Climate Change

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Mainstreaming climate change resilience into development planning in Cambodia

Phirum Am, Emanuele Cuccillato,
Johnson Nkem and Julien Chevillard

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Cambodia Climate Change Alliance (CCCA)

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About the authors

Phirum Am is Deputy Head of the Cambodian Agricultural Land Resources Management Department, and a member of the Climate Change Technical Team.

E-mail: amphirum@yahoo.com

Emanuele Cuccillato is Monitoring and Evaluation Adviser for the Cambodian Ministry of Environment's Climate Change Alliance Programme.

E-mail: ec@sphereworld.org

Johnson Nkem is Technical Specialist for the Cambodian Ministry of Environment's Climate Change Alliance Programme.

E-mail: johnson.nkem@undp.org

Julien Chevillard is Trust Fund Administrator for the Cambodian Ministry of Environment's Climate Change Alliance Programme.

E-mail: julien.chevillard@undp.org

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The Agricultural Land Resources Management Department is part of the General Directorate of Agriculture in the Cambodian Government's Ministry of Agriculture, Forestry and Fisheries.

The Cambodia Climate Change Alliance (CCCA) is an innovative initiative to address climate change and disaster risks, led by the Cambodian Ministry of Environment and funded by the EU, Sweden, Denmark and UNDP. It is anchored in the Government's National Climate Change Committee.

The International Institute for Environment and Development (IIED) is an independent, non-profit organisation promoting sustainable patterns of world development through collaborative research, policy studies, networking and knowledge dissemination. IIED's Climate Change Group works with partners to help secure fair and equitable solutions to climate change by combining appropriate support for adaptation by the poor in low and middle income countries, with ambitious and practical mitigation targets.

Introduction

Climate change impacts are likely to undermine planned development outcomes in a number of countries, and pose significant challenges for the resilience of many livelihoods and ecosystems. Development planning responses play an important role in addressing these challenges, and integrating climate change resilience into these responses is fast emerging as a major policy agenda item.

Between November 2011 and October 2012, government staff from diverse backgrounds came together at a course facilitated by the International Institute for Environment and Development (IIED) at the International Centre for Climate Change and Development (ICCCAD) to share and reflect on their countries' experience and needs around integrating climate change into development planning. Based on these discussions, they identified three building blocks for successful mainstreaming: an enabling environment, policies and planning, and projects and programmes.

The enabling environment for mainstreaming includes the political will to make climate policy and the information services that guide it. The second block — planning and policy — includes policy frameworks together with institutional arrangements and finance mechanisms. The projects and programmes block takes mainstreaming to the project level. The three blocks are non-hierarchical and non-sequential; in some cases, strategic planning led by technocrats may come before high-level political will, or a country may be pursuing important development goals mainly through individual projects.

This country paper reflects Cambodia's experience against this building blocks framework.

1. Enabling environment

1.1 Political will

Cambodia has been ranked as the country second most affected by extreme-weather events in 2011, with a GDP loss of 3.1 per cent by one estimate (Harmeling, 2012).

The government is fully committed to global efforts to address climate change. Cambodia ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1995. The Initial National Communication (INC) was submitted to the 8th Conference of the Parties to the UNFCCC in 2002, and the second is being prepared. It also developed a National Adaptation Programme of Action (NAPA), approved in 2006.

There is a growing awareness at the highest political level of the threat that climate change poses to development. For example, Prime Minister Hun Sen engages with climate change issues, as do other high-ranking ministry officials.

Evidence of the political will to deal with climate change includes action taken during the past decade for developing appropriate institutional arrangements. The National Climate Change Committee (NCCC), chaired by the Prime Minister, was established in 2006, involving representatives from 20 ministries and three government agencies. The Ministry of the Environment is the leading ministry and permanent chair of the committee. Secretaries of State from three key ministries are vice-chairs: agriculture, forestry and fisheries; water resources

Table 1. Summary of data and methods of the Initial and Second National Communications.[1]

Highlights from Cambodia's initial national communication
■ Long-term climate change and climate-related impacts were assessed for Cambodia using two models developed by the Center for Climate Research Studies and the Commonwealth Scientific and Industrial Research Organization.
■ Scenarios used were for high and low emissions.
■ Potential impacts on temperature, rainfall, agriculture, forestry, human health and coastal zone were discussed.
■ Adaptation options were given in broad terms.
Highlights from Cambodia's second national communication draft
■ Data was generated using the UK Met Office PRECIS regional climate model for scenario development and MAGIC-SCENGEN.[2]
■ Climate change scenarios were developed using 14 models with high- and low-emission scenarios.
■ The Decisions Support System for Agrotechnology Transfer model was used for agricultural impact assessment.
■ A soil-water balance model was used to evaluate the impact of climate change on agriculture.
■ The impact of climate change on the forestry sector was evaluated.
■ A coastal susceptibility index was developed to assess the potential impacts of climate change on coastal communities and the impact of a sea-level rise of a metre assessed.
■ An overall vulnerability index was developed using community-level data.

[1] Source: (PPCR, 2013a)

[2] Software that takes emissions scenarios for greenhouse gases, reactive gases, and sulphur dioxide as input and gives global-mean temperature, sea level rise, and regional climate as output (UNFCCC).

and meteorology; industry, mines and energy. Twelve other ministries are represented by Under-Secretaries of State.

1.2 Information services

A number of initiatives have contributed to improved understanding of current and future vulnerabilities to climate change; vulnerability assessments have been conducted at national level, but tools and approaches used so far in Cambodia are largely limited to assessment of impact and vulnerability, while screening tools used to identify the climate risk to public sector development interventions and investments have not been used (PPCR, 2013a).

A recent government study conducted with the support of the Pilot Program for Climate Resilience (PPCR, 2013b) has reviewed over 30 studies related to climate vulnerability and adaptation in Cambodia. This indicates that while the vulnerability assessment uses indicators and indices to analyse vulnerability to climate change, results are often contradictory and not comparable because of differences in the objectives, geographical scope and methodologies used.

The hydrometeorological observation network of Cambodia is fragmented and spatially inadequate for optimal data collection. A limited national budget is available for operation and maintenance, resulting in stations deteriorating and insufficient field personnel. Data generated is mainly used for flood forecasting. Data availability and quality are still limited and there is a need to develop modelling services to meet the climate risk management needs of various sectors such as agriculture, water, power and infrastructure. The Mekong River Commission maintains additional hydrometeorological stations on Mekong tributaries (PPCR, 2013c).

Ministries are responsible for collecting and managing statistical data in their area of competence and the National Institute of Statistics (NIS) maintains databases and conducts regular surveys at national level. The commune database, also managed by NIS, is a valuable source of information for monitoring changes to climate vulnerability of communities (visit www.nis.gov.kh).

While there is a growing body of information that could support decision making in climate change policy development and planning, barriers to use still exist; these include data exchange and harmonisation among ministries, limited capacities, and lack of evidence-based tools in decision making.

2. Policy and planning

2.1 Policy frameworks

The development policy framework is defined by the government's Rectangular Strategy for Growth, Employment, Equity and Efficiency 2008–2013, and the National Strategic Development Plan (NSDP) 2009–2013. The four key strategies for accelerating economic growth have been defined as enhancement of agriculture, private sector development and employment, infrastructure, and capacity building and human resources. The NSDP builds on other key national plans and strategies intended to ensure Cambodia's rapid progress towards achieving the Millennium Development Goals (MDG).

The primary climate-related policy framework for adaptation is the NAPA (published in October 2006), which supports the government's development objectives as outlined in the Rectangular Strategy, and its priorities should be integrated into national sectoral or local development plans. Most NAPA projects are related to agriculture, water resources, rural development and human health. The Strategic National Action Plan for Disaster Risk Reduction 2008–2013 (SNAP) is another entry point for mainstreaming climate change.

While there are several government strategies and policies related to climate-resilient development, the principal climate-related policy focus has so far been on post-disaster emergency relief. Climate change impacts pose potential challenges to achievement of development targets set in the NSDP and it could reverse the achievements of national development programmes. The entry point for mainstreaming climate change into national development processes, therefore, starts with capturing climate change in national and sectoral plans and strategies.

The Ministry of the Environment leads the current process of developing the Cambodia Climate Change Strategic Plan (CCCSP), which determines the strategies for adaptation and mitigation. Nine ministries in priority sectors are actively engaged in strategic planning and are developing Sectoral Climate Change Strategic Plans under the overall framework of the CCCSP. The Ministry of the Environment, with the support of the multi-stakeholder Cambodia Climate Change Alliance (CCCA), has facilitated and supported the overall process. A participatory approach has been used, which included consultations with key stakeholders; a round of consultation with civil society, NGOs, and the academic and private sectors was recently concluded. An innovative and important aspect of the CCCSP process is its interdisciplinary and inclusive approach, which has brought together several key ministries and stakeholders. The CCCSP also aims at establishing a national Climate Change Monitoring and Evaluation framework as well a climate change financing framework.

The CCCSP, therefore, provides an overarching national framework for addressing climate change across all sectors, regions and administrative units of government. It also provides a framework for nationwide engagement, mobilisation of resources and capacity development in both the public and private sector in managing climate risks now and in the future.

The development of the CCCSP is well synchronised with the process of revision of the NSDP for the next five years; this provides an excellent window of opportunity for mainstreaming climate change in the national development process. The CCCSP is, in fact, designed to enable and complement the mainstreaming of climate change in the implementation of the NSDP. Similarly, sectoral climate change strategies aim to support development strategies.

As climate change is mainstreamed into national strategic processes, it is important to have an alignment with sectoral, local and regional (such as coastal zones, the Mekong river basin) strategies, which provide networks for implementation.

The need for such an alignment does not apply simply to climate change; it is recognised by the government as an important aspect in optimising the implementation of national development programmes through improved coordination between the national and sectoral strategies. In recognition of this problem and taking steps to address it, the Council of Ministers in 2011 adopted guidelines for the preparation and development of policies and strategic and action plans, characterising the institutional guidelines for mainstreaming. The Strategic Framework for Decentralization and De-concentration and the plan for Decentralization and De-concentration under the National Programme for Sub-National

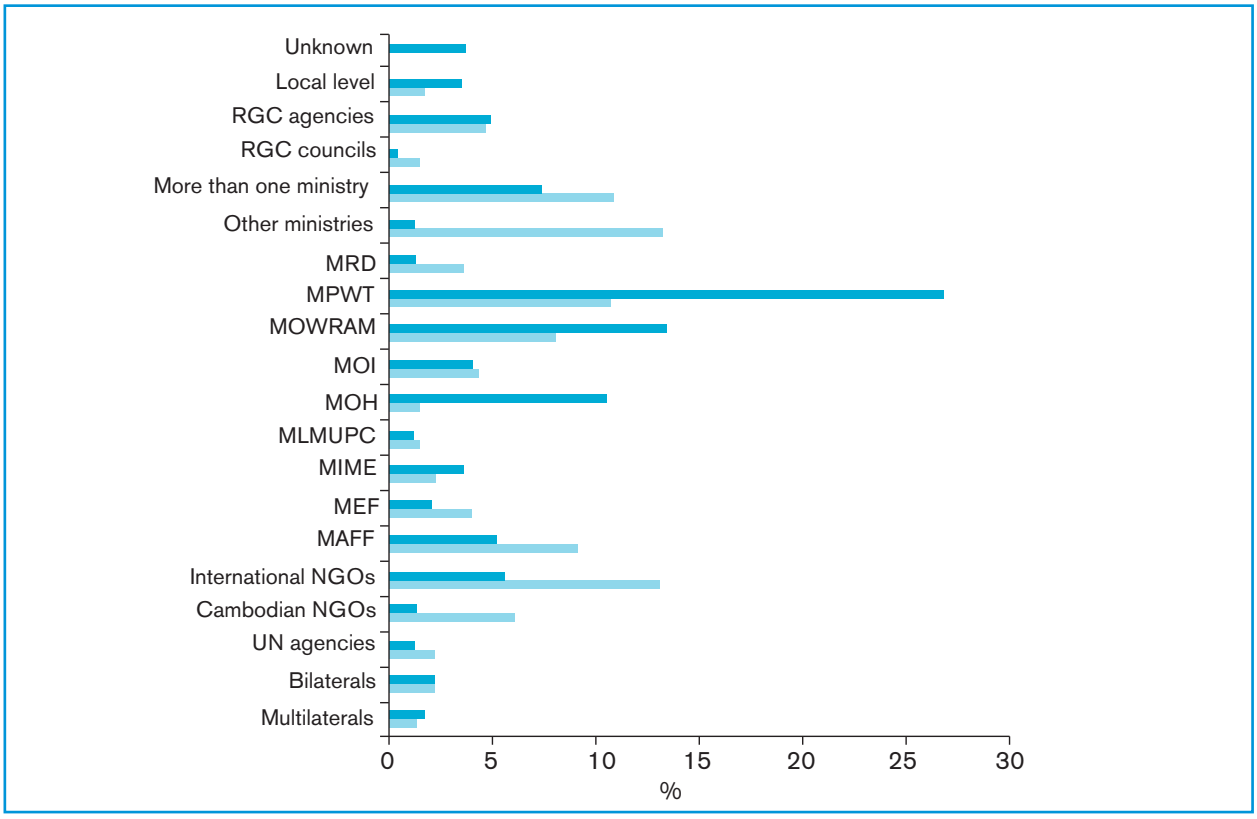
Democratic Development (NP-SNDD) 2010–2019 are important entry points for climate change mainstreaming at sub-national and local levels.

Agriculture and water are very important sectors for national development, and key in addressing climate vulnerability. The Agriculture Strategic Development Plan 2009–2013 aims to increase agricultural production, diversify agriculture, and expand agro-industry. In 2010, the government approved a policy paper on rice production, aimed at promoting agriculture at a pace and scale that will strengthen the foundations of economic growth, accelerate poverty reduction, and improve livelihoods. There is untapped potential in Cambodia's rice paddies, and the government intends to turn the country into a major exporter of this 'white gold'. However, there is no consideration of climate change impacts on rice in the policy paper, which makes it crucial to mainstream climate change into the national policy on rice production in order to achieve the desirable target as a major exporter.

2.2 Institutional arrangements

The Ministry of the Environment is the climate change focal point. In 2003 the Cambodian Climate Change Office was established in the Ministry of the Environment as the technical unit in charge of climate change activities. The NCCC was established in 2006 as a high-level policymaking body. An inter-ministerial mechanism, the NCCC is cross-sectoral and multi-disciplinary in nature; it has the mandate to prepare, coordinate and monitor the implementation of policies, strategies, legal instruments, plans and programmes of the government to address climate change issues. In 2010 the Climate Change Office was upgraded to 'Climate Change

Figure 1. Climate-relevant expenditure by implementing agency. Source: CPEIR, 2012.



Department' (CCD) to strengthen its coordinating role amid growing concern over climate risk management.

A Climate Change Technical Team (CCTT) was established, responsible for technical activities and advice related to climate change issues necessary for the NCCC to fulfil its role. The CCTT is composed of representatives of ministries and other agencies whose mandates are related to climate change issues. The Climate Change Department acts as the secretariat of the NCCC and coordinates the activities of the CCTT. Climate change focal points have been appointed in each ministry to develop strategies, plans and projects.

For the future implementation of the CCCSP and the effective mainstreaming of climate change at national and sub-national level, it will be important to develop enhanced institutional coordination mechanisms between the various ministries involved.

2.3 Financial frameworks

The CCTT has established a sub-group to lead the development of a Climate Change Financing Framework, including the Ministry of Planning, the Council for the Development of Cambodia, the Secretariat of the National Committee for Sub-National Democratic Development, the Ministry of the Environment and the Ministry of Economy and Finance (as coordinator).

A Climate Public Expenditure and Institutional Review (CPEIR) was conducted in 2012. It identified a range of climate expenditures, which were seen to have grown from 14 per cent in 2009 to nearly 17 per cent in 2011. The figures include both on-budget and off-budget funding. Total relevant expenditure on climate in 2011 was estimated at US$769 million. The Ministries of Public Works and Transport, Water Resources and Meteorology, Health, and Agriculture, Forestry and Fisheries were estimated to be spending the bulk of climate-related expenditures (see Figure 1).

Over the 2009–2011 period, an estimated 86 per cent of climate-related expenditures were funded from external sources; 60 per cent of all climate-related expenditures were in the form of 'traditional-sector' projects; 27 per cent came from dedicated climate change contributions of bilateral and regional donors; only 13 per cent came through global climate funds, such as the Climate Investment Funds. This pattern is expected to evolve over the next decade, with an increase in the share of global climate funds.

The national and sectoral strategic plans on climate change are expected to be finalised by June 2013, with support from the Ministry of Environment for costing and prioritisation. As part of the work on the Climate Change Financing Framework, a review of existing financing and aid coordination mechanisms in-country and relevant international experience with financing mechanisms will be conducted in 2013. Refined scenarios on the potential sources and volume of climate change financing for Cambodia will be developed. These workstreams will lead to the formulation of a Climate Change Financing Framework, including recommendations on institutional and financial mechanisms, by the end of 2013, supported by the CCCA and UNDP.

The Ministry of the Environment is currently managing the CCCA trust fund, an innovative mechanism established for strategic funding of pilot projects. Procedures have been put in place for the management of the fund and two calls for proposals have been conducted – providing funding for 21 projects implemented by government and civil society. This experience could underpin a future national climate fund.

3. Programmes and projects

With support from various donors, Cambodia has implemented a number of projects to address climate change mainly through the NAPA and disaster management projects. During 1995–2003, Cambodia has implemented 98 such projects to address institutional strengthening, infrastructure development and human resources. As the NAPA was being written, surveys indicated that in 2006 overall preparedness for extreme climate events and adaptation was low.

No comprehensive assessment of climate adaptation initiatives implemented after 2003 is available, but it has been estimated that at least 60 projects have been implemented or are underway within the NAPA framework.

Only recently did interventions start to move from a project-based to a programme-based approach; initiatives that have adaptation at their core and focus on implementation of concrete adaptation at community level are also relatively new.

The Cambodia Community-Based Adaptation Program (CCBAP) has extensively tested, with promising results, a micro-grant approach, aimed at reducing climate vulnerability at community level. Other large initiatives include the NAPA follow-up programme focused on water and agriculture; the Harvest Project funded by USAID; the Climate Change and Adaptation Initiative of the Mekong River Commission; and the recently concluded Pilot Program for Climate Resilience (PPCR) funded by the Climate Investment Funds (CIF) and jointly implemented by the Asian Development Bank and the World Bank. The SPCR (now managed by the Asian Development Bank) focuses on mainstreaming climate resilience at national and sub-national levels and on the preparation of a Strategic Program for Climate Resilience to be launched during 2013–2014, with a package of seven investment programmes in agriculture, water and infrastructure, and technical assistance for climate change mainstreaming. The total financial envelope is US$ 390 million (of which US$91 million will come from SPCR/CIF), including both grants and loans.

The CCCA, jointly implemented by the Ministry of the Environment and UNDP and funded by UNDP, the EU, Denmark and Sweden, provides support to the Climate Change Department for policy development and coordination, and awareness-raising. It also funds 21 grants implemented by government institutions, NGOs and civil society in sectors that have traditionally received more attention, such as water and agriculture and disaster risk reduction, as well as in fisheries, livestock, human health, and water and sanitation, which are increasingly recognised as critical in the context of Cambodia.

It is important to underline that thanks to all the initiatives mentioned above, there is a growing awareness of the importance of 'lessons learnt' and sharing of best practice, and the identification of modalities for managing funds for the implementation of adaptation. Given that the agricultural sector is a top priority in the national development agenda, the government has funded several projects that are relevant to climate change adaptation, such as:

- **Land management.** Improving soil fertility by promoting use of compost to increasing crop production.
- **Multiple cropping.** Growing different crops year-round, increasing total production and income.
- **Biogas.** Producing biogas from manure to use as energy for cooking and lighting, and also providing organic fertilisers

Conclusion

Climate change priorities have been articulated in the NAPA and in the CCCSP. Entry points for mainstreaming climate change into sub-national planning scales have been identified. These include the Strategic Framework for Decentralisation and De-concentration under the National Programme for Sub-National Democratic Development, and the development of a guideline for mainstreaming climate change into sub-national planning, which is currently being developed through a consultative process. There is also the opportunity for the CCCSP to be integrated into the NSDP in the next planning cycle. Importantly, policymakers have access to initial information on the costs of climate change. Currently there is a shift from project- to programme-based approaches and community-level interventions.

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Table 2. Summary of experience in Cambodia against the building block framework

Enabling environment	
Political will	**Information**
Ratified UNFCCC in 1995 Adopted UNFCCC by Royal Decree in 1996 Submitted the INC to the 8th CoP of the UNFCCC in 2002 National Climate Change committee Prime minister is honourable chair of NCCC Senior minister of MoE is a permanent chair of NCCC 20 ministries and 3 agencies are members	Initial National Communication NAPA Climatic data generated by Department of Meteorology Several vulnerability and impact assessments. Results not comparable as different methodologies are used

Policy and planning		
Policy framework	**Institutional framework**	**Financial framework**
Rectangular Strategy NSDP Strategic framework for D&D Sectoral development strategies. Cambodia Climate Change Strategic Plan (under development) Sectoral Climate Change Strategic plans (9 ministries: MAFF, MIME, MOWRAM, NCDM, MRD, MOH, MPWT, MOEYS, MOWA) Rice policy: planning cycle is 1, 3 and 5 years, climate change not integrated yet	The National Climate Change Committee (NCCC) is the high level inter-ministerial policy making and coordination mechanism The Climate Change department of MoE acts as secretariat of NCCC An inter-ministerial Climate Change Technical Team (CCTT) is responsible for technical activities and advice Some ministries have established climate change units or working groups to respond to climate change	Total relevant expenditure on climate US$769 million. 86% of climate-related expenditure funded by external sources Overall financing framework for climate change under development CCCA trust fund established; co-managed by MoE and UNDP and supported by EU, DANIDA, SIDA, UNDP

Programmes
CCCA PPCR and SPCR CCBAP NAPA Follow-Up Program USAID Harvest Project CCAI of the MRC National Programs in the agriculture and water sector Action plans and priority projects will be developed in 9 sectors involved in the CCCSP

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International Institute for Environment and Development

80-86 Gray's Inn Road, London WC1X 8NH, UK

Tel: +44 (0)20 3463 7399

Fax: +44 (0)20 3514 9055

www.iied.org

Cambodia Climate Change Alliance

Climate Change Department, Ministry of Environment

2nd floor, Room 303B, #48, Samdech Preah Sihanouk Blvd, Phnom Penh, Cambodia

Tel: (+855-23) 218370

E-mail: cceap@online.com.kh

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