and in the Central Coastal area; together with lessons learned from UN supported initiatives in this part of Viet Nam; and highlights suggested policy implications. The paper is not designed to be comprehensive but rather to highlight main themes and issues emerging from UN supported analysis and intervention in the field of poverty reduction, social protection, and disaster risk management.

¹ Ministry of Planning and Investment 2011 *Draft Five-Year Socio-Economic Development Plan 2011-2015* Unofficial Translation, October 2011. MPI, Hanoi

²While the term 'natural' disasters (*thien tai*) is in common usage in Viet Nam, throughout this paper we have preferred the use of the term *tham hoa* as a disaster only occurs when a community or society has high vulnerabilities and low capacities and thus cannot respond to or recover from, the impacts of a hazard. The vulnerability and capacity here are not "natural" but are rooted in the power, socio-economic, culture and ethnicity status of individuals and communities. However, there are 'natural hazards'. The point that we would like to emphasise here is that much can be done to reduce disaster risks, i.e. vulnerabilities, in order to prevent disasters from happening. *"Strictly speaking, there is no such thing as a natural disaster, but there are natural hazards, such as cyclones and earthquakes. A disaster takes place when a community is affected [or overwhelmed] by a hazard. In other words, the impact of the disaster is determined by the extent of a community's vulnerability to the hazard."* Twigg, J., 2004 Good Practice Review, Humanitarian Practice Network, Disaster Risk Reduction: Mitigation and preparedness in development and emergency programming, Overseas Development Institute, UK

The following main messages are highlighted in the paper:

1. In Viet Nam's rapidly changing context, new forms of vulnerability and poverty are emerging, requiring new approaches to understanding, responding to and measuring poverty and vulnerability.
2. Viet Nam is characterised by increasing population mobility, which is driven in part by disasters and climate change, contributes to vulnerability and requires new forms of services and support.
3. Poverty is both a cause, and a consequence of disasters. However, a better understanding of the nexus between poverty and natural disasters is needed, including the impact of such disasters on people's livelihoods, health, living standards and opportunities.
4. At present, certain investment and planning decisions appear to be exacerbating vulnerabilities, including in the North Central area and Coastal areas, requiring improved governance of investment decisions.
5. Currently, while Viet Nam performs well in terms of disaster relief, a more holistic approach to disaster risk management and climate change adaptation is not yet mainstreamed into social protection and environmental policies and initiatives. Viet Nam needs to prioritize promoting resilience and reducing vulnerability to shocks in addition to boosting preparedness for disaster relief.
6. Greater investment is needed in holistic, needs based national and local policies and systems, with adequate financing, for sustainable development, poverty reduction, social protection and disaster risk management.

Some definitions

Social protection: all initiatives that transfer income or assets to the poor, protect the vulnerable against livelihood risks, and enhance the social status and rights of the marginalized. Overall objectives of social protection are to extend the benefits of economic growth and reduce social, environmental and economic vulnerability of poor and marginalized people.³

Vulnerability: the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.⁴ Vulnerability also captures the factors that make people likely to become poor or fall deeper into poverty over time. Poverty and vulnerability are related but not the same. Poverty reflects current assets or capabilities, while vulnerability is a more dynamic concept concerned with the factors that determine potential future poverty status. Vulnerability considers both an individual's current capabilities and the external factors that they face, and how likely it is that this combination will lead to changes in their status.

Poverty: the total absence of opportunities, accompanied by high levels of undernourishment, hunger, illiteracy, lack of education, physical and mental ailments, emotional and social instability, unhappiness, sorrow and hopelessness for the future. Poverty is also characterized by a chronic shortage of economic, social and political participation, relegating individuals to exclusion as social beings, preventing access to the benefits of economic and social development and thereby limiting their cultural development.⁵

Resilience: the ability of a system, community or society exposed to shocks or hazards to resist, absorb, accommodate to and recover from the effects of a shock or hazard in a timely and efficient

³Davies, M. [et al] 2009 'Climate Change Adaptation, Disaster Risk Reduction and Social Protection' pp 201-217 in OECD *Promoting Pro-Poor Growth: Social Protection*, OECD, Paris

⁴UNISDR 2009 *UNISDR Terminology on Disaster Risk Reduction*, UNISDR, Geneva

⁵ Blanco, R.O. 2002 'How we define poverty. (Eradicating Extreme Poverty and Hunger). *UN Chronicle* 1 December 2002. Note that many alternative definitions of poverty exist. This one is included because it speaks to both material and non-monetary deprivations.

manner including through the preservation and restoration of essential basic structures and functions.⁶

Disaster risk management: the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.⁷

Climate change adaptation: The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.⁸

MAIN POLICY MESSAGES

1. Poverty is both a cause and a consequence of disasters. Disasters and climate change have a disproportionate impact on the poor and vulnerable given their unequal access to assets, resources and services. Poverty also contributes to hazards and climate change impacts by increasing people's vulnerability to shocks and reducing their capacity to respond and cope with hazards. Viet Nam's increasing vulnerability to disasters and climate change, together with persistent challenges in reducing poverty and ensuring sustainable development make this nexus particularly important in the Vietnamese context.
2. The Central Coast Region is one of the most exposed to hydro-meteorological hazards⁹ and the potential impacts of climate change in the country.¹⁰ Specific environmental vulnerabilities experienced in the region include increased rainfall variability, incidence of storms and periods of drought. Socio-economic vulnerabilities in the region include the large numbers of people who are dependent on rain-fed agriculture and on coastal fisheries and aquaculture. High levels of ethnic minority poverty and deprivations in living standards persist in a majority of provinces in this region. Both lowland, coastal areas and upland areas have been exposed to periodic flooding and drought conditions in recent years. Droughts and flooding have multiple impacts on communities, including disruption to agriculture, crop and livestock production, loss of jobs and incomes, the withdrawal of children from school, and health problems in some localities. Due to dry climatic conditions, and the scarcity of underground water resources, salinization is a major problem affecting water supply for both domestic use and agriculture in lowland areas.
3. The specific context of the Central Coastal region underscores the importance of considering the linkages between poverty reduction and disaster risk management in policy and programme responses. The following main messages are highlighted by this paper.

⁶UNISDR 2009 *UNISDR Terminology on Disaster Risk Reduction*, UNISDR, Geneva

⁷Ibid

⁸ IPCC 2007 Fourth Assessment Report of the Intergovernmental Panel on Climate Change Cambridge University Press, Cambridge and New York

⁹Viet Nam is predominantly affected by hydro-meteorological hazards –processes or phenomenon of an atmospheric, hydrological or oceanographic nature that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Hydro-meteorological hazards in Viet Nam include typhoons, floods including flash floods, drought, thunderstorms, hailstorms, whirlwinds, coastal storm surges, heat-waves and cold spells. Hydro-meteorological conditions also can be a factor in other hazards, such as landslides, forest fires and epidemics.

¹⁰ World Bank 2010 *The Social Dimensions of Adaptation to Climate Change in Viet Nam*. World Bank, Hanoi

I. VIET NAM'S CHANGING CONTEXT: NEW FORMS OF POVERTY AND VULNERABILITY ARE EMERGING

Viet Nam has been successful in rapidly reducing poverty and generating steady economic growth and has attained lower middle income status.

4. Viet Nam's poverty reduction story is well known. The country has experienced rapid economic growth, even in the period following the economic crisis, with growth rates predicted to be at 5.6 percent in 2012 and rising again to 6.3 percent in 2013.¹¹ Viet Nam attained middle-income country status in 2009, with annual Gross National Income (GNI) per capita of US\$1,020 in 2009, and \$1,160 in 2010.¹²
5. Against this backdrop of rapid economic growth, Viet Nam has achieved a rate of poverty reduction which saw it ranked sixth globally for both absolute and relative progress towards achieving Millennium Development Goal (MDG) 1 in 2010.¹³ The official income poverty rate fell from 18.1 percent in 2004 to 10.7 percent in 2010.¹⁴ Consumption poverty fell from 37.4 percent in 1998 to 14.5 percent in 2008.¹⁵ However, poverty incidence is likely to be underestimated by official poverty lines, which are set low. Based on the 2010 Viet Nam Household Living Standards Survey the revised income poverty rate was 14.2 percent in 2010: 6.9 percent in urban areas and 17.4 percent in rural areas.¹⁶ The General Statistics Office of Viet Nam (GSO) and the World Bank have developed a new poverty line designed to better reflect contemporary living standards, estimating a national poverty rate of 20.7 percent in 2010: 27 percent of rural households and 6 percent of urban households.

Characteristics of poverty and vulnerability are changing

6. Yet despite this positive overall national picture, Viet Nam now faces challenges which may undermine its hard-won progress towards sustainable poverty reduction and continued development. These include recurrent periods of macro-economic instability and high inflation brought about by weaknesses in the current growth model, rapid socio-economic change including future population ageing, labour market pressures brought about by demographic transition, accelerating rates of migration and urbanization, and increased incidence and unpredictability of natural hazards. According to the Intergovernmental Panel on Climate Change (IPCC), Viet Nam is predicted to be one of the countries most adversely affected by climate change, as a large proportion of the population, infrastructure and economic production - including irrigated agriculture - are located in coastal lowlands and deltas.
7. Macro-economic instability remains a concern and stabilizing the economy is a priority of the Government. Structural reforms are needed to promote equitable, sustainable growth, and create greater fiscal space in the future. Recurrent fiscal deficits and relatively high debt levels have reduced the Government's fiscal space to mitigate economic and environmental shocks in the future. Limited fiscal space is also making it more challenging to initiate longer-term structural reforms which would strengthen the economy's resilience and is constraining

¹¹IMF, World Economic Outlook Database, April 2012, accessed at: www.imf.org

¹²World Bank Data accessed at: <http://data.worldbank.org>

¹³Overseas Development Institute (ODI) 2010 *2010 Millennium Development Goals Report Card: Measuring Progress Across Countries*, London ODI: 9

¹⁴General Statistics Office (GSO) *2012 Result of the Viet Nam Household Living Standards Survey 2010*, Hanoi GSO: 20

¹⁵VASS 2011 *Poverty Reduction in Vietnam: Achievements and Challenges*. VASS, Hanoi: 1

¹⁶Ibid. These poverty rates (revised official 2010 poverty line) are used throughout this paper.

the Government's options in terms of facilitating the adjustment costs to move the economy onto a more sustainable, greener growth path and to allocate sufficient resources for a comprehensive social protection system.

8. Against this backdrop, characteristics of poverty and vulnerability are changing.¹⁷ Chronic poverty appears to be becoming entrenched, with very significant disparities persisting between regions and socio-economic groups, in particular concentrated among ethnic minorities and remote populations. In 2008, the poverty rate among the Kinh majority was 9.0 percent compared to 50.3 percent for ethnic minority communities. The rate of poverty reduction among ethnic minorities has been much slower than for the Kinh majority: poverty fell from 53.9 percent among the Kinh majority in 1993 to 9.0 percent in 2008; but only 86.4 percent to 50.3 percent among ethnic minorities.
9. Poverty rates among regions also vary considerably, ranging from 2.3 percent in the south east to 29.4 percent in the northern midlands and mountainous areas based on the new 2010 official poverty line. Poverty incidence also varies widely between provinces, from 0.3 percent in Ho Chi Minh City, to 50.8 percent in Dien Bien.
10. Specific population groups, such as single widows, the elderly, and people living with HIV are also more vulnerable to living in poverty. More female headed households than male headed households are in the poorest quintile; while 15.7 percent of those aged 80 and over and 14.4 percent of women over 60 are poor according to official poverty lines.¹⁸ In addition, women are more likely to be asset poor than men: only one in four women aged 31-45 living in households with land title certificates have their names included, limiting their ability to access loans.¹⁹ Poverty and HIV status are strongly correlated with households not affected by HIV earning 1.3 times the annual income of HIV affected households.²⁰ One third of families with a person with disability are estimated to live in poverty.
11. New forms of poverty are emerging, including among migrants and people living in urban areas. The 2009 Urban Poverty Survey found that while people living in Hanoi and Ho Chi Minh City did not experience high levels of income poverty, they did experience deprivations in access to social security, housing, and education. In both cities, migrants experienced greater deprivations than did non-migrants, and were particularly likely to experience social exclusion.²¹ Similarly, analysis of 2009 Census data shows only 44 percent of children of inter-provincial migrants aged 11-18 are still in school, compared to 75 percent of non-migrant children.
12. Viet Nam is also experiencing rising inequality. The Gini coefficient²² was 0.433 in 2010, and the gap between the monthly average per capita income of the top and bottom quintiles rose from 8.1 in 2002 to 9.2 in 2010.²³ While incomes are rising overall, and Viet Nam's middle

¹⁷World Bank and VASS 2012 *Viet Nam Poverty Assessment Update, Volume 1 Outline*.

¹⁸World Bank 2011 *Viet Nam Gender Assessment*. World Bank, Hanoi; UNFPA 2011 *The Aging Population in Viet Nam: Current status, prognosis and possible policy responses*. UNFPA, Hanoi. Note that intra-household poverty and allocation of resources are not accounted for in household poverty data; with the result that female poverty, including in male-headed households, is overlooked.

¹⁹World Bank 2011 *Viet Nam Gender Assessment*

²⁰Parliamentary Committee for Social Affairs and UNDP 2009 *Impact of HIV/AIDS on household vulnerability and poverty in Viet Nam*, Hanoi UNDP: 55

²¹UNDP, Hanoi People's Committee, Ho Chi Minh City People's Committee 2010 *Urban Poverty Survey*. UNDP, Hanoi: 28

²²The Gini-coefficient of inequality is the most commonly used measure of inequality. The coefficient varies between 0, which reflects complete equality and 1, which indicates complete inequality (one person has all the income or consumption, all others have none).

²³General Statistics Office (GSO) 2012 *Result of the Viet Nam Household Living Standards Survey 2010*, Hanoi GSO: 21

class is growing, the country's GNI per capita remains well below that of Asia and below the average for lower middle income countries.²⁴ According to the ADB, 49.3 million people moved into the 'middle class' between 1990 and 2008. However, the majority of the so-called middle-class is living on just \$2 to \$4 per capita a day, making them vulnerable to falling back into poverty.²⁵

13. Poverty is increasingly a dynamic phenomenon. With so many people living close to the poverty line a substantial proportion of the population is vulnerable falling back into poverty. Economic and environmental shocks thus have the potential to reverse hard won gains in growth and poverty reduction.

Multi-dimensional approaches to poverty and vulnerability are needed to better understand and reflect these changes.

14. Poverty is not a matter of income alone but rather is both a result and a reflection of interlinked deprivations in living standards, opportunities and outcomes. Multi-dimensional poverty measures help to capture this broader conception of poverty. For example, the child poverty rate developed by UNICEF and the Ministry of Labour, Invalids and Social Affairs (MoLISA) includes a multi-dimensional measure of child poverty drawing on 7 dimensions of deprivation: according to this measure, 29.6 percent of children were living in multi-dimensional poverty in 2010: 22.6 percent of Kinh majority children and 60.3 percent of ethnic minority children; and 15.9 percent in urban areas and 34.5 percent in rural areas.²⁶ The new multi-dimensional poverty index introduced in the 2011 National Human Development Report found a multi-dimensional poverty rate of 23.3 percent in 2008, compared to the monetary poverty rate of 13.4 percent.²⁷ The rate of multi-dimensional poverty was much higher in rural areas and among ethnic minorities: 30 percent of those in urban areas were multi-dimensionally poor compared to 6 percent in urban areas, while 61.9 percent of ethnic minority groups were multi-dimensionally poor compared to 17.4 percent of the Kinh majority.
15. A multi-dimensional approach to poverty analysis highlights different and interconnected aspects of deprivation and disadvantage in living standards, access to basic social services, and opportunities. Some of these deprivations remain acute in Viet Nam. For example rates of stunting among children under five remain high at 29.3 percent: 38.7 percent for the poorest quintile and 12.9 percent for the richest quintile. The stunting rate is 23.2 percent for children belonging to the Kinh majority, compared with 55.1 and 52.6 percent for H'mong and Bana ethnic minority children respectively.²⁸ A high proportion of ethnic minority groups continue to lack access to clean water: 68.4 percent compared to 95.3 percent of the Kinh majority in 2011. 23.1 percent of ethnic minority children aged 5-14 years are engaged in child labour, compared to 7.1 percent of Kinh majority children. In 2011, the under-five mortality rate was 39 per 1,000 for ethnic minority children compared to 12 per 1,000 for Kinh

²⁴World Bank Data accessed at: <http://data.worldbank.org>

²⁵ADB estimates 52 percent of the Vietnamese population was middle class in 2006, i.e. living on \$2-20 per capita per day. 68 percent were living on \$2 to \$4 per capita per day. In other words they were lower middle class, living very close to the poverty line. See ADB 2010 *Key Indicators for Asia and the Pacific 2010*. ADB, Manila. Viet Nam's official poverty line is estimated to be \$1.10 per day (2005 PPP). See World Bank and VASS 2012, *2012 Viet Nam Poverty Assessment Update Volume 1 Outline*.

²⁶ General Statistics Office (GSO) 2012 *Result of the Viet Nam Household Living Standards Survey 2010*, Hanoi GSO: 438

²⁷UNDP 2011 *Social Services for Human Development: Viet Nam Human Development Report 2011* UNDP, Hanoi: 61

²⁸National Institute of Nutrition – Ministry of Health (MoH) and UNICEF (2012) *Summary Report: General Nutrition Survey 2009-2010*, MoH, Hanoi: 2

majority children.²⁹ Thus achievement of the MDGs remains uneven, with ethnic minorities and remote populations lagging behind.

16. Most measures of poverty however, such as the MDGs, multi-dimensional poverty measures and the Human Development Index only consider current poverty of a household with no regard for vulnerability, that is, whether a household may fall into poverty in the future. With many Vietnamese households facing high income volatility due to recurrent economic crises, disasters and climate change, a household's currently observed poverty status is in many cases not a reliable indicator of their vulnerability to poverty. With a high clustering of households around the national poverty line, the risk of a household of falling below the poverty line is high. To be able to measure vulnerability to poverty and the impact of shocks would require a shift towards more frequent data collection and rapid impact monitoring of the impact of shocks and crises.
17. Existing social protection schemes focus primarily on assisting the structurally poor, those already living in poverty before a crisis or a natural disaster. The near poor, who have often just managed to move above the poverty line, may lack the resilience to cope, if hit by a crisis or a succession of crises, and slide back into poverty. Social protection programs need to lift people out of chronic poverty and provide risk insurance against returning into destitution. Understanding vulnerability is therefore important for the design of social protection and crisis mitigation schemes irrespective of the nature of these shocks.

UN Experience: Rapid impact monitoring of shocks

Since 2009, UNICEF and UNDP, with the involvement of number of other development partners (Irish Aid, Ford Foundation, Oxfam), has supported the Center for Analysis and Forecasting (CAF) at the Viet Nam Academy of Social Sciences to implement a system to detect the social impact of crises in a timely manner. The methodology, called Rapid Impact Monitoring (RIM), is geared towards identifying and understanding trends, mechanisms, perceptions and strategies, rather than on quantifying the extent and magnitude of the impact of various economic shocks so far. Coupled with the purpose of disclosing this information in close to real-time, it explains the adoption of a qualitative methodology of data collection at a selected number of sentinel sites, which can be adjusted based on the nature of the shock, with a focus on populations that are expected to be most vulnerable and hardest hit.

The initial rounds of RIM were conducted in March and August 2009. These were implemented in five provinces, comprising 11 sentinel sites. The sample included two locations in rural areas and three locations in urban or peri-urban areas. Although many of the sites have remained the same, some original ones have been replaced by newer ones in 2010 and 2011 given the changing nature of the crisis – from the effects of the global economic crisis to those arising from structural weaknesses in the domestic economy. Hence, the 2010 and 2011 rounds have paid greater attention to rural and mountainous areas – with a high proportion of ethnic minority populations – engaged in largely non-export agricultural activities.

The 2010 and 2011 rounds of RIM illustrated that while initial recovery from the global financial crisis provided some respite in 2010, continued stress on households and migrant workers due to high inflation and an uneven economic situation since then has tested their ability to cope. Adverse coping strategies such as cutting down on the consumption of a balanced diet, working extra hours, selling off assets, and unsustainable borrowing have been observed recently. Moreover, the Government's

²⁹ GSO, MoH and MoLISA 2011 *Multiple Indicator Cluster Survey 2010-2011* GSO, Hanoi

response in terms of social protection to mitigate the impact of the crisis on the poorest and most vulnerable families and their children is not well understood among local policymakers and officials, and has therefore suffered from patchy implementation.

Although originally devised as a system to monitor the social impacts of the global financial crisis, one of RIM's main hallmarks has been its flexibility. This was demonstrated when the methodology was adjusted to monitor the impact of domestic macroeconomic instability in 2010 and the impact of Resolution 11 in alleviating this in 2011. Rapid impact monitoring could also be used to generate real-time information in a light manner to reveal the social impacts of disasters and climate change. Adjustments in the sentinel sites, focusing on those most vulnerable to disasters, and including new and more relevant indicators in such a context could make this possible.

Vulnerability and exposure to hydro-meteorological hazards and the impacts of climate change and disasters is increasing

18. Vulnerability to shocks is of particular concern for Viet Nam. Due to its location in the tropical monsoon area of South East Asia and also to its geography and topography, the country is one of the most hazard-prone areas in the Asia-Pacific Region, susceptible to almost every type of hazard - among which hydro-meteorological hazards are the most common.³⁰ Of these, typhoons and floods are the most frequent and devastating. It is estimated that the country is hit by 6.5 typhoons and tropical storms per year; between 1990 and 2010, there were 74 flood events. Severe droughts, saline water intrusion, landslides and forest fires also impact the country.³¹
19. As most of the population is living in low-lying river basins and coastal areas, more than 70 percent are estimated to be exposed to risks from multiple natural hazards. From 1990-2011, Viet Nam suffered average annual losses in human life of 441 people.³² According to the German watch climate risk index of most countries of the world, which includes GDP losses (in purchasing power parity, PPP) and deaths as a result of climatic extremes, such as typhoons, heavy rainfall, and drought, Viet Nam suffers average annual GDP (PPP)³³ losses of USD 1.9 billion (or 1.3 percent of GDP).³⁴
20. The Ministry of Natural Resources and Environment (MoNRE)³⁵ asserts that there will be increased unpredictability and intensity of typhoons, an increase in extreme rainfall, temperatures, flooding and droughts, due to climate change in Southeast Asia, which may lead to increased threats to people's livelihoods. According to a new index on vulnerability to the impacts of climate change over the next 30 years, Viet Nam is ranked 23rd out of 193 countries and is identified as one of 30 "extreme risk" countries.³⁶ Rapid socio-economic

³⁰Oanh Long Nhu, Nguyen Thi Thu Thuy, Ian Wilderspin, Miguel Coulier, Viet Nam, March 2011 *A preliminary analysis of flood and storm disaster data in Viet Nam*. <http://www.ccfsc.gov.vn/showpublication.aspx?pcdid=403>

³¹Central Committee for Flood and Storm Control data 2012

³²Ibid

³³Note: Viet Nam's GDP (PPP) in 2011 was USD\$300 billion. See: International Monetary Fund – World Economic Outlook Database April 2012 at www.imf.orgData for 2011.

³⁴Sven Harmeling (2010) *Global Climate Risk Index 2011. Who suffers most from extreme weather events? Weather-related loss events in 2009 and 1990 to 2009*. Bonn/Berlin: Germanwatch

³⁵See MoNRE 2009 *Climate change, sea level rise scenarios for Viet Nam*, Ministry of Natural Resources and Environment, Hanoi, Viet Nam.

³⁶The Maplecroft Climate Change Vulnerability Index (CCVI) evaluates 42 social, economic and environmental factors to assess national vulnerabilities across three core areas, including (1) exposure to climate-related natural disasters and sea-level rise; (2) human sensitivity, in terms of population patterns, development, natural resources, agricultural dependency and conflicts; and (3) future vulnerability considering the adaptive capacity of a country's Government and infrastructure to address climate change effects. The countries most at risk are characterized by high levels of poverty, dense populations, exposure to climate-related events; and their reliance on flood and drought prone agricultural land. *World's fastest growing populations increasingly vulnerable to the impacts of climate change – 4th global atlas reports*. Maplecroft press release 26th October 2011 http://maplecroft.com/about/news/ccvi_2012.html.

development, population growth, migration and urbanization, pressures on natural resources and climate change impacts have increased the exposure and vulnerability of the population to multiple hazards and consequently, to disaster risks. Exposure to multiple shocks of economic, environmental and idiosyncratic origin is increasing as a result.

21. Salinity is a specific challenge in the Mekong Delta, where salinity intrudes up to 30-40 km inland. Climate change scenarios prepared by the Ministry of Natural Resources and Environment (MoNRE) estimate that, without major action such as dyke reinforcements and improved drainage, a one metre rise in mean sea levels would threaten to inundate 30 percent of Viet Nam's Mekong Delta, rising to 97 percent during flood season while during the dry season saline water intrusion could affect over 70 percent of the area unless a range of measures are taken, including infrastructure construction and climate proofing.³⁷
22. Erosion of Viet Nam's coastline is one of the most frequently-cited concerns about rising sea levels, affecting much of the country's 3,200 kilometres of coast. Saline water intrusion has long been a problem but as the sea level rises the situation is worsening. Gradual trends in increasing saline water intrusion into river mouths and estuaries are already creating severe stress on household water supply and agriculture-based livelihoods in coastal areas, affecting rice and other crops. Lack of access to freshwater for drinking, cooking, bathing and agriculture is already extremely serious in some southern provinces such as Ben Tre. However, diversification into for example mixed rice, shrimp and mangrove culture systems can be a profitable response to these increasing challenges, although shrimp farming and agriculture remain vulnerable to floods and storms.

Policy implications:

- ❖ *Ensure policies and programmes are evidence based and keep pace with and respond to the changing context and profile of poverty and vulnerability in Viet Nam.*
- ❖ *Institutionalize rapid impact monitoring and use of multi-dimensional poverty measures in order to better capture impacts of economic and environmental shocks and non-monetary deprivations.*
- ❖ *A better understanding of poverty dynamics and movement in and out of poverty is needed, including the main factors which cause households to fall (back) into poverty.*

³⁷ Six global socio-economic scenarios associated with certain levels of future greenhouse gas emissions, and consequently more or less severe climatic changes were detailed in the Fourth Assessment by the Intergovernmental Panel on Climate Change (IPCC 2007). Of these, MoNRE has chosen three scenarios for local use; the B2 medium emissions scenario is officially proposed as the main basis for Vietnamese climate change projections and planning. See MoNRE 2009 *Climate change, sea level rise scenarios for Viet Nam*, Hanoi, Viet Nam.

II. POPULATION MOBILITY, CLIMATE CHANGE AND DISASTERS AND VULNERABILITY

Viet Nam is experiencing fast-paced migration and urbanization

23. People in Viet Nam are on the move. 2009 census data shows that internal migration rates rose from 4.5 million people in 1999 to 6.6 million people in 2009 and both urban to urban and rural to urban migration rates doubled over this period.³⁸ Migration is the most significant factor in rapid urbanization, and contributed an estimated 57 percent to overall urban growth. Viet Nam's urban population is predicted to grow to up to 35.5 million people by 2019.³⁹ Migration in Viet Nam is increasingly feminized, with women accounting for half of internal migrants. Rates of female migrants have steadily increased between 1989 and 2009. Most migrants are also young, with an average age of 25 years – 23 years for rural to urban migrants. An estimated 12 percent of Viet Nam's population will be internal migrants by 2019.⁴⁰
24. According to the 2009 census, the Central coast region experienced the greatest level of out-migration of all Viet Nam's regions between 2004 and 2009. While the level of in-migration remained constant between 1999 and 2009 censuses, the level of out-migration rose considerably. Rural areas experienced greater population losses than urban areas. The major destination region was the South-east. Unsurprisingly Da Nang saw the highest rate of in-migration of all provinces in the region at 10 percent while in-migration rates in provinces such as Thanh Hoa and Quang Ngai were less than 1 percent. Inter-district migration within provinces was highest in Da Nang and Nghe An, while intra-district migration was highest in Da Nang, Khanh Hoa, Thua Thien Hue and Binh Dinh. Migration rates for women were higher than for men, in particular among intra-district migrants.⁴¹
25. The 14 provinces in the Central Coastal region account for 40 percent of the 88,298 workers who migrated internationally in 2011. Just three provinces, Thanh Hoa, Nghe An and Ha Tinh, accounted for 32 percent of international migration. Nghe An alone saw 13,364 people migrate for work in 2011. Provinces such as Ninh Thuan and Binh Thuan had few international migrants as shown in Table 1.

³⁸ GSO 2011a *Viet Nam Population and Housing Census 2009. Migration & Urbanisation in Viet Nam: Patterns, Trends and Differentials*. GSO, Hanoi

³⁹ GSO 2011b *Population projections for Viet Nam 2009-2049*. GSO, Hanoi: 27

⁴⁰ GSO 2011a *Viet Nam Population and Housing Census 2009. Migration & Urbanisation in Viet Nam: Patterns, Trends and Differentials*. GSO, Hanoi

⁴¹ Ibid

Table 1: Internal and international migration trends in the Central Coastal region (in 2009 and 2011)

Province	In-migration 2004-2009	Out-migration 2004-2009	Outgoing International Labour Migrants 2011	Male International Labour Migrants 2011	Female International Labour Migrants 2011
Binh Dinh	18,527	71,765	489	387	102
Binh Thuan	15,826	39,746	40	30	10
Da Nang	81,323	18,226	387	351	36
Ha Tinh	13,111	83,333	5,648	2,989	2,659
Khanh Hoa	21,903	28,891	420	328	92
Nghe An	28,353	146,206	13,364	8,018	5,346
Ninh Thuan	5,684	22,148	38	26	12
Phu Yen	7,980	29,434	367	278	89
Quang Binh	7,546	43,390	1,712	840	872
Quang Nam	15,503	66,002	400	265	135
Quang Ngai	8,343	62,788	1,556	753	803
Quang Tri	6,447	26,952	756	498	258
Thanh Hoa	19,993	218,272	9,920	6,952	2,968
Thua Thien Hue	26,974	47,977	250	194	56
North and South Central Coast	277,514	905,132	35,347	21,909	13,438
Whole Country			88,298	57,108	31,190

Source: GSO 2011 Migration and Urbanization in Viet Nam: Patterns, Trends and Differentials and UN Women and MoLISA

26. Migration has contributed significantly to poverty reduction in Viet Nam. An estimated 88.7 percent of households receive some form of remittance from international or internal migrants. 2007 estimates for the value of these remittances are as high as USD 5.5 billion.⁴² Lower income households are typically the most dependent on domestic remittances, which help to offset income shocks and even out consumption.⁴³

Migration is an adaptive strategy in response to shocks including climate change and disasters

27. The majority of Viet Nam's internal migrants move for economic reasons: to gain employment and improve living standards.⁴⁴ A burgeoning youth population, unable to secure employment in rural areas, is also driving increased population mobility, with around 900,000

⁴²Ibid: 41

⁴³Abella, M. and Duncanes, G. 2011 *The economic prospects of Viet Nam and what it means for migration policy*, ILO, Hanoi

⁴⁴UN in Viet Nam 2011 *Internal Migration: Opportunities and Challenges for Socio-economic Development in Viet Nam*: 23

new labour market entrants seeking work each year.⁴⁵ In addition to economic and demographic trends that are driving migration patterns in Viet Nam, changes in the natural environment are a significant factor in internal migration. Migration is both a coping strategy in response to shocks, including income and environmental shocks and a strategy for livelihood diversification. Indeed migration can be considered to be an adaptive strategy in response to shocks including hazards and climate change.⁴⁶ While migrants are more likely to cite economic reasons rather than disasters and climate change as the main reason for migration, it is not easy to separate push factors such as shocks and economic stresses, and pull factors such as opportunities available in urban areas. Migration as a result of disasters or climate change often has related economic determinants, whereby people move because their livelihood is no longer sustainable.⁴⁷

28. Seasonal, temporary and circular migration is likely to be under-recognised. These groups of migrants are typically not captured in major national surveys such as the Population Census and the Viet Nam Household Living Standards Survey. Non-permanent migration is a typical response to environmental degradation and other stressors, and includes farming in other locations, non-farm activities in periods where farm labour is less intensive and employment in urban areas.⁴⁸ For example, a 2009 UNDP and MONRE study⁴⁹ of coping strategies in response to climate change in Ha Tinh and Thua Thien Hue found that households use migration to diversify income sources and as a coping strategy in response to shocks. The collapse of a specific income stream, such as aquaculture, was often a main driver for the migration of a household member.
29. Migration by (largely young adult) household members in this study however left elderly and female household members who remained behind more vulnerable to disasters such as typhoons and floods often without male labour and support.⁵⁰ Indeed, a 2009 study by the UN and Oxfam in Viet Nam suggests that temporary out-migration tends to be a strategy adopted by men, and better off households. This is in contrast to Population Census data which shows higher rates of permanent migration among women, in particular intra-district migration. Male out-migration undoubtedly increases women's workload; including coping with hazards, often with more limited access to productive assets such as land, and (larger scale) credit.⁵¹

Migration offers opportunities but can also exacerbate vulnerability

30. Thus, while it offers opportunities, migration also contributes to increased vulnerability, for those who move and for those left behind. Rapid urbanization in Viet Nam is accompanied by very high levels of population density in urban areas. Averaging 259 people per square kilometre nationally, population density is as high as 1,926 people in Hanoi and 3,399 people in Ho Chi Minh City per square kilometre.⁵² Water and air quality have been steadily declining in major cities such as Ho Chi Minh City and Hanoi; with contamination levels in both above

⁴⁵UNFPA 2010 *Taking Advantage of the Demographic Bonus in Viet Nam*. UNFPA, Hanoi: 41

⁴⁶Davies, M. [et al] 2009 'Climate Change Adaptation, Disaster Risk Reduction and Social Protection' pp 201-217 in OECD *Promoting Pro-Poor Growth: Social Protection*, OECD, Paris: 2009

⁴⁷UN in Viet Nam 2011 *Internal Migration: Opportunities and Challenges for Socio-economic Development in Viet Nam*. UN in Viet Nam, Hanoi: 23

⁴⁸Nelson, V. 2010 *Climate Change and Migration: A framework for analysis*.

⁴⁹Parsons, M., Tran Viet Nga and Joanna White 2009 *Building Resilience: adaptive strategies for coastal livelihoods most at risk to climate change impacts in Central Vietnam*, UNDP and MONRE Hanoi

⁵⁰UN in Viet Nam 2009 *Viet Nam and Climate Change: A discussion paper on policies for sustainable human development*. UN in Viet Nam, Hanoi: 12; 43-44

⁵¹UN and Oxfam 2009 *Responding to climate change in Viet Nam: opportunities for improving gender equality*

⁵²GSO 2009 *Population Census 2009 Major Findings*. GSO, Hanoi: 36

those considered acceptable in both cities.⁵³ Of particular concern are the growth of urban slum areas which are particularly vulnerable to flooding and other hazards, as well as to waste and water pollution, and the risk of transmission of communicable diseases.

31. As noted earlier, migrants are also specifically vulnerable to socio-economic deprivations, including social exclusion and lack of access to social protection and social services. Often seasonal and short-term migrants are excluded from access to health and education services due to their registration status. Many young women and men who migrate are particularly vulnerable to economic and sexual exploitation and abuse; exposing them to health risks such as HIV transmission.⁵⁴ International migrant workers are particularly vulnerable to risks relating to exploitation and abuse while working abroad. The number of Vietnamese women working overseas in home based care and as domestic workers has increased: these women are particularly vulnerable to experiencing lack of personal safety and isolation.

UN experience: Adaptive livelihoods for vulnerable households in Hai Tien village, Thuan An town, Thua Thien Hue province

Targeting the most vulnerable households, in particular mothers with children who had been rescued from big cities, the FAO-Blue Dragon fisheries project “Small-scale brackish water fish cage culture with vulnerable households” was implemented in Ha Tien village in the coastal town of Thuan An, Thua Thien Hue province. Reliant on low incomes, many families sent their children to major urban centres such as Ho Chi Minh City to work as cheap labour, so that they could supplement the family’s earnings. A non-profit group Blue Dragon brought the children back to their families and provided them with educational support. However, unless the low-income status of their families’ was addressed, it was clear that these children would again face the risk of being sent back to the city. FAO developed a “TeleFood”⁵⁵ project to increase the income of these poor households, by providing them with inputs to start brackish water fish cage culture as a means to increase fish productivity and earn a continuous source of income.

From the end of 2009, the 12 households participating in the project were able to successfully cultivate brackish water fish in cages. The average annual output was 145.7 kilograms per family, generating an additional income of \$US584. On average, \$US451 was saved to cover recurring costs for the following crop, depreciation of the fish cage, and provide a source of contingency funds and family savings. As a result, households were able to generate increased income and access an additional source of food. Women participating in the project were accorded greater respect in the family, especially by their husbands, and women themselves developed higher self-esteem and were able to provide a more predictable and better environment for their children. The project was highly valued by local families and the local authorities and is likely to be replicated elsewhere in Viet Nam.

Policy implications

- ❖ *Viet Nam must now act to accord equal status to internal migrants and remove remaining barriers to equal access to social protection and social services, including health and education. Policies for international labour migration must address the specific needs of men and women migrating overseas for work, including provision of safe migration services.*

⁵³Dapice, D.J., Gomez-Ibanez and Nguyen Xuan Thanh 2010 *Ho Chi Minh City: The Challenges of Growth* Harvard Kennedy School and UNDP, Hanoi

⁵⁴UN in Viet Nam 2011 *Internal Migration: Opportunities and Challenges for Socio-economic Development in Viet Nam*.

⁵⁵TeleFood funded projects provide direct assistance to food-insecure communities. These small-scale projects help people increase their income, work more productively and either grow or purchase the food they need for a healthier life. See www.fao.org

- ❖ *Population mobility must be integrated and addressed in development and planning strategies. Increased access to employment and vocational training opportunities, in particular for young people and women in rural areas, is needed to stem the flow of out-migration and provide viable livelihood strategies.*
- ❖ *Give greater priority to promotion of sustainable, adaptive and resilient livelihoods for vulnerable, rural populations by building climate-resilient agriculture, fishing and aquaculture and the resilience of the livelihood resource base.*

UN experience: Joint Programme on Green Trade

The UN Joint Programme 'Green Production and Trade' works to increase income and employment opportunities for an estimated 4,800 poor farming and craft-producing households in Phu Tho, Hoa Binh, Thanh Hoa, and Nghe An. These provinces were selected due to (i) the high incidence of poverty, especially among ethnic minorities; (ii) the concentration of raw materials and local production of crafts; and (iii) the opportunity to build synergies with past and ongoing development activities. More than forty percent of the selected beneficiaries are considered as poor, based on the national poverty line of 400,000 VND per capita/month (about 0.6 US\$/day). The programme also supports some 50 companies that source raw material and crafts from households. The programme aims is to develop better integrated, pro-poor, and environmentally sustainable "green" value chains, enabling poor growers, collectors and producers to improve their products and link these to more profitable markets. Five UN agencies: UNIDO, FAO, ILO, and two non-resident agencies UNCTAD and ITC, participate in the Joint Programme.

The programme supports (re)planting and cultivation of raw materials, counteracting the overexploitation and depletion of valuable natural resources. For example, adopting more sustainable management of bamboo grown in forests in Nghe An contributes to the preservation of bamboo species and prevents soil degradation and landslides.

The programme also supports traditional craft trades, such as brocade production, which is practiced by most ethnic groups in the North Central Coast of Viet Nam. Brocade production is almost exclusively done by women and is handed down from mother to daughter over generations. For example, Hoa Tien village in Chau Tien commune, Quy Chau district, in Nghe An province is famous for its rich tradition of sophisticated weaving, embroidery techniques, and story-telling decorative patterns.

Traditional craft production by these disadvantaged ethnic groups is under threat as young women in the village are increasingly attracted to income-generating opportunities in larger cities or provincial towns, abandoning the trade to women producers aged 40 years and over. Brocade products, which are traditionally made from natural material (cotton or silk) grown and produced locally using natural dyes and traditional patterns are now being replaced by cheap synthetic fabric.

The Joint Programme aims to support the women in the community to increase their independence and income. A mulberry plantation has enabled the group to raise higher value 'white' silk cocoons; a natural dyeing unit is under construction; and traditional Thai patterns are being documented. Development of new products and market linkages have lead to increased sales and translated into a 25 percent increase in monthly household income.

III. A BETTER UNDERSTANDING OF THE NEXUS BETWEEN POVERTY AND NATURAL DISASTERS IS NEEDED

Vulnerability to poverty and hazards are closely interlinked.

32. Disasters occur when a shock or hazard exceeds the ability of the affected community or society to cope using its own resources. They are a result of the combined impact of the exposure to shocks or hazards, conditions of vulnerability (including poverty) already present and insufficient capacity to reduce or cope with the potential negative consequences. Poverty is thus both a cause, and a consequence of hazards and climate change. UN estimates suggest that between 1975 and 2000 globally over 94 percent of all people killed by disasters were living on low or lower-middle incomes: 68 percent were among the very poorest.⁵⁶ The poor are more vulnerable to such disasters as a result of lower adaptive capacity including less income and assets and more limited access to social, political, and cultural capital. Women, children, the elderly and poor ethnic minority households are most at risk. Poverty also increases pressure on the natural resource base, which in turn contributes to environmental stresses and natural hazards.
33. At the same time, the frequency and increasing unpredictability of hazards and climatic events exacerbates poverty, impacting on poor people's livelihoods, and increasing their vulnerability by weakening the resource and asset base as well as buffers such as common property resources including fisheries, forests and rangelands. Increases in extreme weather events and rises in the sea-level increase vulnerability by intensifying pressures on water availability, agriculture and degrading ecosystems. As noted above, hazards are increasingly a driver of rural-urban migration which puts pressure on urban centres and contributes to urban poverty. Health implications of disasters and climate change are also significant, with a disproportionate impact on the poor who lack access to potable water and sanitation, affordable health services, and resources to invest in health care. The combined shock of a disaster and injury, illness or mortality can drive households into poverty as a result of economic losses coupled with increased health expenditure.
34. Although different types of disasters and climate change impacts occur globally and affect different populations, commonly women, children and the elderly are disproportionately affected, suffering more during and after disasters. Often more women die than men as the direct and indirect result of disasters⁵⁷, are more affected by water shortages and are more likely to cut their food consumption. Women, who predominate in agriculture in Viet Nam are also more affected by slow-onset impacts of climate change on farming, and are forced to replant rice crops and supplement these with subsidiary crops to supplement lost yields.⁵⁸
35. Children are affected disproportionately by climate change-enhanced disasters and stresses which have direct and indirect impacts on their nutrition, health and education⁵⁹. They are less physiologically and metabolically able than adults to adapt to heat and other climate-related exposure and their development puts them at higher risk of contracting diseases and succumbing to related complications due to lower functional immunity. Interruption to schooling is another child-specific risk. Children are also more likely than adults to be killed

⁵⁶ UNDP and UNISDR 2008 *Linking Disaster Risk Reduction and Poverty Reduction*. UNISDR, Geneva

⁵⁷ For example, Oxfam International estimates that three times as many women as men died in the Indian Ocean tsunami in 2004 – about 70-80%; 61% of deaths caused by Cyclone Nargis were women; in the 1991 cyclone in Bangladesh, 91% of deaths were women.

⁵⁸ UN and Oxfam 2009 *Responding to climate change in Viet Nam: opportunities for improving gender equality*.

⁵⁹ UNICEF 2011 *Children's Vulnerability to Climate Change and Disaster Impacts in East Asia and the Pacific*.

or injured during disasters.⁶⁰ Thus, climate change and disasters impact on both monetary and multi-dimensional poverty and also have the potential to exacerbate existing forms of inequality and disadvantage.

UN Experience: Floating backpack helps children get back to school

When their school became inundated due to the severe flooding in Viet Nam's Mekong Delta in October and November 2011, students at the Thuong Thoi Hau A primary school in Dong Thap province could not go to school anymore. 391 families from Binh Hoa Trung village in the Hong Ngu district of Dong Thap province were affected by the flooding, which caused widespread devastation. Houses, schools, rice fields, fruit orchards and fish ponds were entirely submerged, with water levels stagnating for more than two months. Many roads and bridges were also under water.

When the schools reopened, students had to travel to school by boat, making them feel unsafe. To protect the children and their school supplies, Save the Children with support from UNDP and in close cooperation with the Dong Thap Department of Education and Training, provided school students with a flood-proof floating backpack. The floating backpack is specifically designed to act as both a life jacket and a school backpack. It is based on an original design by an 11-year-old boy from northern Viet Nam and according to children's preferences. The backpack has reflective material for easy recognition, is robust and fulfils the standards of the Safety and Quality Department of Viet Nam.

The backpacks are essential in each school. By using the backpacks, children are protected from drowning and their school supplies do not get damaged if they fall into the water. These efforts were part of a larger emergency response operation carried out by Save the Children with support from UNDP. Over 10,000 families and children in Dong Thap and An Giang provinces have also received floating backpacks, water containers and life jackets. These crucial needs were identified through a joint UN-NGO needs assessment mission carried out in October 2011.

Overall, more than 645,000 people were affected by the Mekong flooding, and 85 percent of all casualties were children. About 156,000 houses were damaged or destroyed. The economic damage was estimated to be US\$193 million.

Yet evidence about the linkages between poverty and natural disasters remains limited.

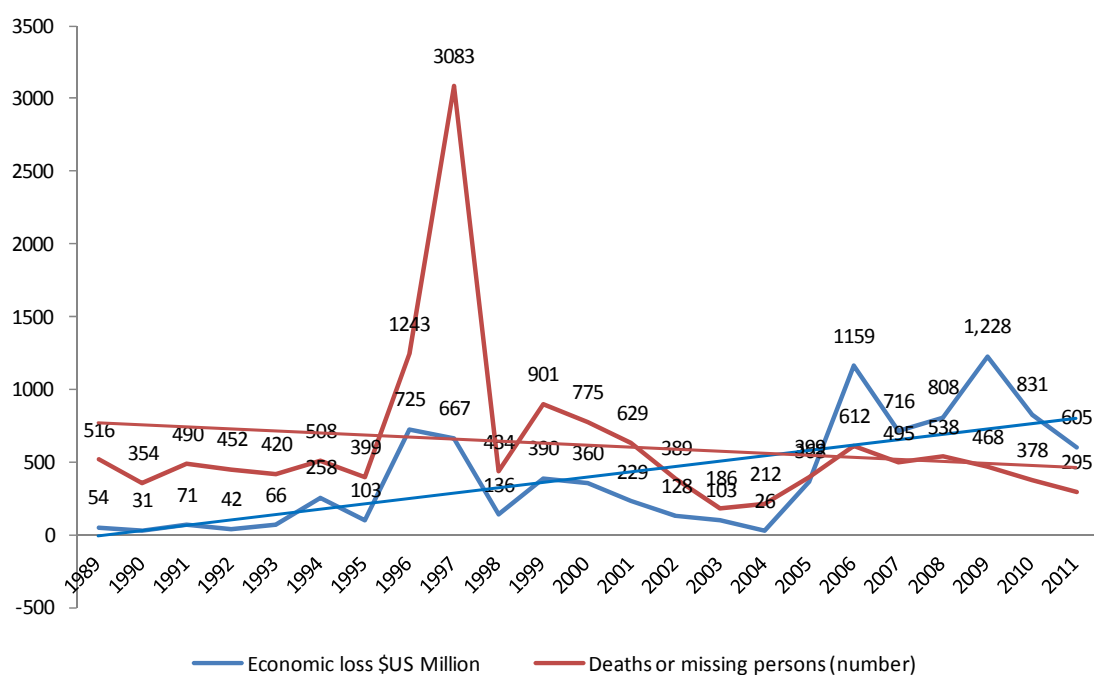
36. While the economic impact of disasters is significant, at between 1.3-1.5 percent of GDP annually, it is likely that this is significantly lower than the actual costs. In particular economic losses at the household level, including losses due to reduced employment and income, reduced assets, and loans taken as a coping strategy are not reflected in economic loss data. Nor are economic impacts on small and micro-enterprises (SMEs)⁶¹ which are an important source of economic growth and employment in Viet Nam fully captured in these statistics. For example a 2011 study which assessed disaster risk management among SMEs in Nghe An, Da Nang and Khanh Hoa found that almost 85 percent of 191 businesses reported being frequently hit by seasonal storms, 45 percent by floods, and some 12 percent by typhoons and high tides.⁶²

⁶⁰ According to CCFSC data, during the flooding in the Mekong Delta region from August to November 2011, of the 89 deaths, 75 were of children.

⁶¹ Under The Asian Foundation's ongoing project funded by USAID's Office of U.S. Foreign Disaster Assistance (OFDA). The project is implemented in Nghe An, Da Nang, and Khanh Hoa. See <http://asiafoundation.org/in-asia/2012/04/18/to-reduce-impact-of-natural-disasters-vietnam-must-engage-small-businesses/>

⁶² Ibid

Figure 1: Economic loss, deaths and missing persons 1989-2011, Viet Nam



Source: 1989-2008 *Weathering the Storm: Options for Disaster Risk Financing in Vietnam*, 2009-2011 CCFSC data

37. Similarly, impacts on livelihoods, health and nutrition, living standards and opportunities are likely to be underestimated. The rate of deaths and injuries appears to have fallen but the economic costs appear to have increased, as shown in Figure 1. This includes damage and destruction of housing and infrastructure, which in turn impedes access to social services, including health and education. At the national level, available data on health impacts and mortality rates is not disaggregated, making it difficult to assess impacts on women, ethnic minorities, the elderly and children. Coastal communities - reliant on fishing, aquaculture and rice cultivation - are particularly vulnerable, as their livelihoods are at risk from hydro-meteorological hazards and the impact of climate change - mainly salt water intrusion, sea surges and rising sea levels.

Provinces in the Central Coast region have specific poverty and vulnerability profiles

38. There is significant variation between the 14 provinces in the Central Coast region in terms of poverty and vulnerability. The official (new) poverty rate in the North Central area and Coastal area was 20.4 percent in 2010, with higher poverty incidence in the north than in the south. The official poverty rate ranged from 5.1 percent in Da Nang, to 31.5 percent in Ha Tinh. The income gap between the richest and poorest quintiles ranged from 5.4 in Binh Thuan, to 8.9 in Ninh Thuan in 2010. Similarly rates of stunting range from 20 percent in Da Nang to 35 percent in Quang Binh, while access to hygienic toilet facilities varies considerably, from 95.7 percent in Da Nang to 25 percent in Ha Tinh. Table 2 shows some selected indicators for these 14 provinces.

Table 2: Selected economic and social indicators for the provinces of the Central Coastal region 2008-2011

Province	Official poverty rate 2010 (a)	Income gap 2010 (a)	Gini Coefficient 2010 (income) (a)	Ethnic minority poverty rate 2010 (a)	Kinh majority poverty rate 2010 (a)	Under weight (children < 5y) (b)	Stunting (children < 5y) (b)	Wasting (children < 5y) (b)	Safe water (c)	Sanitation (c)	HDI (2008) (d)
Binh Dinh	16	6.4	0.309	75.97	14.93	19.3	29.7	7.0	93.3	47.0	0.718
Binh Thuan	20.1	5.4	0.295	63.73	17.54	19.7	32.1	6.8	91.8	64.3	0.713
Da Nang	5.1	6.6	0.298	5.02	2.38	7.8	19.9	4.9	97.8	95.7	0.761
Ha Tinh	26.1	6.9	0.337	45.46	21.52	21.8	34.7	10.2	93.6	24.9	0.717
Khanh Hoa	9.5	7.5	0.328	77.13	11.58	15.7	27.2	8.2	92.7	73.0	0.735
Nghe An	24.8	7.5	0.370	70.46	18.93	21.7	32.9	8.2	87.4	26.7	0.700
Ninh Thuan	19	8.9	0.313	72.64	24.09	23.5	31.6	8.4	77.4	62.0	0.655
Phu Yen	19	6.6	0.324	77.68	18.56	19.1	31.8	6.8	92.3	42.6	0.693
Quang Binh	25.2	7	0.354	90.26	20.61	23.6	35.2	7.2	85.4	38.5	0.701
Quang Nam	24	6	0.318	82.01	18.23	18.2	32.8	6.8	88.1	63.5	0.709
Quang Ngai	22.8	6	0.329	82.27	14.79	19.2	29.8	6.9	88.2	52.5	0.689
Quang Tri	25.1	6.8	0.350	89.77	20.82	19.5	32.9	7.1	85.9	42.1	0.686
Thanh Hoa	25.4	6	0.354	64.1	18.53	23.2	33.7	8.0	88.2	34.1	0.703
Thua Thien - Hue	12.8	6.8	0.321	74.28	16.88	19.3	28.9	7.6	91.9	68.9	0.694
Central Coastal region	20.4	7.2	0.385	71.61	17.11	14.3	28.4	4.3	89.8	79.1	0.707

Source: a)VHLSS 2010, b) National Nutrition Survey 2010 c) Census 2009 d) National Human Development Report 2011 (2008 data)

39. Provinces in the region also showed significant variation in achievement of progress in life expectancy, education and incomes, as measured by the Human Development Index (HDI).⁶³ In 2008 the HDI for Viet Nam was 0.728, 0.707 for the North Central area and Coastal area. Provincial HDI values in the region ranged from 0.761 in Da Nang to 0.655 in Ninh Thuan. The main driver of poor performance in the HDI is slow improvements in educational attainment.
40. Provinces in the North Central area and Coastal area are among the most vulnerable nationally to natural hazards. Data from the Central Committee for Flood and Storm Control (CCFSC) shows that of the 14 provinces in the region, 10 are the most vulnerable to natural hazards in the country, including storms, floods, flash floods and whirlwinds, nationally: Hue, Quang Ngai, Quang Tri, Quang Binh, Thanh Hoa, Binh Dinh, Quang Nam, Nghe An, Phu Yen and Binh Thuan. Data from the global Disaster Information Management System (DIMS) shows that the total number of deaths in the region between 1989 and 2009 was 5,885; and the total number of houses destroyed or damaged was 971,837.⁶⁴ Quang Ngai, Binh Dinh and Thua Thien Hue were most affected by disaster related deaths and persons missing; while Quang Binh and Thanh Hoa were most impacted by destruction and damage to housing. Table 3 shows hazard potential⁶⁵, deaths and persons missing, and houses damaged or destroyed indicators for the fourteen Central Coast provinces in the decade from 1999 to 2011 while Maps 1 and 2 show deaths and missing persons, and destruction and damage to housing for the same period.

⁶³The Human Development Index (HDI) is a composite measure of health, education and income, designed to assess levels of and progress towards human development more broadly than is possible using income based measures alone. It combines four key indicators: life expectancy at birth, the gross enrolment ratio, adult literacy rates and GDP per capita, adjusted for Purchasing Power Parity (PPP). See UNDP 2011 *Viet Nam Human Development Report: Social Services for Human Development*. UNDP, Hanoi

⁶⁴Disaster Information Management System accessed at: www.desinventar.net

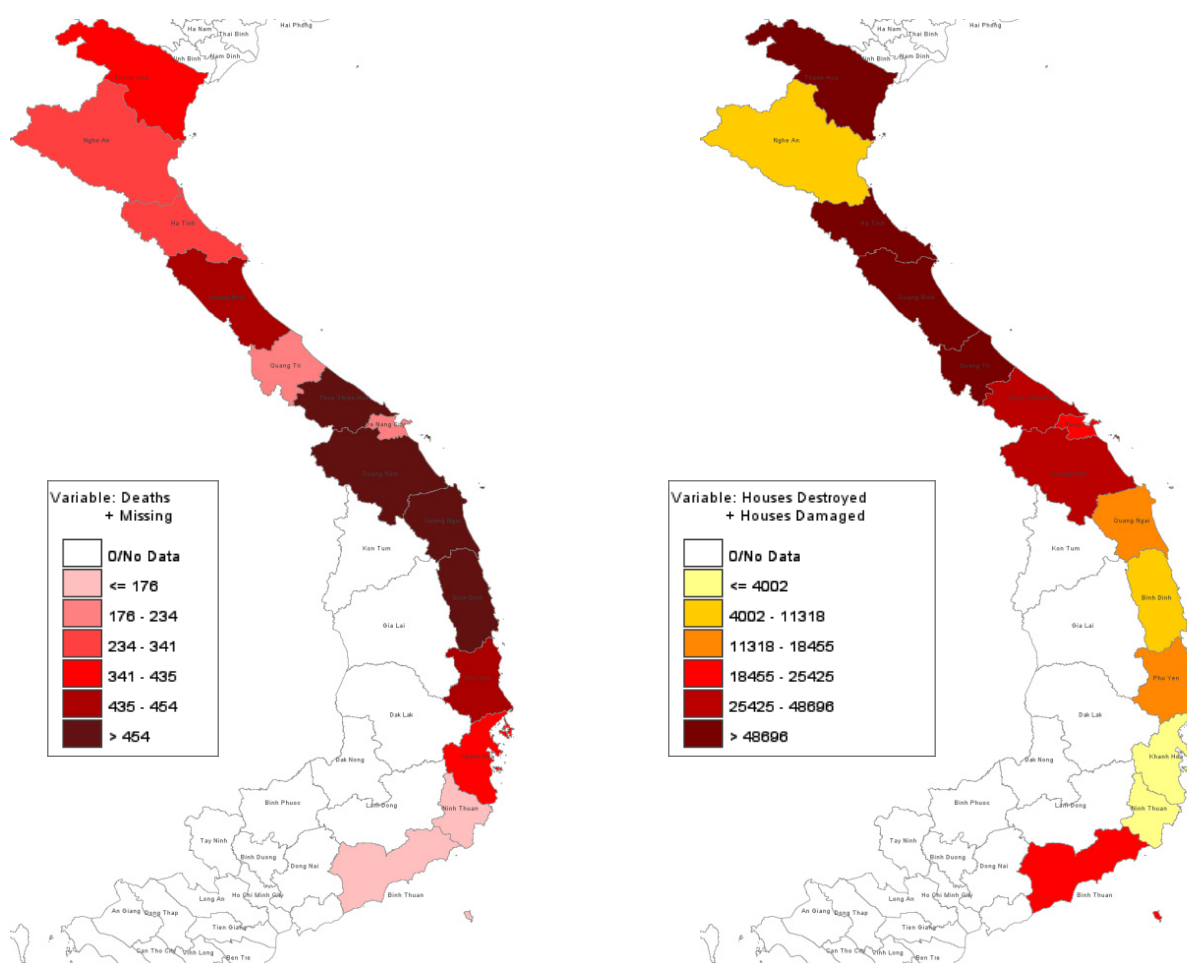
⁶⁵Hazard potential is derived from examining the historical Japan Meteorological Agency's best-track data on storms (when wind ≥ 35 knot, probability $0 \leq p \leq 1$), MoNRE's disastrous rainfall (where daily rainfall ≥ 51 mm, probability $0 \leq p \leq 1$) and drought (yearly rainfall < 250 mm, probability $0 \leq p \leq 1$) and the CCFSC data for other disasters.

Table 3: Hazard potential, deaths and houses destroyed, for the 14 provinces in the Central Coastal region (1989-2009)

Province	Hazard potential	Deaths and missing persons 1989-2009	Houses damaged and destroyed 1989-2009
Binh Dinh	0.363	622	11,318
Binh Thuan	0.308	176	25,425
Da Nang	0.206	234	20,422
Ha Tinh	0.302	243	96,172
Khanh Hoa	0.260	382	2,635
Nghe An	0.347	341	9,676
Ninh Thuan	0.241	112	4,002
Phu Yen	0.330	439	18,360
Quang Binh	0.374	454	515,249
Quang Nam	0.362	603	48,696
Quang Ngai	0.404	1029	18,455
Quang Tri	0.380	201	52,523
Thanh Hoa	0.367	435	108,646
Thua Thien - Hue	0.435	614	40,258
Central Coastal region	-	5,885	971,837

Source: CCFSC; Disaster Information Management System accessed at: www.desinventar.net

Map 1: Deaths and missing persons 1989-2009 Central coast; Map 2: Houses damaged and destroyed 1989-2009, Central coast



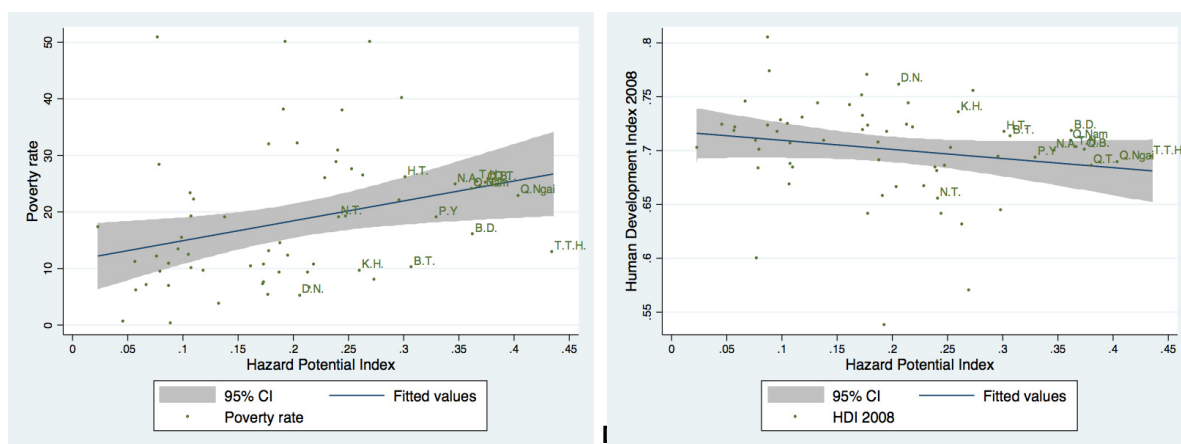
Source: Disaster Information Management System accessed at: www.desinventar.net

Poverty and natural disasters appear to be correlated

41. Analysis undertaken for this paper suggests that poverty rates and disaster risk are correlated. As shown in Figure 2, nationally, provinces with a higher risk of potential hazards from storms, floods, flash floods and whirlwinds also had a higher poverty rate in 2010. The correlation is significant: a 1 percent increase in hazard risk is associated with a 0.35 percent increase in the poverty rate.
42. The 2011 Global Human Development Report shows that a 10 percent increase in the number of people affected by an extreme weather event reduces the HDI by almost 2 percent.⁶⁶ In Viet Nam, a higher hazard risk is correlated with lower progress in the HDI (Figure 3). While this correlation is of lower magnitude given the different indicators that make up the HDI, including health and education as well as income, it is close to significant. While no conclusion can be drawn as to the causal relationship between these indicators, it is clear that there is a correlation. This analysis is very initial and further research on the correlation between poverty, disasters and human development in Viet Nam is required.

⁶⁶UNDP 2011 *Human Development Report 2011 Sustainability and Equity: A Better Future for All*: 59

Figure 2: Hazard potential and poverty rate 2010; Figure 3: Hazard potential and HDI 2008



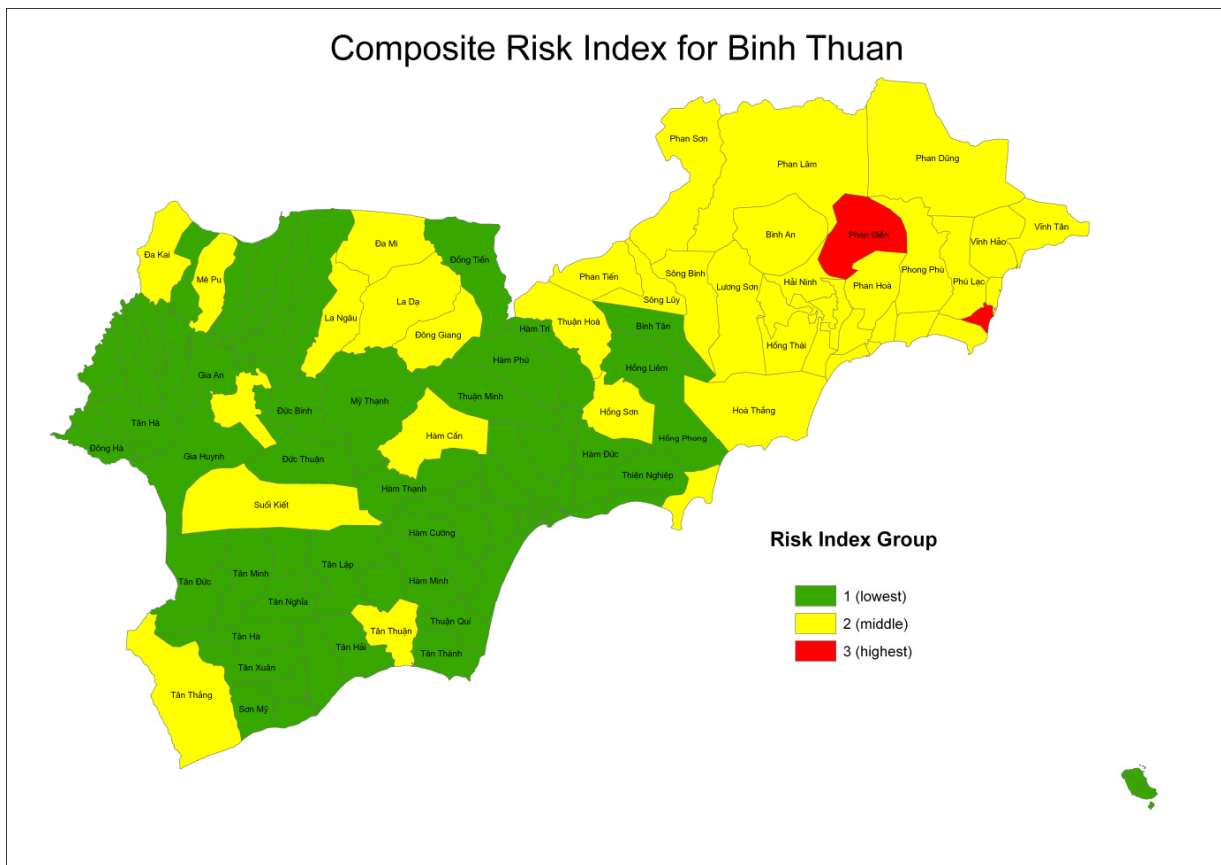
43. As this discussion shows, disasters and climate change are slowing down achievement of MDG 1 on poverty. In addition, climatic events and disasters pose specific threats to the achievement of related goals on hunger, health and education and environmental sustainability. A more nuanced and evidence based assessment of poverty, vulnerability and disaster risk is needed to inform national and sub-national responses and planning.

UN experience: National risk assessment for the Government’s community based disaster risk management programme

Viet Nam is prone to various types of disasters but the level of vulnerability varies across communities. UNDP has commissioned Indochina Research to develop a methodology for identifying 6,000 vulnerable communes, in order to support implementation of the Community-Based Disaster Risk Management (CBDRM) Programme. The methodology aims to evaluate the vulnerability to disasters that communities face by examining three aspects: hazard potential, hazard exposure and coping capacity. Hazard potential captures the likelihood that a community will be hit by disasters. Hazard exposure measures the size of the population that is exposed to disasters and coping capacity refers to how well residents of the community are able to cope with the disasters.

Utilizing archives of all tropical storms that have hit Viet Nam since 1950, daily rainfall observations from 172 weather stations nationwide, data from CCFSC’s disasters database covering incidence of other disasters in Viet Nam since 1989 and demographic and welfare data drawn from the 2009 Population Census and other provincial indicators, an integrated risk index is constructed to rank communities according to their level of vulnerability to natural disasters. As the map below shows, all communes in Binh Thuan have been classified into three groups according to their risk level.

Map 3: Risk Index for Binh Thuan province



Policy implications

- ❖ *Conduct further research on the nexus between poverty, vulnerability, disasters and climate change, including local risk assessments designed to capture vulnerabilities and capabilities of local communities⁶⁷ at the provincial, district and commune level.*
- ❖ *Ensure disaggregated data collected at the local level is aggregated and reported at national level.*

⁶⁷ See: Viet Nam Red Cross 2010 ‘*Vulnerability And Capacity Assessment, A Manual for Red Cross Practitioners*’, Volume I and II

IV. CERTAIN PLANNING AND INVESTMENT DECISIONS APPEAR TO BE EXACERBATING VULNERABILITIES

Reform of public investment is a priority for Viet Nam

44. Improving the efficiency of public investment is one of three main priorities identified by the Government in its economic reform agenda. The ambitious public investment agenda estimated at 20 percent of GDP coupled with high levels of public debt at 57 percent of GDP is fiscally unsustainable and fuels macro-economic instability. Investment in infrastructure accounted for 12 percent of GDP between 2006 and 2010.⁶⁸ Despite significant investment, infrastructure bottlenecks persist and remain a binding constraint to growth: these include lack of reliable power supply, road congestion and poor quality of infrastructure. In addition, return on investment has been declining: the ratio of investment to GDP has risen while GDP growth has slowed.⁶⁹
45. Public investment is highly inefficient and investment decisions are fragmented. Inefficient public resource allocation is exacerbating vulnerabilities by reducing fiscal space for social protection measures and limiting spending on social sectors. Powerful financial incentives encourage businesses and Government agencies to continue to propose new projects. Planning for infrastructure development is highly fragmented, with most projects initiated at the local level by provincial Governments vying to attract resources and generate revenues. Many competing investment decisions are made in the absence of an overall strategic vision or priorities based on the country's needs. Viet Nam has seen a proliferation of industrial parks, economic zones and deep-sea ports as a result.⁷⁰

Public investment should take into account environmental sustainability.

46. At present, certain investment decisions are contributing to disaster risk and exacerbating vulnerabilities. To give just one example, the number of small and medium hydro-electric dams constructed in Viet Nam has increased exponentially, and is estimated at close to 900 nationally⁷¹, of a total of more than 5,500 reservoirs in 45 provinces and cities. As of 2012, Electricity of Viet Nam (EVN) has 28 reservoirs used for the production of hydroelectric power. Hydropower accounted for 72 percent of the annual 14.6 TWh (tera-Watt per hour) of electricity production in 1995, but by 2010 it accounted for just over 24 percent of the annual electric power generation of 97.4 TWh. The Son La hydropower project will be the largest hydroelectric project in Viet Nam, producing almost 10 billion kWh each year with an installed capacity of 2,400 MW by completion. The additional potential generating capacity from hydropower in Viet Nam is estimated to be around 800-1,400 MW, and so is nearly exhausted.⁷²
47. While hydropower is a non-consumptive use of water the need to maintain a certain water level may negatively affect the availability of water downstream, causing problems of drought and/or water use conflicts between hydropower requirements and for example, agricultural

⁶⁸Pincus, J. 2012 *Structural Reform for Growth, Equity and National Sovereignty: A Policy Discussion Paper for the Viet Nam Executive Leadership Program*: 32

⁶⁹World Bank 2011 *Viet Nam Development Report 2012: Market Economy for a Middle-Income Country*. World Bank, Hanoi

⁷⁰Ibid

⁷¹ According to the Viet Nam Irrigation Association See: *Viet Nam Investment Review*, 21/5/2012 'Hydropower projects hurt mother nature' accessed at www.vir.com.vn

⁷²UNDP Viet Nam 2012 *Fossil Fuel Fiscal Policies and Greenhouse Gas Emissions in Viet Nam: Subsidies and taxes in Viet Nam's energy sector, and their effects on economic development and income distribution in the context of responding to climate change*. UNDP, Hanoi

activities downstream. In addition, sudden releases of water may cause flooding problems and river erosion downstream. Therefore, the operation of hydropower plants requires coordination with other water user sectors, in particular agriculture.

48. Hydropower is a renewable source of energy with a generally low carbon footprint: it is low on greenhouse emissions. Hydropower development has however potential negative environmental impacts including risk of degradation and exhaustion of water resources, sedimentation and erosion, downstream impacts including drought, flooding, and earthquakes. Social impacts of resettlement are significant for communities affected.⁷³ Hydropower development including the Son La project in particular should help meet Viet Nam's spiraling demand for energy but thousands of people will be displaced and many thousands more living downstream will be affected. There are also important risks of failure of dams and associated downstream floods and devastation from substandard maintenance, as has been reported widely in the media over recent months, and also from lack of coordination in dam management in cases of multiple (cascades) of dams in one river basin.
49. Hydropower is important in meeting Viet Nam's energy needs, but social and environmental impacts of large scale hydropower investments must be addressed, and more effective mitigation and compensation measures introduced. Benefit-sharing mechanisms are an important strategy to ensure broader development goals are met and benefits of growth are more equitably distributed.⁷⁴ In addition, Viet Nam has considerable unexploited renewable energy potential, such as wind, solar and modern biomass energy. Such technologies can also meet the energy needs of the country, are low risk for the rural poor, are less at risk from hazards and climate change, cause relatively little social disruption, and can generate local rural employment, in contrast to the construction and operation of hydroelectric reservoirs.
50. In the Central Coastal region which is home to 10 of the provinces most vulnerable to disasters in the country, ensuring effective management and use of water resources to meet growing water demand and protect against hazards while maintaining ecological environments is critical to reduce vulnerability and promote resilient livelihoods.⁷⁵ Concerns have been raised in the region regarding pollution and destruction of forests, and impoverishment of communities due to resettlement.⁷⁶ Recent media coverage has highlighted specific instances of water leakage due to poor construction; drought due to failure to release water on demand, and flooding due to heavy rainfall. MoNRE estimates that 43 hydroelectric power dams in Quang Nam alone have caused destruction of 10,000 hectares of forest.⁷⁷ Concerns and disputes over water resource use and management are escalating as a result.
51. In May 2012, a controversy was created by the refusal of hydropower plants Song Tranh 2, Song Con, A Vuong and Dak Mi 4 to increase water discharge downstream to save drought-hit rice growing areas. The Dak Mi 4 hydroelectricity project reservoir management board refused to accede to central Government instructions and the Quang Nam provincial Government's request to discharge water to remedy the drought situation in downstream areas, on the basis that the upstream water level was currently too low. The low water level in the Vu Gia River has caused increased salt water intrusion, and put an estimated 1.7

⁷³VUSTA 2009 *Assessment of Viet Nam Power Development Plan*, VUSTA, Hanoi

⁷⁴[no date] *Strategic Environmental Assessment of the Hydropower Master Plan in the Context of the Power Development Plan IV*

⁷⁵MoNRE and UNDP 2009 *Building resilience: adaptive strategies for coastal livelihoods most at risk to climate change impacts in Central Viet Nam*. UNDP, Hanoi

⁷⁶Viet Nam Net Bridge 09/05/2012 'Dam projects destroy environment' accessed at: www.vietnamnet.vn

⁷⁷Ibid

million residents at risk and in danger of water shortages for daily usage and irrigation in Da Nang City and several districts in Quang Nam Province.⁷⁸

52. Negative impacts on the environment, river ecology, and community livelihoods and food security have recently led the Government to commit to inspect dams in 22 provinces and cities nationwide.⁷⁹ To help improve the situation, implementation of existing legislation is required. In addition, comprehensive and overarching legislation on reservoir management is urgently needed to address the complex issues involved.⁸⁰

Climate and disaster proofing of infrastructure must be mainstreamed as a priority

53. Considering hazard risks when planning for infrastructure is essential to build resilience and reduce vulnerability to disasters and climate change. This requires not only construction of infrastructure to protect people's lives, livelihoods and property, such as dykes and reservoirs, but also climate proofing of new infrastructure including schools, hospitals and clinics, housing and civil service buildings. Measures to ensure that schools and health facilities remain accessible during and immediately after disasters are essential.
54. Climate proofing of infrastructure has been identified as a priority in the National Target Program to Respond to Climate Change. However, at present, climate change and disaster risk reduction are not well mainstreamed into planning frameworks and guidance for zoning, design and construction at the local level. For example, housing in the Central Coastal region is poorly adapted to intensifying hazards.⁸¹ Anecdotal evidence from several provinces in the Central Coastal region also suggests that while development planning for construction, transport and irrigation considers disaster risks, funding allocation does not support effective integration of disaster risk measures such as dyke and reservoir construction. Planning for construction takes place at provincial level for public facilities while at community level people still build without regard to planning requirements and in high risk areas.⁸² Disaster risk reduction and climate change adaptation must be fully integrated into infrastructure planning and supported by financial allocations. It will also be important to include in the draft Law on Prevention, Control and Mitigation of Natural Disasters⁸³ specific requirements to ensure investment is disaster and climate change proofed, when building back after disasters, as well as for critical infrastructure projects.

⁷⁸See Viet Nam Net Bridge 17/05/2012 'Hydropower Plant refuses to release water for Vu Gia River', accessed at: www.vietnamnet.vn; Lao Dong 20/05/2012 'Thủy điện: Thảm họa được báo trước' accessed at: <http://laodong.com.vn/>

⁷⁹Viet Nam Investment Review, 21/5/2012 'Hydropower projects hurt mother nature' accessed at www.vir.com.vn

⁸⁰ With clearly delegated responsibilities for: MARD/Directorates of Water Resources, MoNRE, the Ministry of Commerce, EVN, the Electricity Regulation Department; Provincial People's Committees, Departments of Agriculture and Rural Developments, Departments of Irrigation, River Basin Organisations and respective Sections at district and commune levels.

⁸¹MoNRE and UNDP 2009 *Building resilience: adaptive strategies for coastal livelihoods most at risk to climate change impacts in Central Viet Nam*. UNDP, Hanoi

⁸²Preliminary findings from the review of implementation of the National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020, forthcoming

⁸³It is envisaged that the Law will be submitted to the National Assembly for consideration and comments in October 2012 and for approval in May 2013.

Improved governance of public investment is required to ensure sustainability and promote resilience

55. Improved management and oversight of public investment is critical to ensure more balanced trade-offs between economic development and impacts on the environment, hazards and disasters and vulnerability of affected communities. Just as importantly, greater efficiency in public investment is required in order to free up resources for social expenditures, including social protection initiatives and basic social services. Increased participation in decision-making at the local level is also needed to ensure a broader range of interests are represented when major public investment decisions are being made. Building resilience and reducing vulnerability requires effective governance mechanisms and enforcement of existing policies and regulations, together with enhanced cooperation and collaboration, rather than competition, between provincial Governments.⁸⁴
56. The 2011 Governance and Public Administrative Performance Index (PAPI) provides an assessment of current performance of provincial Governments in Viet Nam; and therefore provides an independent measure of the capacity of provinces to respond to these governance challenges. PAPI measures performance in six key dimensions: participation, transparency, accountability, corruption, administrative procedures and service delivery. In 2011 six Central Coast provinces were ranked among the best performers nationally. Thanh Hoa, Ha Tinh, Quang Binh, Quang Tri, Da Nang and Binh Dinh. Nghe An and Quang Nam were ranked as high average performers. Four provinces were ranked as poor performers: Quang Ngai; Phu Yen, Binh Thuan and Ninh Thuan, and two as low average performers: Khanh Hoa and Thua Thien Hue. Table 4 shows the overall scores and performance on each dimension of the PAPI index for these 14 provinces.

⁸⁴MONRE and UNDP 2009 *Building resilience: adaptive strategies for coastal livelihoods most at risk to climate change impacts in Central Viet Nam*. UNDP, Hanoi

Table 4: Provincial Administrative Performance Index (PAPI) results for Central Coastal provinces, 2011⁸⁵

Province	D1. Participation at local levels	D2. Transparency	D3. Vertical Accountability	D4. Control of Corruption	D5. Public Admin. Procedures	D6. Public Service Delivery	PAPI (Unweighted)
Binh Dinh	5.884	5.682	6.005	6.975	6.902	7.013	38.461
Binh Thuan	4.321	4.882	5.437	6.356	6.658	6.483	34.136
Da Nang	5.278	5.456	5.790	6.156	7.332	7.430	37.443
Ha Tinh	5.629	6.685	6.511	6.324	7.151	6.854	39.155
Khanh Hoa	5.354	5.533	5.278	5.981	6.434	6.664	35.244
Nghe An	5.405	5.938	6.318	6.149	6.837	6.414	37.060
Ninh Thuan	5.062	4.641	5.522	5.783	7.063	6.923	34.995
Phu Yen	4.763	5.019	5.212	5.917	6.579	6.264	33.753
Quang Binh	6.293	6.351	6.571	6.419	7.466	7.220	40.319
Quang Nam	5.329	5.717	5.409	6.623	6.447	6.838	36.364
Quang Ngai	5.049	5.306	5.578	6.014	6.409	6.306	34.662
Quang Tri	5.883	6.096	6.984	6.342	7.312	7.041	39.657
Thanh Hoa	5.543	5.965	5.943	6.094	7.260	6.782	37.587
TT-Hue	5.277	5.354	5.331	5.821	6.644	6.971	35.398

Color code:	Best performer	Above 75th percentile
	High Average	Between 50th and 75th percentile
	Low Average	Between 25th and 50th percentile
	Poor Performer	Below 25th percentile

57. Analysis of 2011 PAPI provincial results and the 2008 HDI for Viet Nam's 63 provinces shows a clear correlation between good governance and higher levels of human development. A higher score on PAPI is also correlated with lower poverty rates at a national level. However, in the Central Coast region several provinces with higher poverty rates were high performers according to PAPI: Quang Tri, Quang Binh and Ha Tinh. Thus, some provinces which were tackling difficult challenges including high poverty levels and significant risk of hazards were nevertheless able to deliver effective public administration for their citizens. Given the importance of good governance for effective policy implementation, responsive poverty reduction and effective disaster risk management efforts this is a heartening result.

⁸⁵Dimensions 1 to 6 are scaled with scores from "1" as minimum and "10" as maximum. PAPI scores are scaled from "6" as minimum to "60" maximum. See www.papi.vn; CECODES, FR, CPP & UNDP 2012 *The Viet Nam Governance and Public Administration Performance Index (PAPI): Measuring Citizens' Experiences*.

UN experience: Empowering grassroots women to cope with climate change

Since 2010, UN Women has provided funding and technical assistance to the Viet Nam Women's Union to implement the project '*Enhancing the capacity of women to cope with climate change: Empowering grassroots women to cope with natural disasters*'. Implemented in Phu Yen and Binh Dinh, the project will be extended to other coastal provinces including Quang Binh, Quang Tri and Thua Thien Hue over the next few years. The project aims to increase the role of local women in disaster risk reduction and management by improving their knowledge and skills, therefore enhancing prevention, preparedness and mitigation efforts in local communities, and reducing negative consequences of disasters and climate change. The project also aims to strengthen the participation of women in decision-making related to disasters and climate change, in particular by increasing their participation in local Committees for Flood and Storm Control. Highlights of the initiative include:

- Training courses on gender, climate change and disasters for women leaders and civil servants at provincial and district levels. Training for commune officials has helped communes to develop plans of action for disaster risk reduction which better address women's needs.
- A radio soap opera about women's role in disaster preparedness and response, broadcast before and during the disaster season. The program has been accompanied by flyers and posters, highlighting key messages which are distributed to households and commune institutions. Local women have also learned about climate change and disaster risk reduction through games, role playing and simulations, during monthly meetings of commune women's clubs.
- Twice yearly meetings between grassroots women and authorities involved in disaster preparedness and management have created opportunities for the local Women's Union to discuss how to strengthen the role of local women and the Women's Union in climate change adaptation and disaster risk reduction in their communities with provincial, district and commune leaders. The Viet Nam Women's Union continues to advocate to become a permanent member of the Committee for Flood and Storm Control. As a result of the project the Women's Union is now a member of the CFSC in Phu Yen province.

Policy implications:

- ❖ *Ensure balanced participation of different interest groups in decision-making at the national and community level including in major investment decisions. A multi-stakeholder approach that involves representative from Government, civil society, the private sector and the broader development community, together with representatives of specific vulnerable groups, is needed.*
- ❖ *Develop comprehensive and overarching legislation on reservoir management specifying the role and responsibilities of specific Ministries and agencies.*
- ❖ *Public investment decisions must be based on strategic national and economic interest, and local needs. Government must take a stronger oversight role in ensuring that companies comply with existing legislative requirements.*

V. PROMOTE RESILIENCE AND REDUCE VULNERABILITY TO SHOCKS AND HAZARDS

Viet Nam has performed well in the immediate response to disasters including providing disaster relief

58. Viet Nam has put in place effective systems to respond to disasters and provide immediate relief in the post-disaster period. The Hyogo Framework for Action 2005-2015 was adopted by Viet Nam in 2005. The country has placed considerable emphasis on upgrading early warning systems including by investing in forecasting and in public communication, including via TV, radio and local level loudspeakers. Early warning for earthquakes and tsunamis has also improved. Viet Nam has already invested significantly in upgrading the forecasting and early warning system, and in infrastructure including construction of sea dykes, upgrading of embankments, safe harbours, and reservoirs.⁸⁶ The Central Committee for Flood and Storm Control has adopted the Four on the Spot motto: “human resources on the spot, leadership on the spot, logistics on the spot and materials on the spot.”⁸⁷ As a result of these initiatives, the number of deaths due to disasters has decreased.
59. Viet Nam is reasonably well positioned to respond quickly to emergencies by providing people with basic food systems, via an effective response mechanism through the CCFSC with the support of mass organizations, notably the Fatherland Front and the Viet Nam Red Cross Society, the private sector and the general public. Contingency assistance in the case of shocks such as bad harvests and disaster is considered to be delivered in a timely way and procedures have been streamlined.⁸⁸

*Viet Nam Red Cross experience: cash transfers in Gia Lai, Kon Tum, Quang Nam and Quang Ngai Provinces in the aftermath of Typhoon Ketsana*⁸⁹

On 29th September 2009, Typhoon Ketsana struck central Viet Nam with wind gusts of up to 160km an hour. The typhoon swept through 12 provinces including Binh Dinh, Da Nang, Dak Lak, Gia Lai, Kon Tum, Lam Dong, Phu Yen, Quang Binh, Quang Nam, Quang Ngai, Quang Tri and Thua Thien Hue. It caused widespread destruction, with the provinces of Quang Nam and Quang Ngai the hardest hit, resulting in the evacuation of 103,123 households. One of the main features of Typhoon Ketsana was the multiple hazards experienced by communities in different environments and across a wide area. An estimated three million people were impacted by floods (the worst in Central Viet Nam for 45 years), flash floods, landslides, and high winds.

In the aftermath of the Typhoon, a large scale unconditional cash transfer programme was implemented by the Viet Nam Red Cross (VNRC) Society to provide humanitarian assistance to affected people. Funding was provided by the United States Agency for International Development, Office of Foreign Disaster Assistance and channelled through the American Red Cross, who provided technical guidance as well as overall monitoring, project management support and supervision.

This was the first time that the VNRC had implemented a post-disaster cash transfer programme. The cash transfers aimed to help people meet their immediate basic needs begin to stabilize or rebuild their livelihoods and to re-stimulate local economies. The initiative reached over 8,500 households in four of the worst affected provinces of Gia Lai, Kon Tum, Quang Nam and Quang Ngai.

Results from post-distribution household surveys showed that the majority of cash transfers were used for buying food, together with expenditure on other basic needs such as house repair, medicines

⁸⁶Disaster Management Center, Ministry of Agriculture and Rural Development 2009 *Viet Nam National progress report on the implementation of the Hyogo Framework for Action (2009-2011)* Interim report

⁸⁷Ibid

⁸⁸VASS 2011 *Rapid Impact Monitoring 2011 Synthesis Report*, Hanoi October 2011: 88

⁸⁹Rastall, R. 2010 *Programme Final Evaluation Report: Post Typhoon Ketsana Cash Transfers in Gia Lai, Kon Tum, Quang Nam and Quang Ngai Provinces*, March 2010, the IDL group Ltd., Viet Nam

and clothes. Households also invested in productive assets, such as agricultural tools, seeds, fertilizers and/or small livestock (such as pigs and poultry). The cash grants were used appropriately and in line with the intended objectives of the programme. They also had an impact by assisting some of the poorest and vulnerable households in these provinces to more effectively recover. People were able to use the cash according to their needs, which differed according to a wide range of cultural, socio-economic, geographic and other contextual factors.

Constraints and weaknesses were inevitably experienced; however, based on lessons learned from this programme, guidelines and a standard operating procedure for unconditional cash grants were developed.

Overall the programme was successful and demonstrated the potential for scaling-up unconditional cash transfers as a humanitarian tool for the emergency, post-disaster response in future. The capacity and confidence of the VNRC was developed and the important role of volunteers (in monitoring and supervision) of these kinds of distributions also demonstrated. UNDP has established a four year partnership with VNRC, Oxfam and the Women's Union specifically designed to build on existing humanitarian responses and scale up innovative approaches to early recovery.

60. Significant funding gaps however exist for longer term recovery and reconstruction. The main sources of post-disaster financing for emergency relief and recovery are national and provincial contingency budgets and in more extreme cases, the national reserve. According to a study by the World Bank, under the State Budget Law of 2002, central and local Governments are required to allocate 2-5 percent of their budget for capital and recurrent expenditure to contingency budgets. Estimates suggest that a once in 50 year event would create an estimated reconstruction funding gap of between \$US850-900 million.⁹⁰ Without a disaster risk financing strategy, recovery and construction are subject to delays as financing may not be available or channels and capacities to transfer funds may not exist. This constrains livelihood support and rehabilitation, including social protection and safety nets for the poor.⁹¹ Such a disaster risk financing strategy and sufficient contingency funds at central, provincial and local level are particularly important as the Government has limited financing possibilities from other sources.

61. Disaster risk management investments are proven to be cost effective, politically expedient and socially sustainable. Yet given short political time horizons, the risk is that Governments may overly discount future risks. It remains difficult to justify disaster risk management investments based on estimates of avoiding impacts on medium and long-term economic growth, as estimates vary widely and country experiences differ considerably.⁹² Disasters always impact on the well-being of those affected, but may not always impact on economic growth in the medium term. Economic impact depends in part on the severity and type of hazard involved as well as the level of economic development. Mitigation is however often cost-effective, as "even short lived impacts of disasters on health and education can have long term effects on income and wellbeing."⁹³

Community based approaches to disasters and climate change require strengthening

62. Disaster risk management has traditionally focused on mitigation, 'prevention', preparedness, response and search and rescue, without tackling underlying risks and vulnerabilities

⁹⁰World Bank 2010 *Weathering the Storm: Options for Disaster Risk Financing in Vietnam*, Hanoi, World Bank

⁹¹Disaster Management Center, Ministry of Agriculture and Rural Development 2009 *Viet Nam National progress report on the implementation of the Hyogo Framework for Action (2009-2011)* Interim report

⁹²See UNISDR 2011 *Global Assessment Report on Disaster Risk Reduction*. Geneva, Switzerland: United Nations International Strategy for Disaster Reduction: Chapter Five

⁹³World Bank and United Nations 2010 *Natural Hazards, Un-Natural Disasters: The Economics of Effective Prevention*. World Bank, Washington: 57

including poverty and deprivation which make it difficult for households and communities to cope and recover. Local people have not been adequately involved in decision making, resulting in limited ownership, a lack of contextualization and often unsustainable activities. A more participatory and holistic approach to reducing risk, addressing underlying vulnerabilities and linking disasters with larger process of development, that locates people at the centre of the decision-making process and as active participants in their own development is needed.

63. An integrated community-based approach to disaster risk reduction and climate change adaptation is becoming more relevant in light of increasing vulnerabilities and risks due to climate change, urbanization and rapid socio-economic development, with a focus on strengthening Government institutions to address these new challenges. In July 2009, the Government approved the 'Community Awareness Raising and Community Based Disaster Risk Management (CBDRM) Programme', which will be implemented over a 12 year period in 6,000 communes and villages.
64. Numerous disaster risk management initiatives have been undertaken by civil society organizations and the Red Cross at the community level and have produced tangible results. However, many of these projects are funded by external sources and often cease when the funding ends. Many initiatives also have been small to medium scale and have not covered large areas. Whilst ever local communities are not the owners of these projects, or are not involved in all stages of planning and implementation, these projects cannot be carried out in a sustainable way. Government endorsement of the CBDRM Programme and involvement encourages sustainability. The CBDRM approach attempts to ensure that disaster risk management is more firmly driven by local people – many of whom are poor and vulnerable to hazards - and links these efforts with the wider development process.

UN experience: GEF Small Grants Projects 'Strengthening local adaptive capacity': lessons learned from community adaptation projects in the central provinces⁹⁴

Since 1999, 165 projects have been implemented by local NGOs and community based organizations to reduce risk from disasters, adapt to climate change, increase bio-diversity, and support conservation and the sustainable use of natural resources by adopting community-based approaches. These include, for example, working with local people in Cam Tam Commune, Cam Tam District, Thanh Hoa Province, on upland ecosystems, addressing droughts, flash floods and land degradation, through small infrastructure development, rainwater harvesting, reforestation and the use of drought tolerant crop varieties. In Huong Phong Commune, Phu Vang District, Thua Thien Hue Province on the coastal lagoon ecosystem, projects have addressed salinity intrusion, land degradation and coping with regular storms, through mangrove plantation, rice-fish cultivation, and development of management plans for natural resources and community ecotourism.

Lessons learned from these small scale projects include fostering a greater understanding of climate change impacts and the need for local communities to define their own community based approaches. Local communities have already taken adaptive measures but these have been 'passive' and the measures adopted limited to those available based on indigenous knowledge, skills and resources. However effective adaptation requires the following:

⁹⁴Funded by GEF through UNDP under the GEF Small Grants Project.

- giving high priority to capacity development of local communities addressing simultaneously the short-term impacts on livelihoods and the longer-term impacts on natural resources of development (non-climatic reasons) and of climate change (climatic reasons);
- combining indigenous knowledge with advanced technologies for adaptation, to enable communities to proactively respond and adapt to climate change impacts in a flexible manner; and
- ensuring the appropriateness of adaptation measure for specific communities, taking into account the local culture, environment and natural resources.

Conservation and the sustainable use of natural resources has proven to be an effective adaptation strategy as poor communities, facing environmental degradation and living in prone disaster areas, are the most vulnerable to climate change and depend heavily on natural resources for their livelihoods. Climate change adaptation measures need to be based on the use of environmentally friendly technologies and methods, promoting conservation and sustainable use of biodiversity, water and land resources. Diversification of income streams and promoting off farm-income generation are effective in reducing climatic risks in agriculture development and reducing the overexploitation of natural resources.

Such community-based approaches have similar characteristics and face challenges common to other community development projects led by local NGOs and community based organisations, including effective project management and monitoring and evaluation. However, specific challenges included limitations in technical expertise, availability of climate change data and information for designing and implementing adaptation measures, and in communicating climate change issues to the local people.

In conclusion, climate change adaptation, poverty reduction, the maintenance of sustainable livelihoods, natural resource management, disaster risk reduction and community development in the context of a changing climate change are intimately interlinked and must be considered as such by the Government at national and local levels.

Disaster risk management is not yet well integrated into social protection policies and initiatives

65. Viet Nam's 2011 interim report to the Global Assessment Report on Disaster Risk Reduction identifies significant weaknesses in social protection for natural disasters. These include in particular the lack of a systematic approach to disaster risk insurance schemes, social safety nets, and cash transfers. While crop insurance is available, very few farmers pay into it. Livestock insurance schemes have to date been unsuccessful. Risk financing and/or catastrophic insurance is not yet available in Viet Nam; although risk insurance schemes in the agricultural sector are being piloted in 16 provinces from 2011-2013.⁹⁵

66. A significant shift is now required in disaster risk management policy and programmes towards a much more comprehensive approach to disaster risk reduction. This would include placing greater focus on protecting people's livelihoods as well as their lives. Measures to protect human life, such as flood protection measures, cyclone warning and evacuations, where relevant, are essential. However it is also vital to reduce people's assets and livelihood losses so that they do not become poor. An adaptive, comprehensive and integrated social protection system is needed to effectively reduce vulnerability and promote resilience to shocks of any origin.⁹⁶ As hazards and climate change do not only affect the poor, but also

⁹⁵Disaster Management Center, Ministry of Agriculture and Rural Development 2009 *Viet Nam National progress report on the implementation of the Hyogo Framework for Action (2009-2011)* Interim report

⁹⁶Davies, M. [et al] 2009 'Climate Change Adaptation, Disaster Risk Reduction and Social Protection' pp 201-217 in *OECD Promoting Pro-Poor Growth: Social Protection*, OECD, Paris

the near poor and the middle class, a much more flexible system for providing assistance is required, together with more frequent monitoring of the impact of shocks as discussed earlier.

67. At present however, Viet Nam's social protection system remains fragmented, with gaps in coverage, targeting and implementation. Social protection policies and programmes must integrate and incorporate adaptation and disaster risk reduction approaches to ensure programmes support livelihoods and protect the poor and vulnerable from shocks and risks whether they are economic or disaster and climate change related. Globally, evidence shows that four types of social protection promote equity and environmental objectives: cash transfers, employment schemes, weather based crop insurance and asset transfers.⁹⁷ A comprehensive, universal social protection system would aim to support coping mechanisms and build adaptive strategies, and would include provision of basic social services; social assistance including food and cash transfers; social pension schemes; social, unemployment and health insurance; access to credit including micro-finance; public works programmes; asset protection; and risk and crop insurance.⁹⁸ Social protection is critical to help the poor and vulnerable prevent and overcome periods of transient poverty. Support to SMEs including insurance and access to reconstruction financing support and affordable credit are also important to generate employment and kick-start the economy again following major disasters and climatic events.
68. A comprehensive, integrated approach to social protection is not only important to promote resilience and reduce vulnerability to shocks, but also to provide support to people throughout the lifecycle – during periods of specific vulnerability such as childhood, early adulthood and transition into the labour market, and old age. It can also help to alleviate socio-economic inequality and disadvantage, by promoting greater resilience and providing opportunities for example among women and ethnic minorities. This is particularly important given the likelihood of continued vulnerability to economic instability and to disasters and climate change.

UN experience – Emergency Market Mapping and Analysis (EMMA) in Quang Binh province in the aftermath of serious flooding in 2010⁹⁹

Torrential rains in September and October 2010 caused record high flooding in a number of provinces in central Viet Nam, with an average rainfall of 300 to 800mm. Quang Binh province was among the most severely hit with rainfall recorded at 1,600mm, reaching a 20 year high. Further heavy rainfall in the area (800 to 1100mm) caused flooding in more than 80 villages in Quang Binh. Over 357 houses were damaged or completely destroyed. By the end of October, there were 53,520 houses flooded. Le Thuy district was one of the districts hardest hit with over 35,600 households or 141,500 people affected - almost the entire district. Household livelihood capacity and local livelihood systems were severely impacted: rice and rice seed stocks washed away, farm implements lost and livestock drowned.

In response to the floods - for the first time in Viet Nam - Emergency Market Mapping and Analysis (EMMA), a rapid market analysis designed to be used in the short term aftermath of a sudden onset crisis – was utilised.

The rationale behind EMMA is that a better understanding of the most critical markets in an emergency situation enables decision makers, including donors, I/NGOs, the Government and other

⁹⁷ UNDP 2011 *Human Development Report 2011 Sustainability and Equity: A Better Future for All*. UNDP, New York: 59

⁹⁸ Davies, M. [et al] 2009 'Climate Change Adaptation, Disaster Risk Reduction and Social Protection' pp 201-217 in OECD *Promoting Pro-Poor Growth: Social Protection*, OECD, Paris

⁹⁹ Emergency Market Mapping and Analysis (EMMA) report,; *The pig and chicken market in Le Thuy District, Quang Binh province, Viet Nam*, 11-14th December 2010

humanitarian actors to consider a broader range of responses. EMMA is intended to be neither statistically significant nor to replace existing emergency assessments, or more thorough household and economic analyses such as Emergency Food Security and Livelihood assessments (EFSL), any sector specific in-depth assessments or full market assessments. Instead it should add to the body of knowledge in the post-crisis period by providing timely information about the structure and functioning of main markets in the short term so that immediate programming can be based on comprehensive market information.

In early December 2010, an EMMA was undertaken by a team of UNDP, Disaster Management Centre (Ministry of Agriculture and Rural Development) and Oxfam staff of two critical livestock market systems: pigs and chicken and the impact of the floods on the most vulnerable target groups identified as being small-scale (female) farmers involved in pig or chicken-raising. Within a few days the team produced a comprehensive report with the following recommendations:

- Phased piglet/chicken provision - to (female) farmers, including vaccination for existing livestock, (noting the farmers' preferences for chickens instead of pigs as investment and maintenance costs for pigs are higher)
- Cash grants - to (female) farmers, as cash is the main preference of farmers
- Cash vouchers - to affected (female) farmers to buy piglets/chicken from medium-scale farmers, benefiting farmers as well as medium-scale farmers
- Micro-credit or loans - to medium-scale farmers, in combination with other response options targeting farmers.

In 2011, preparations were made for further EMMAs, with refresher training provided to UN, INGO, Government and mass organisation staff. It is anticipated that such teams will become a regular part of the inter-agency/Government response to disasters in the coming years.

Policy implications

- ❖ *Disaster risk reduction must be better integrated in Viet Nam's social protection system; including via initiatives such as crop insurance and risk and catastrophic insurance.*
- ❖ *Government must ensure that sufficient contingency funds at central, provincial and local level are in place and that adequate capacities and channels are in place to transfer funds in case of a disaster or climatic event.*
- ❖ *Strengthen implementation of the Government's community based disaster risk management programme.*
- ❖ *A comprehensive, integrated approach to social protection which includes access to basic social services, social assistance, insurance, access to credit, and public works programmes is needed to reduce vulnerability and promote resilience. Design and implementation of such a system must take account of and integrate the specific situation and needs of vulnerable groups, including women, children, ethnic minorities and the elderly.*

VI. GREATER INVESTMENT AND CAPACITY IS NEEDED IN FINANCING, INTEGRATING AND MANAGING NATIONAL SYSTEMS FOR SUSTAINABLE POVERTY REDUCTION, SOCIAL PROTECTION AND DISASTER RISK MANAGEMENT

Policy frameworks are in place but greater investment and capacity is needed to ensure an integrated and effective response

69. The Government of Viet Nam has in place a robust set of policy and legislative frameworks designed to address poverty reduction, social protection, and disaster risk management and to respond to the challenge of climate change. These include social protection measures introduced under Resolution 11 on macro-economic reform to combat the impact of economic shocks; together with Resolution 80, the National Target Programme on Poverty Reduction and the new Master Plan on some Social Policies (Social Protection), which aim to promote a more integrated approach to poverty and social protection initiatives. In addition, the National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020 (2007), the National Strategy and National Target Programme to Respond to Climate Change (2008); the National Programme for Community Based Disaster Risk Management (2009) and the draft Law on Prevention, Control and Mitigation of Natural Disasters (expected to be passed by the National Assembly in 2013) set out a national framework for climate change adaptation and mitigation and disaster risk management.
70. Greater investment and capacity is however needed to ensure integrated and effective poverty reduction, social protection and disaster risk management. At present, Viet Nam's policy instruments and major national programmes remain fragmented, with significant gaps in coverage, difficulties in targeting, and uneven implementation at the sub-national level. This is a policy challenge as there are many related and overlapping policy documents and frameworks which are not always well integrated, an implementation challenge as guidance, resources and capacity to carry out nationally defined policies is often limited and a funding challenge, as fiscal space for a comprehensive social protection system is currently constrained.
71. The social protection system in Viet Nam is comprised of social security (social insurance, health insurance and unemployment insurance), social assistance (regular allowances for specific groups who are unable to work and emergency relief), area based programmes (e.g. the NTP-Poverty Reduction and Programme 135 Phase II (P135-II) and labour market policies including job generation. Social security and social assistance account for the bulk of total Government expenditure. Only 2 percent of expenditure went to labour market programmes. Emergency relief for natural disasters accounted for an estimated 0.3 percent of GDP in 2009.¹⁰⁰
72. Coverage levels in 2008 were relatively higher for health insurance, which is free for certain vulnerable population groups, at 57 percent than for social insurance which covers an estimated 11 percent of the population and 18 percent of the labour force. Excluding benefits under the NTP-PR and P135II, an estimated 1.2 percent of the population received regular social assistance (the elderly, people with disabilities, single parents, orphans, people with mental illnesses, etc).¹⁰¹ Occasional social assistance is also provided to so-called 'victims' of natural disasters and epidemics. Much of the expenditure under area-based and poverty targeted programmes, including the NTP for Poverty Reduction and P135-II is targeted to

¹⁰⁰Figures cited in VASS 2011 *Poverty Reduction in Vietnam: Achievements and Challenges*: 38-39

¹⁰¹Ibid: 38-39

infrastructure, together with access to credit, health insurance, education, housing, clean water, agricultural extension services, and state subsidies for education and health services.

73. Viet Nam spends an estimated 4.1 percent of GDP on social protection, which is lower than the average for the Asia-Pacific region. Around 40 percent of the population receives some form of social protection. However, Viet Nam is estimated to have a higher level of coverage of the poor than other countries, at 71 percent: in other words 71 percent of the poor receive some kind of benefit or support.¹⁰² At issue is the extent of coverage of major initiatives such as social insurance, which does not cover the majority of workers who are in the informal economy. In addition, the level of benefit provided is often very low. Overall, social protection accounts for just 17 percent of per capita income of the poor.¹⁰³ Targeting of assistance also remains an issue as near-poor households, informal workers and migrants are often excluded from receiving assistance. As a majority of women are concentrated in the informal and unpaid sectors, they are specifically disadvantaged in terms of access to a range of social protection benefits. In addition allocation of benefits targeting the poor is implemented inconsistently at the local level.¹⁰⁴
74. The 2011 RIM assessment confirms this. Firstly, vulnerable and at-risk individuals and households, including migrants and the near-poor are excluded from accessing social safety nets. Secondly, constraints remain in terms of access to information, complex procedures and informal costs, and the capacity of local officials administering specific initiatives. Thirdly, benefit levels are typically set low, for example social assistance has not kept pace with the minimum wage or inflation and was estimated to have fallen from 26.7 percent of the minimum wage in 2007 to 21.7 percent in 2011.¹⁰⁵ In addition, coverage of specific social protection initiatives remains limited: examples include voluntary health insurance and crop insurance.
75. The National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020¹⁰⁶ outlines the country's main disaster risk management framework. This framework, which focuses mainly on water-related disasters, has a budget of US\$18 billion, of which around US\$11.3 billion is for structural measures such as reservoirs, safe harbours, dams and dykes, and US\$1.4 billion for non-structural measures. Government investment in disaster risk management has focused traditionally on mitigation, with a strong emphasis on structural measures, such as dykes and seawalls. The country has over 10,600km of 6-9m high river dykes and 2,600km of 3.5-5m high sea dykes that need further expansion and reinforcement. The Government has invested considerably in the dyke system and has ambitious plans to expand this over the coming decade. Much of the coastline is, or could be, protected by mangrove forest, which militates against the impact of tropical storms, typhoons, sea surge and tsunamis.¹⁰⁷
76. Emphasis on structural measures and post-disaster assistance has arguably led to a number of (unintended) negative effects, including lower risk management capacity, greater impacts of disasters, and lagging and more costly disaster financing. Reliance on these measures

¹⁰²Baluch et al 2008 *Social Protection Index for Committed Poverty Reduction. Volume 2: Asia*. ADB, Manila

¹⁰³Ibid

¹⁰⁴VASS *Rapid Impact Monitoring 2011 Synthesis Report*, Hanoi October 2011

¹⁰⁵Ibid: 47

¹⁰⁶The 2007 Strategy outlines different approaches and solutions to natural hazards affecting different regions of the country and addresses community awareness raising and information dissemination; disaster response building; inclusion of DRM in the school curriculum; and training for those involved in DRM. It stresses the importance of building resilience to disasters and promotes the role of mass organizations in disaster response and recovery.

¹⁰⁷Wilderspin, I. [et al] 2011 UNISDR, 'Building resilience to flood and typhoon hazards in Viet Nam' in UNISDR 2011 *Risk Returns* UNISDR, Geneva

has also created disincentives to implement more proactive disaster risk management, including investment in preparedness and reducing risk to vulnerable communities through non-structural or 'soft' measures. There has also been less incentive to exploit a broader range of disaster risk management tools and approaches, including innovative risk transfer financing. These tools and risk markets are available, but a catalyst is needed to bridge gaps between the country's capacity and private market support. In effect, a bias towards post-event disaster risk finance has constrained the development of risk management capacity and skills. This post-disaster focus creates significant opportunity costs in terms of redirected project funding, long delays in the receipt of funds and sometimes misdirected investment geared to donor priorities rather than to the country's needs.

Challenges in integration and coordination of policy and programme responses and adaptation to the needs of communities and specific socio-economic groups remain

77. With constraints in available resources for social protection, poverty reduction and disaster risk management, limited coverage of some initiatives, and low levels of assistance, addressing continued fragmentation, overlap and inefficiencies in implementation must be accorded greater priority. Viet Nam needs to act now to streamline and integrate initiatives across different sectors, broaden the coverage and depth of assistance provided, and ensure vulnerable groups are not barred from accessing assistance and support due to their migrant or near-poor status.
78. Resolution 80 sets out the Government's intention to create an integrated poverty reduction system, by piloting block grants in poor area, making all Ministries and sectors responsible for poverty reduction, and piloting new and innovative models for poverty reduction. The draft Party Resolution on Some Social Policies, which is currently under development, appears to reform and unify management responsibilities for social protection programs and policies and could potentially lead to better integration and reduced fragmentation. Furthermore, it promotes the research and development of two new schemes: a Program on Public Employment and a general assistance package for poor households. Nevertheless, questions remain about how these new schemes will fit with the current social assistance system and whether a comprehensive overhaul of the system will be required. In addition, it will be important that this long expected social protection plan contains reform measures to move towards an integrated and coherent social protection system.
79. Creating sufficient fiscal space for such a comprehensive system will be challenging, particularly in the current macroeconomic climate, and requires a shift in Government spending priorities. The ambitious economic restructuring agenda focuses on enhancing public investment efficiencies, banking sector and State-owned Enterprise (SOE) reforms. In the short-term this restructuring agenda, particularly addressing the non-performing loans and contingent liabilities, will require significant public resources. Improving the efficiency of public investments will therefore be important in freeing up fiscal space for expanding social protection schemes.
80. In practice, responsibility for social protection and poverty reduction initiatives continues to be divided between different Government agencies and even departments within Ministries. Coordination is limited and often programmes exist and are implemented in parallel. A 2009 review by the Social Affairs Committee of the National Assembly found 41 different poverty reduction initiatives, including the major poverty reduction programmes, the NTP-PR and P135-II, and various sectoral programmes. A recent study on ethnic minority poverty identified overlapping design, and overlapping responsibility for implementation among

responsible agencies as challenges to effective implementation.¹⁰⁸ Such a proliferation of policies and programmes, and responsible institutions, makes coordination extremely difficult and hinders efficiency.

81. Similarly, a review of disaster risk management and climate change policies identified a plethora of relevant policies and legislation and identified the following challenges to policy implementation.¹⁰⁹ There is a lack of horizontal integration between the different agencies and ministries responsible for climate change and disaster risk management, which creates silos and barriers to coordination. Policies are communicated down to the provincial level, but often without clear plans and guidance as to how they should be implemented. Budgets and resources are often limited in particular at the provincial level. Monitoring and evaluation and reporting mechanisms to support transparency, accountability and improvement are lacking. Finally, there are significant constraints to effectively engaging the most vulnerable households and communities, including remoteness, language, gender roles, and capacity (including time) to participate effectively. These are exacerbated by capacity gaps of local staff with responsibility for implementation.
82. In addition to fragmentation at a policy level and constraints to implementation, challenges remain in adapting poverty reduction, social protection and disaster risk management policies and programmes in different contexts and to the needs of different socio-economic groups. Anecdotal evidence from the 2012 review of the National Strategy for Natural Disaster Prevention, Response and Mitigation to 2020 highlights this: provinces report that there is a need to better prioritise allocation of resources based on the specific needs and conditions of provinces, districts and communes, as well as to ensure policies such as Community-Based Disaster Risk Management are understood and implemented by communities on the ground. In addition, while national policies and programmes for disaster prevention and climate change recognise the importance of incorporating principles such as gender equality, and of mitigating impacts on vulnerable groups, in practice stereotypes regarding women and men's roles in disasters continue to prevail and gender equality is not well addressed in policy and programme implementation.
83. Similarly, a review of the impact of the P135-II Programme identifies gaps in implementation and constraints to achieving poverty reduction for ethnic minority groups. Ethnic minorities continued to report a shortage of crucial goods and services, were less likely to utilize both infrastructure and services, less well-integrated into commercial networks, and less likely to produce the kinds of crops that generate significant income. Significant gaps between ethnic minority groups persist, with larger population groups, and those who speak Vietnamese, doing better than others. To date, programmes have not yet effectively addressed information needs and barriers to access. Provision of access to land, infrastructure and assets alone is not sufficient to tackle multi-faceted ethnic minority poverty.¹¹⁰ Thus, 'one size fits all' approaches are no longer appropriate, and community based approaches, which are tailored to specific ethnic and cultural groups, as well as to the needs of specific localities, are required. Greater involvement of communities in planning and budgeting processes is also needed. Finally, social services must be more responsive to the needs of the specific communities and localities they serve. Adaptation and disaster preparedness is an important feature of such responsiveness.

¹⁰⁸ CEMA and UNDP 2011 *Poverty of Ethnic Minorities in Viet Nam: Situation and Challenges in Programme P135 Phase II Communes, 2006-07* CEMA and UNDP, Hanoi

¹⁰⁹ Asia Management and Development Institute Viet Nam & the Pressure Group Consultancy, UK 2011 *Climate Change and Disaster Management Policy in Viet Nam* :4

¹¹⁰ CEMA and UNDP 2011 *Poverty of Ethnic Minorities in Viet Nam: Situation and Challenges in Programme P135 Phase II Communes, 2006-07*. CEMA and UNDP, Hanoi

UN experience: Helping social services respond to disasters and climate change.

UN agencies have been working closely with the Government of Viet Nam to support disaster preparedness in health and education. In the health sector, UNFPA has supported the Ministry of Health to develop the National Action Plan for the Health Sector response to Natural Disasters, 2011-2020, following the approval of the National Strategy for Management of Natural Disasters in Viet Nam 2020. The National Action Plan aims to strengthen the effectiveness of the Ministry of Health in coordinating health preparedness, intervention and response to disasters. UNFPA has also supported the Ministry of Health to develop a national list of essential drugs and medical instruments for use in disasters and training packages on health responses to disasters for health managers and health service providers.

The education sector has developed unified and comprehensive guidelines for supporting quality education in emergency situations based on internationally recognized Minimum Standards for Education: Preparedness, and Response Recovery. With support from UNESCO, these standards, produced by The Inter-Agency Network for Education in Emergencies (INEE), were introduced to Viet Nam through a contextualization process which resulted in the development of detailed guidelines – including suggested actions and methods – to support the whole education sector from schools up to the ministerial level to meet these standards. A self-assessment tool was developed to support schools to engage the local community to identify risks and threats as a disaster risk reduction strategy and ensure greater responsiveness to school specific needs and vulnerabilities. The initiative has also enhanced school directors' capacities to manage disaster risks and built a network between schools, local communities and authorities through targeted training events.

Together with other donors UNICEF has supported MoET to develop an Action Plan to implement the National Strategy 2020. A study on Education Emergency Lessons Learned in four countries including Viet Nam conducted in 2010, included Quang Tri province which was struck by Typhoon Ketsana in September 2009. Over 200 schools and approximately 5,500 classrooms were damaged by strong winds and heavy flooding. Prior to the disaster, an education network existed in Quang Tri province, this allowed quick access to focal persons and assisted in the coordination of the overall education response. The Cluster mechanism facilitated communication between different agencies and helped raised the profile of humanitarian needs, in particular for support to teachers and children. Basic supplies were delivered directly to districts and schools in collaboration in provincial and district Ministries. Dak Ha Pre-school had a basic school emergency plan which included providing messages to children in school lessons. The plan was shared with all parents prior to the emergency in 2009. Based on the findings of the study, UNICEF has developed an MoU to support education emergency coordination with the Ministry of Education and Training (MoET) and Save the Children.

Policy implications

- ❖ *Integration of poverty reduction, social protection and disaster risk reduction and climate change adaptation initiatives must take place at a national policy level, supported by effective coordination between responsible agencies. An integrated approach is also needed to facilitate joined-up planning and budget support for these initiatives at sub-national levels. The situation and needs of specific vulnerable groups must be integrated across all sectors and at all levels.*
- ❖ *Improving efficiencies in implementation of social protection, poverty reduction and disaster risk management initiatives is essential in a context of limited resources. However, Viet Nam should continue to prioritise investment in social sectors, including by improving efficiency of public investment in economic development and infrastructure.*

- ❖ *Promote public and private partnerships for disaster risk reduction, climate change adaptation, and disaster risk financing.*
- ❖ *Adaptation and disaster preparedness of basic social services, in particular schools and health facilities is critical to facilitate access to these essential services.*

CONCLUSION

This paper has outlined the essential connections between poverty reduction, social protection, disaster risk management and climate change. The paper also has highlighted a number of important themes that cut across these different areas and current policy and programme responses.

Firstly, a better understanding of both the changing characteristics of poverty and vulnerability, and the nexus between disasters, climate change and poverty, including the costs of disasters and climate change to households and SMEs, is required.

Secondly, there is a need at both the national and sub-national levels, for a comprehensive, integrated and effectively coordinated policy and programme response to ensure that sustainable poverty reduction, access to social protection, disaster risk management and action to address climate change, is able to reduce vulnerability to different kinds of shocks and promote greater resilience of households and communities. In order to be effective, coordination must be high level and cross-sectoral to cut across existing policy and implementation silos.

Thirdly, it is critical to build on Viet Nam's successful track record in mitigating and responding to disasters, to ensure a more effective, longer-term and holistic approach to disasters and climate change that focuses on reducing risk and protecting people's lives and livelihoods.

Fourthly, there is a need for a more effective public investment regime, one which both integrates and addresses environmental and social impacts, and that also promotes greater efficiency so as to free up much needed resources for social expenditure. This, in turn, requires good governance and more effective public management of investment decisions, in particular those which impact on the environment and on people's lives, livelihoods and opportunities.

Finally, greater priority needs to be given to scaling up community based engagement and ensuring greater participation in planning and investment decisions and in disaster risk management at a local level. Given the challenges associated with the continuing need to reduce poverty and the pressing and increasing threat disasters and climate change pose to sustaining Viet Nam's development progress, a more effective, coordinated and participatory approach is essential to more successfully recognise and respond to the strong causal relationship between poverty, disasters and climate change and to continue to improve the lives and living standards of the Vietnamese people and achieve sustainable, equitable development.

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