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Tracking Adaptation and Measuring Development (TAMD) in Ghana, Kenya, Mozambique, Nepal, Pakistan

Scoping for development

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Ghana, Kenya, Mozambique, Nepal and Pakistan

Summary Report

May 2013

Executive Summary

The scale of climate change adaptation investments demands robust assessments of the expected and actual returns. It is important to know how effectively adaptation keeps development on track and also how equitably adaptation costs and benefits are distributed.

It is anticipated that the Tracking Adaptation and Measuring Development (TAMD) approach[1] will enable governments and climate finance providers to better assess the developmental impacts of their climate adaptation interventions. This will be done through developing and testing a national framework with policymakers and implementers. The framework's purpose is to ensure that adaptation investments lead to climate resilient development, and the goal is that development trajectories are maintained despite climate change effects. The eventual impact will be strengthened national accountability for adaptation investments.

Five case countries have been initially considered, and scoping studies were carried out to see if there were suitable circumstances for developing and testing a TAMD framework. It is important that the evaluative framework is tested under a range of circumstances in several countries. Nepal, Pakistan, Kenya, Mozambique and Ghana were chosen.

The scoping phase has established the current situation in each of the case countries in terms of the policy context, climate change policy development, adaptation interventions and M&E frameworks. Large differences were encountered in the national circumstances with regard to climate policy development and adaptation implementation. The steps taken towards mainstreaming climate adaptation into policy planning and implementation vary. Nepal has moved furthest in terms of adaptation planning and the accrual of outside investments in climate adaptation and resilience. Ghana lags behind. Kenya and Pakistan are finding ways to accelerate adaptation policy and planning. Mozambique prepared a National Adaptation Programme of Action in 2007, but implementation has been delayed.

It has been established that frameworks for monitoring and evaluating adaptation and development across sectors and interventions are not in use. Even though some of the countries are taking on large-scale adaptation investments, no cross-intervention evaluative frameworks currently exist. The framework being developed through the National Climate Change Action Plan process in Kenya, however, is based upon the TAMD framework.

The scoping work indicates that the TAMD approach is appropriate and relevant for all five countries, and that there are very good opportunities to develop evaluative frameworks through the TAMD approach. In each case the government agencies approached (ie the climate change mandated ministries and planning agencies) were favourable to being part of the TAMD initiative. They see the utility of the approach and expressed interest in engaging in steering the development of a TAMD framework for their national context. The large differences in national circumstances with regards to climate policy development and adaptation interventions will shape how each government considers it best to apply the TAMD approach.

On the basis of the scoping studies, the TAMD initiative appears ready to move into the next phase of appraisal and design.

[1] The Tracking Adaptation and Measuring Development (TAMD) approach offers a 'twin track' framework for use in many contexts and at many scales to assess and compare the effectiveness of interventions that directly or indirectly help populations adapt to climate change. The TAMD approach was elaborated by IIED, Garama 3C ltd and Adaptify. See http://www.iied.org/tracking-adaptation-measuring-development http://pubs.iied.org/search.php?k=TAMD%3A+A+framework+for+assessing+climate+adaptation+and+development+effects&z=+

Table of Contents

1. Introduction

This report presents a summary of the five scoping reports prepared towards the end of 2012. Scoping activities were carried out in Ghana, Mozambique, Nepal, Pakistan and Kenya to ascertain interest in the TAMD approach[2] and to see if the national circumstances were suitable for developing and testing a TAMD framework. The scoping activities looked at the development needs and climate vulnerability of each country, and whether climate adaptation was incorporated into the wider development policy framework. They identified the government agencies mandated to address climate change in general and adaptation in particular, and determined which might be potential policy partners. Non-governmental climate change adaptation actors were also identified and potential research partners sought. The investigations looked into large-scale adaptation interventions and considered how the effectiveness of climate adaptation is being assessed.

1.1 Background to the TAMD initiative

In late 2010, the Adaptation Team, of the DFID Climate and Environment Department, commissioned a group of adaptation experts to explore ideas about outcome indicators that could be used to track adaptation progress at the macro level. The challenge was to see if there was a small number of indicators that could be aggregated across a wide range of adaptation interventions, and that could inform high-level decision-making about the use of adaptation resources. That exercise led to the production of a working paper on the concept of Tracking Adaptation and Measuring Development (TAMD) in 2011[3]. Feedback on this was sought across the adaptation community.

The working paper proposes a set of ten key indicator 'domains' that could signpost overall progress. Five would be at the institutional/capacity level, and five at the level of tangible implementation outcomes (see section 1.3).

The process generated a number of important conclusions for taking forward such an initiative:

- Ownership by key stakeholders and beneficiaries is the most important factor in making an evaluation framework operational and relevant. This applies as much to end users at the local level, as it does to national agencies making key decisions. Rather than developing TAMD products that are 'owned' by an international body, the intention is that TAMD is viewed as an important first step in developing bespoke national frameworks that donors can also work with. This is the main reason for adopting an open-source approach to its development.
- Problems with adaptation M&E mean that there is much work needed in developing reliable and relevant methodologies for assessing impact[4]. The development of a TAMD approach will focus on specific challenges such as counterfactuals, moving baselines, and linking improvements in adaptive capacity with tangible outcomes.
- There is much to be done to establish relevant baselines and develop data-collection

[2] The Tracking Adaptation and Measuring Development (TAMD) approach was elaborated by IIED, Garama 3C ltd and Adaptify. See http://www.iied.org/tracking-adaptation-measuring-development , http://pubs.iied.org/search.php?k=TAMD%3A+A+framework+for+assessing+climate+adaptation+and+development+effects&z=+

[3] Brooks, N., Anderson, S., Ayers, J., Burton, I., and Tellam, I., 2011, Tracking Adaptation and Measuring Development, Climate Change Working Paper Series No 1, http://pubs.iied.org/10031IIED.html?c=climate)

[4] See Anderson, S., 2011, Assessing the effectiveness of adaptation, IIED opinion http://pubs.iied.org/pdfs/17104IIED.pdf

systems that can help track developmental outcomes of adaptation. Donor investment is worthwhile in this area, and in ways that build the capacity of national systems, rather than bypass them. Further scoping work is required before major data collection efforts get underway.

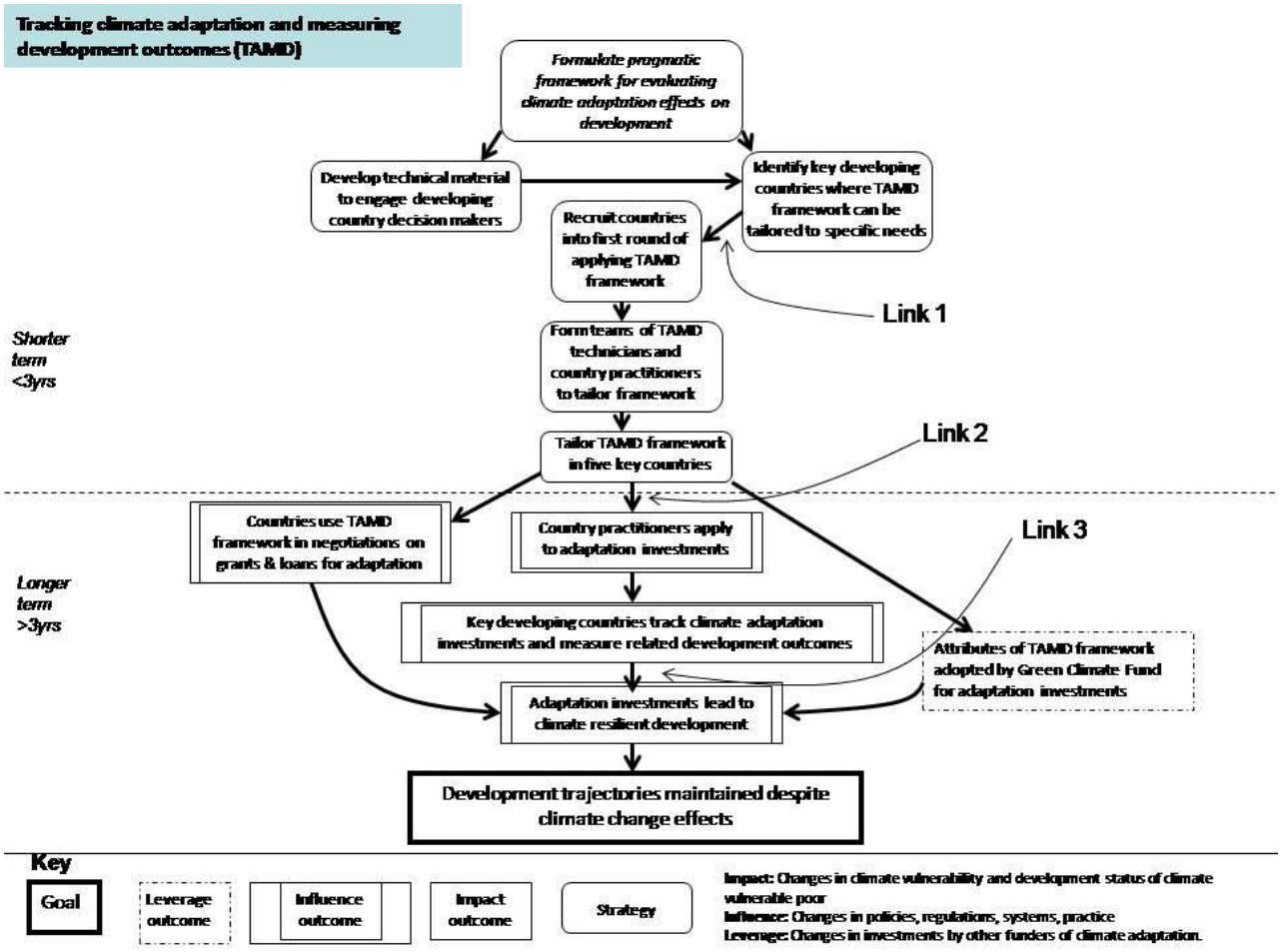
- As with any complex M&E system, different indicators will be needed for different purposes. No single set will capture everything adequately. The domains proposed in the working paper will be helpful in framing results. They will, however, be complementary to detailed project-level evaluation, and to attempts to aggregate specific results for assessing value for money and for communication purposes. The TAMD approach seeks to achieve context specific, and therefore relevant, indicators which are also comparable across cases. This will enable learning and improved adaptation investment management.

1.2 TAMD objectives, results chain and risks

The overall desired outcome of the TAMD approach is that governments and climate finance providers are better able to assess the developmental impacts of their climate adaptation programmes. This will be done through developing and testing an evaluative framework that will be useful for policymakers and implementers at the national level. The goal is that development trajectories are maintained despite climate change effects. The eventual impact will be strengthened national accountability for adaptation investments.

The results chain for the TAMD approach is set out in the diagram below.

Figure 1: Results Chain for the TAMD approach



Note on Link 1

The selection of the first cluster of countries and/or adaptation investments where a TAMD framework could be tailored to specific needs was discussed with the DFID Adaptation Team. Selection criteria included: cases at the initiation of the adaptation investment cycle; cases that represent DFID's own adaptation investment portfolio; and cases representative of investment by multi-lateral organisations (channeling DFID resources).

It was important that several cases countries were involved so that the framework could be tested under a range of circumstances. Link 1 can be monitored and assessed in terms of how well the criteria for choosing case interventions are followed and the diversity of cases in the initial cluster. The involvement and sense of ownership by national governments and development partners is also an important indicator.

Note on Link 2

Once the TAMD framework has been applied in the first cluster of cases and a bespoke evaluation framework developed for each, the next link in the chain is the uptake by national agencies and climate adaptation funding programmes. This can be assessed in terms of the M&E frameworks that national governments put in place for assessing the effectiveness of adaptation investments, and

the way that adaptation-funding bodies incorporate elements of the TAMD framework into their M&E systems.

Equally important is the way that adaptation assessment information is aggregated across cases and then used by governments and agencies to compare and contrast existing adaptation initiatives, and to plan future ones.

The use of the information generated through using each of the TAMD frameworks can be monitored by comparing the results of the adaptation assessments with the ways existing investments and programmes are adjusted to perform better and the ways new initiatives are designed.

Note on Link 3

The ways that developing countries track climate adaptation investments and measure related development outcomes is important. The main use of the M&E information should be to improve the effectiveness of adaptation investments in supporting climate resilient development. This means that link 3 is where the capacity to assess adaptation is converted into the utilisation of the resulting knowledge and information to shape adaptation and other development policies.

The endpoint is the way that adaptation investments deliver climate resilient development. It is anticipated that adaptation investments made with the knowledge generated by applying the TAMD approach will be more effective in terms of contributing to climate resilient development of the beneficiary populations. It is also anticipated that these investments are better monitored and evaluated, and that assessments can be compared and also aggregated to higher levels.

The development of a framework to be used across different countries could influence the ways that climate finance delivery for adaptation is discussed within the climate change negotiations process. This can be monitored in terms of statements to the UNFCCC and the design aspects of mechanisms proposed by the Conference of Parties.

Note on Risks

A number of risks were identified, and include the following:

- Assessing the effectiveness of adaptation investments is fraught with conceptual, theoretical and methodological complexities[5]. Thus developing a sense of ownership by key stakeholders could be problematic.
- Monitoring and evaluation is often seen as a critical process and can result in a defensive response. In contrast, it is anticipated that stakeholders take a learning approach to employing the TAMD framework and develop an appreciation for dialogue.
- There is the risk that some of the secondary data used may be inaccurate or incomplete. However, this risk is outweighed by the cost of generating primary data, and quality assurance methods will be used to check data veracity.

[5] See explanation in Books, N., Anderson, S., Ayers, J., Burton, I., and Tellam, I., 2011, Tracking adaptation and measuring development, http://pubs.iied.org/10031IIED.html?c=climate)

1.3 An outline of the TAMD approach

The following is an extract from the TAMD Concepts working paper (Brooks et al. 2011)[6].

Adaptation initiatives may be placed into three broad categories: addressing the existing 'adaptation deficit'; managing incremental changes in climate-related risks; and proactively addressing the more profound longer-term manifestations and impacts of climate change by transforming or replacing existing systems and practices. Most climate change response evaluation frameworks essentially assume that adaptation can and will 'neutralise' the impacts of climate change, enabling development to meet targets that were originally set without any reference to the potential impacts of climate change – in other words, targets set under assumptions of a stationary climate. Such frameworks underestimate the potential need for transformative change.

Current adaptation policy and practice are often shortsighted. They largely focus on improving the ability to cope with current climate variability, and on 'climate proofing' development investments to address incremental changes in existing climate-related risks, in the near term. The need for transformational change is demonstrated in the scientific literature but is only referred to rhetorically in climate change programmes that struggle to shift from business-as-usual strategies.

Climate change is changing the contexts in which development takes place by changing the nature and intensity of climate-related risks, and through the impacts of evolving climate-related risks on people's vulnerability. Current development interventions that fail to address climate change, and current climate change interventions that fail to appreciate where business-as-usual cannot be secured through incremental adaptation, are likely to result in unintended consequences including 'maladaptation'. Developing countries will need to track these consequences and consider how policies and service delivery act to support or undermine adaptive capacity at different levels.

Longer-sighted and more context-specific approaches that address changing risk contexts and that allow for flexible responses to uncertain changes in climate and unintended consequences of development interventions are needed for planning, implementing and assessing adaptation to climate change.

An 'open source', rather than a proprietary, approach to the development of a framework for adaptation evaluation is proposed here. The purpose is to co-produce and promote an approach that will enable a variety of actors, including developing country governments and other bodies within developing countries, to formulate, implement and evaluate climate change policies and actions.

We propose an approach to the evaluation of adaptation 'success' that combines assessment of how well climate risks to development are managed by institutions ('upstream' indicators), with assessment of how successful adaptation interventions are in reducing vulnerability and keeping development 'on track' in the face of changing climate risks ('downstream' indicators). The aim here is to provide a framework that defines indicator categories or 'domains' that can be tailored to specific contexts, rather than a 'toolkit' for monitoring and evaluation that prescribes particular indicators.

This approach combines capacity-related indicators with indicators of vulnerability and the assessment of development outcomes under climate change. The approach also addresses issues of moral hazard and information asymmetry. By looking at how climate risk is managed by authorities and linking this with the vulnerability of and development outcomes experienced by the climate

[6] Brooks, N., Anderson, S., Ayers, J., Burton, I., and Tellam, I., 2011, Tracking Adaptation and Measuring Development, Climate Change Working Paper Series No 1, http://pubs.iied.org/10031IIED.html?c=climate)

vulnerable poor, the framework shows whether and how the adaptation needs of marginalised groups are addressed, and what safeguards are in place to prevent maladaptation.

The following domains for indicators are proposed to evaluate the extent to which climate risk management is integrated into development processes, actions and institutions:

- The use of climate and M&E information in policy and programme design.
- How well national systems conduct climate risk management functions.
- Proportion of development initiatives that are climate-proofed.
- Mechanisms for targeting the climate vulnerable poor.
- Institutional frameworks of regulatory and legislative support of adaptation.
- The effectiveness of macro-economic management for climate resilience.

Suggestions for measures of the developmental impacts of adaptation include:

- Numbers of beneficiaries of climate change adaptation interventions (either absolute or in terms of proportion of national or other population).
- Coverage of climate change adaptation interventions.
- Numbers of people experiencing reductions in vulnerability, represented by movement from more vulnerable to less vulnerable category/score in key indicators that are defined in particular contexts.
- Value of assets and economic activities protected or made less vulnerable as a result of adaptation interventions.
- Benefit/cost ratios of adaptation options identified/implemented.

A number of issues have been identified for further attention. These are:

- The indicators proposed above are not intended to substitute indicators and processes at the country or project level, which are tailored to local contexts. Nor are they intended to be comprehensive. They are designed such that they can 'sweep' existing frameworks and approaches in order to present an aggregate picture of overall progress.
- The extent to which existing M&E processes allow the proposed framework to be implemented needs to be assessed.
- Work remains to be done onevaluating and proving impact, both in terms of specific livelihood outcomes, and in proving causality between upstream and downstream interventions.
- The costs associated with defining baselines and indicators in national contexts need to be front-loaded into adaptation investments; it is worth investing upfront to ensure that the evidence base exists to support meaningful evaluation.
- Climate adaptation funds' M&E and results-based frameworks might be improved be incorporating concepts and nationally-developed indicators for both climate risk management and climate-relevant/specific development and vulnerability indicators.
- Work is needed to establish baselines: this should be viewed as an opportunity to build local analytical capacity to assess climate risk. Such capacity building should be included in the design stage of baseline development. High level qualitative intermediate indicators to capture transformative outcomes and impacts are required. For example, indicators on policy levers that give incentives for low carbon, climate resilient action by governments, private sector and civil society, and indicators of increased climate foresight in planning by governments.

2. Case Countries: Work Plan, Activities and Outputs

The case countries chosen are Nepal, Pakistan, Kenya, Mozambique and Ghana. The work plan is set out in Table 1 below. This is followed by an outline of the activities to be carried out under each phase.

Table 1: TAMD development work

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2012	*Project months:*			1	2	3	4	5	6	7	8	9
				Inception	*Scoping (4 months)*				*Appraisal and Design (4 months)*			
2013	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
	Feasibility testing (12 months)											
2014	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**			
	Case country analysis (2 months)		*Meta-analysis (2 months)*		*Write-up and dissemination (5 months)*							

Activities required for scoping, appraisal and design (September to December, 2012):

- Establish agreement with government (MOU with Ministry) to carry out appraisal and design, and feasibility-testing work. Agree point of contact and channels for accountability.
- In collaboration with the government contact point, identify key climate institutions and form steering committee under the chairmanship of the Ministry.
- Contract researcher.
- Collate evidence on main climate risks and priorities for national climate change responses
- (CC Policy document, Implementation plan etc.).
- Collate and categorise climate change risks (extremes, trends, variability) – evaluate completeness of climate risk assessments.
- Collate information on 'adaptation-related' interventions and investments:
  - map coverage and correlate to available climate vulnerability and poverty incidence data,
  - assess M&E systems currently applied to climate adaptation interventions and investments (methodologies behind the M&E systems, gaps as regards TAMD elements).
- Carry out appraisal of national statistics systems and equivalent programmes to identify data sources for developmental parameters – DRR M&E, monitoring of climate variability.
- Assess climate change risks to sectors, localities and populations and the responses that currently take place.

- Identify interventions, institutions and populations where TAMD can be applied/ tested.
- A TAMD methodology workshop will be held with government and research partners. At this workshop a detailed work plan will be designed and budget will be allocated (Oct or Nov 2012).
- TAMD and research partners will agree the process and design for developing a bespoke TAMD framework with government contact point and steering committee.

Activities required for TAMD framework development and feasibility testing (January to December 2013):

- Assess the capability of public agencies to manage climate change risk, down through national, sub-national and local administrative levels into high vulnerability and poverty areas.
- Identify baselines for developmental parameters relevant to the interventions where TAMD may be applied.
- Identify key climate change risk management functions where improvement will be monitored.
- Elaborate sampling frame and reporting formats.
- Report findings on feasibility tests at a national workshop.

Activities required for submission of a TAMD framework to government for review and dissemination of results (February and March 2014):

- The tested TAMD framework will be submitted by IIED and research partners to the government for review and amendment.
- The revised framework will be disseminated for peer review in the country.
- The peer-reviewed framework will be published.
- Arrangements for the implementation of the tested and reviewed framework will be discussed with the government contact point and resources identified for implementation.

The **outputs from the initiative** are listed against a time schedule in Table 2 below.

Table 2: Outputs

	Apr to Oct '12	Oct '12 to Feb '14	Mar to Sep '14	Total
Evidence paper (scoping)	1	5		6
Policy Brief	1	10	2	13
Full policy report		6	1	7
Blogs	1	10	1	12
Webcast/other social media		10	1	11
Events/conferences		1	1	2
Conference proceedings		1	1	2
Conference Key Note Paper		1	1	2
Press & media coverage	1	10	1	12
Submissions to Parliaments and/or UNFCCC		6	1	7
CCA investment status report		5		5
Evaluation frameworks		5		5
National workshops		10		10
National workshop write-ups		10		10

3. Results of the Scoping Activities: Ghana

3.1 Development needs and climate vulnerability

Ghana is experiencing high GDP growth in the south, with particular growth in and around Accra, and it has achieved lower-middle income status on average. However, the northern part of the country is particularly poor, suffers from a degraded natural resource base and lacks infrastructure and assets. This poverty is likely to be exacerbated by increased climate variability and change.

Ghana's vulnerability to climate change relates to the risks resulting from exposure to droughts, floods, and coastal erosion. Agriculture is the largest employer in the Ghanaian economy, and increased variability in rainfall distribution is leading to increased risks of crop failure. It is a challenge to obtain accurate weather predictions.

Total rainfall is projected to decline and also to increase in variability, which will impact crop production and rural livelihoods. This is likely to lead to urban migration, which will place further strain on urban infrastructure. Changes in rainfall will affect hydroelectric generation capacity. The projected increase in frequency of droughts will lead to an increase in bushfires.

The availability of water for drinking and sanitation is already insufficient in Ghana's major cities. Salt-water intrusion may deprive coastal communities of water for drinking and sanitation, and reduce the water available for industrial use, unless more centralised water systems can be put in place. Declining income from agriculture and inadequate water supplies may affect nutrition and consequently human health.

The increased incidences of water, air and food borne diseases that accompany flooding, drought, heat waves, and dry winds are likely not only to affect crop and livestock health, but also impact human health. These may combine with the existing lack of sanitation in urban areas to cause multiple health risks. Poor sanitation and urban flooding is likely to increase the incidence of malaria and cholera, while poor water supply will increase the incidence of guinea worm, and heat waves will exacerbate the incidence of cerebro-spinal meningitis. Government social welfare services are unlikely to be able to cope with these changes, as budgets are already overstretched.

Recent floods in the northern and urban areas have caused widespread damage to infrastructure. For example the floods in the northern region in 2007 affected more than 300,000 people, destroyed more than 1000km of roads, ruined more than 250 billion tonnes of food, damaged 45 healthcare facilities and 210 schools, and required emergency funding of £12.5 million. Yet increased climate variability and change is not yet fully factored into national planning processes. Heavy downpours will drive up the cost of road repairs, which will hamper plans to expand the road network. Coastal erosion is projected to destroy a substantial portion of the eastern coast, which is likely to impact millions of dollars of investment in infrastructure.

Ghana's Climate Change Adaptation Strategy predicts that failure to respond to climate change could lead to a 3.3 % decline in GDP by 2050. Furthermore, agricultural GDP may decline between 1% and 6.5% by 2050, with an annual decline in cocoa production of up to almost 40%.

3.2 Climate adaptation within the wider development policy framework

Despite increased oil and gas wealth, indicators for income, education and skills, health, employment, productivity, social protection, and poverty reduction highlight growing inequalities. The government recognises the need to use oil and gas revenues to address issues in a range of sectors such as: education, productivity and employment, health promotion, population management, ageing, disability, poverty reduction and social protection[7]. It is making major investments under the new Savannah Accelerated Development Authority.

Climate change is addressed in the Ghana Shared Growth and Development Agenda 2010-13, and the government has made a commitment to integrate climate change into all sectors of the economy. The country is in the early stages of prioritising climate risks and adaptation, and mainstreaming climate change into planning. Climate change responses to date have been fragmented and focused on individual projects. There is not yet sufficient capacity to orchestrate a systematic wide-scale response to climate change. Follow-up on various policy documents is not consistent and policy has not yet been adequately linked to sectoral planning or to the allocation of resources.

The National Climate Change Adaptation Strategy (NCCAS)

The National Climate Change Adaptation Strategy has recently been drawn up (with support from UNEP and UNDP). It provides "mechanisms for building Ghana's capacity, in terms of the infrastructure and knowledge required, to deal with climate change impacts and to reduce vulnerability in key sectors, ecosystems, districts and regions of the country. It will serve as a guide to the government of Ghana in its commitment under the United Nations Framework Convention on Climate Change (UNFCCC), according to which national governments are expected to take climate change issues into consideration in development planning."

The strategy used a multi-criteria analysis and expert consultation to arrive at ten national priority adaptation programmes. These include early warning systems, alternative livelihood strategies (particularly for the poor and vulnerable), improved land use management, enhanced research and awareness creation, agricultural diversification, and demand and supply measures for adapting national energy systems to climate change impacts.

There are a number of issues, however. The proposed actions are not prioritised, nor do they target measures in a way that facilitates monitoring, reporting and verification. The actions are not linked to sectoral objectives, which is essential if sectors are to see their relevance and implement them. Some actions do not relate directly to adaptation but to wider development, and may be of limited value for adaptation.

Implementation of the Strategy will take place under the decentralized planning and implementation system. Ministries, departments and agencies at the national level are responsible for formulating policy on development programmes and projects, as well as for the requisite planning, monitoring and evaluation. The execution of such programmes and projects is undertaken at the sub-national levels, by the government agencies and the district assemblies. Thus, appropriate institutions have been identified to assume responsibility for the strategy at all levels.

[7] Ghana Shared Growth and Development Agenda, NDPC, 2010

National Climate Change Adaptation Strategy Monitoring and Evaluation

The monitoring and evaluation of the strategy will be supervised by the Ministry of Environment, Science and Technology, under the National Climate Change Committee. Broadly, monitoring will cover the following:

- Physical progress of strategy implementation within the time and cost schedules.
- Quantitative and qualitative progress of implementation of programmes and projects where targets are set.
- Maintenance of capital assets, ensuring that the expenditure earmarked in the national and district budgets is utilized for the intended purpose.
- Planning of expenditure, ensuring that sectoral outlays are not disturbed and outlays for specific projects are not diverted for other purposes without compelling reasons.

While monitoring is to ensure timely completion of stipulated tasks for which resources will be allocated to the strategy, evaluation will aim at assessing the impact of the strategy and determining the success or failure in its formulation and implementation. Evaluation will be undertaken periodically, in mid-term and later at the end of the strategy's time period, preferably by external consultants.

There will be a comprehensive M&E plan to support the implementation of the Climate Change Adaptation Strategy. Key policy initiatives under the plan will include the following:

- Development of an institutional framework for coordinating the M&E system, including analysis and the mode of reporting on progress in strategy implementation to different stakeholders, such as government, civil society and development partners.
- Establishment of monitoring indicators against strategy baselines and core targets.
- Studies to enhance the knowledge and data base for conducting an objective impact analysis of the strategy.
- Plans for a dissemination and communication strategy to be adopted, based on the sound understanding of key stakeholders, the information they require from the monitoring and evaluation system, how best to communicate with them and what range and style of outputs should be produced.
- Agreement as to wider stakeholder participation (government, parliament, NGOs, civil society and private sector) in monitoring the progress of the strategy.

3.3 The mandated agencies in Government and potential policy partners

Principal agencies with respect to the formulation, implementation and monitoring of climate change policies and actions were identified during the scoping study. It was also found that the Ministry of Environment, Science and Technology and the designated climate change focal point, the Environment Protection Agency, have just launched the work for the Third National Communications report to the UNFCCC. The initiation and duration of this work coincides with development of the TAMD approach. No evaluative framework of adaptation effectiveness equivalent to TAMD was encountered during the scoping interviews.

During stakeholder discussions the following agencies and individuals were identified as potential policy partners:

- Fredua Agyeman (Director of Environment Department) and Dr Stephen Dua Yentumi, Ministry of Environment Science and Technology,
- Dr Edith Tettey, Prof Badu Akosa and Prof Takyiwa Manu, National Development Planning Commission,
- Robert Bamfo, Head of Climate Change Unit, Forestry Commission,
- Dr. Bob Alfa, Water Resources Engineer, Water Resources Commission,
- Kyekyeku Yaw Oppong-Boadi and Daniel Tutu, Environmental Protection Agency.

3.4 Other actors and potential research partners

Actors outside the government who have expressed willingness to participate in TAMD activities in Ghana are the following:

- Baba Tahiru, CARE Ghana,
- Professor Chris Gordon, University of Ghana,
- Susanne Bouman, World Bank,
- Justice Odol, USAID.

3.5 Action at scale on climate adaptation

Large-scale actions in support of adaptation were identified during scoping. Ghana has institutional and research capacity for climate change adaptation. A large number of recent studies have been carried out that can be used as the basis for needs assessments[8]. A cross-sectoral National Climate Change Committee has been formed. However, this would benefit from greater depth and breadth in expertise. Early warning systems are a priority in the national climate change policy framework. The framework intends to mainstream climate change adaptation into the Savannah Accelerated Development Authority in the north.

3.6 How the effectiveness of climate adaptation is being assessed

A Monitoring and Evaluation Unit is to be set up under the National Climate Change Committee to undertake M&E of the National Climate Change Adaptation Strategy. M&E at sub-national levels will form part of the regional and district M&E systems established to monitor and evaluate development programmes and projects in the districts and communities. Broadly, the focus is on project-based monitoring, with attention to whether individual projects meet their objectives and whether funds are diverted to other purposes without good reason. It is planned that evaluation takes place periodically by external consultants.

The M&E plan includes the development of an institutional framework for coordinating the M&E system as a whole. It aims to establish monitoring indicators against the strategy's baselines and core targets. Studies and stakeholder participation events are planned to reinforce the M&E plan, and a

[8] http://www.ghananewsagency.org/details/Science/Ghana-has-more-opportunities-to-tackle-climate- change/?ci=8&ai=41366 Climate Vulnerability Monitor report DARA is producing together with the Climate Vulnerable Forum – Ghana country study and the broader report. www.daraint.org

dissemination and communication strategy is to be developed. The plan does not constitute a framework to measure the development effectiveness of adaptation actions. The TAMD approach can therefore play a role in strengthening the M&E plan.

3.7 Conclusions and next steps

High-level political support has been expressed for the TAMD initiative, in particular from the Director's office at the Ministry of Environment Science and Technology, and from the National Development Planning Commission. Commissioners were involved in drawing up the proposed architecture for the project. They proposed a Steering Group consisting of representatives from the Ministry of Environment Science and Technology, the National Development Planning Commission, the Environmental Protection Agency, the University of Ghana, and Civil Society Organisations (eg CARE Ghana). In meetings for civil society organisations facilitated by CARE Ghana to discuss TAMD, the organisations expressed their support for TAMD development.

The adaptation chapter of the recently initiated Third National Communication to the UNFCCC is being coordinated by Baba Tahiru of CARE Ghana. He has expressed interest in including in it the conclusions and recommendations from the TAMD initiative with respect to adaptation M&E.

In consultation with the Steering Group members outlined above, Participatory Development Associates Ltd has been selected as the TAMD project holder, and PAB Consult, directed by Elijah Yaw Danso, has been selected to manage TAMD project finances.

4. Results of the Scoping Activities: Mozambique

4.1 Development needs and climate vulnerability

Mozambique is currently experiencing high levels of GDP growth, but approximately half the population remains in poverty and there is widespread food insecurity. The 16-year civil war, which ended in 1992 after the death of over one million Mozambicans, stunted economic growth and development across the country, and destroyed much of the country's infrastructure. The country is now in a period of economic development and seen to be a successful example of post-conflict recovery in Sub-Saharan Africa. Economic growth rates are around 7.2% (2011), and the government is pursuing pro-growth economic policies such as structural reform, supporting foreign direct investment and encouraging private sector growth. Economic growth has been supported by significant foreign investment and donor support[9]. However, Mozambique remains poor, with 50% of the country living below the poverty line. This poverty is particularly prevalent in rural areas[10].

The main risks related to climate change are droughts, floods and storms. All IPCC scenarios predict that climate change will have significant impacts for Mozambique, through increased temperatures, more variable rainfall and rising sea levels. Mozambique will also be vulnerable to extreme events such as tropical cyclones. Drought is most prevalent in the south, in the Limpopo region, which is also the country's main agricultural production area. Flooding is a risk along the Zambezi valley, becoming a hazard to livelihoods and infrastructure. Low lying coastal areas are prone to saline intrusion[11]. This physical exposure is compounded by a lack of infrastructure, high population growth rate, high rates of poverty and a reliance on natural resources that may be climate sensitive.

The World Bank study on the Economics of Climate Change, carried out in 2010[12], counted 68 natural disasters in Mozambique, affecting around 28 million people and causing 100,000 deaths since 1960. The study also calculated that almost half of Mozambique's population is estimated to be negatively affected by recurring floods costing approximately US$80 million, and droughts costing US$5 million a year. The Human Development Index notes that more than a third of Mozambicans suffer from chronic food insecurity. This is likely to increase as a result of climate change since agriculture is particularly vulnerable to climate risks.

4.2 Climate adaptation within the wider development policy framework

Mozambique's overall development strategy is to maintain a liberal attitude to foreign direct investment and to keep markets open, in the expectation of a continuation of the current period of economic growth. The World Bank reports[13] that Mozambique needs to develop the agriculture sector, which is largely subsistence-based and suffers from a lack of transport infrastructure. The country also needs to improve education and health services and to set up social security systems. Mozambique has a Poverty Reduction Action Plan (PARP 2011-2014) that aims to reduce the incidence of poverty from 54.7% in 2009 to 42% in 2014, with an emphasis on governmental action

[9] World Bank, 2012, Mozambique country summary http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/MOZAMBIQUEEXTN/0,,menuPK:382142~pagePK:141132~piPK:141107~theSitePK:382131,00.html
[10] GoM, 2011, Mozambique: Strategic Program for Climate Resilience
[11] MICOA, 2003, Mozambique Initial Communication to the UNFCCC
[12] World Bank, 2010, Economics of Climate Change in Mozambique
[13] World Bank County Profile Mozambique: http://go.worldbank.org/70UK6S1X30

that promotes "pro-poor" growth. Climate change is referenced in the plan, with a policy focus on promoting environmental quality, and the development of policies and strategies for mitigating and adapting to climatic changes.

The National Sustainable Development Council, meets twice a year and brings together key line ministries and agencies at ministerial level. The council is chaired by the Prime Minister and could play a role in climate change planning[14]. The National Institute of Disaster Management (INGC) coordinates work on disaster risk management. The National Adaptation Programme of Action (NAPA) was prepared by the Ministry for Coordination of Environmental Affairs in 2007. This outlined four priorities: strengthening early warning systems; strengthening the capacity of farmers to deal with climate change; reducing the impacts of climate change along the coastal zone, and managing water resources.

The Ministry for Planning and Development (MPD) and the Ministry for the Coordination of Environmental Affairs (MICOA) are responsible for coordinating policies and actions related to climate change within Mozambique. The government has reached an agreement with the World Bank, the International Finance Corporation, and the African Development Bank to develop and implement a strategic plan to address climate change. This agreement has been made under the Pilot Program for Climate Resilience (PPCR), under the Climate Investment Funds[15]. The agreement is known as the Strategic Program for Climate Resilience and is led jointly by MICOA and MDP. Funding for Phase 1 of the PPCR was agreed in February 2011 and consists of US$1.5 million for studies, workshops and capacity building. Mozambique presented its Strategic Programme document to the PPCR sub-committee in June 2011 and received endorsement for $86 million in loan and grant funds. The Mozambique PPCR has three pillars that will be supported by both PPCR funding and a Development Policy Operation. The latter (with a likely value of $150 million in installments) will support progress on other aspects of the climate change agenda, including low carbon energy access for the poor and Reducing Emissions from Degradation and Deforestation (REDD+). There is currently very little integration of climate change into core development planning. Therefore the planned Development Policy Operation will aim to support progress in achieving the policy reforms necessary for mainstreaming climate change throughout government policy[16]. This will include developing a national climate change strategy, supporting the development of a national institutional framework, and developing sectoral strategies and action plans in selected sectors.

4.3 The mandated agencies in Government and potential policy partners

Several potential policy partners were identified during the scoping phase, as detailed below:

- Telma Manjate, National Director, Ministry of Coordination of Environmental Affairs,
- Xavier Chavana, Technician of the PPCR process, Ministry of Planning and Development,
- Carlos seventine, Director, FUNAB (The Mozambican Environment Fund),
- Nelsia Guambe, Head of Administration and Finance, FUNAB (The Mozambican Environment Fund),
- António Queface, Lecturer and Climate Change adviser, National Institute for Disaster Management /UEM,
- Malene Wiinbland, Climate Change adviser, Programme of Support, Environment Sector, MICOA.

[14] GoM, 2011, Mozambique: Strategic Program for Climate Resilience
[15] See: http://www.climateinvestmentfunds.org/cifnet/?q=country-program-info/mozambiques-ppcr- programming
[16] GoM, 2011, Mozambique: Strategic Program for Climate Resilience

4.4 Other actors and potential research partners

Several potential research partners were identified, and they are listed below:

- Dr. Luis Artur, Lecturer and Researcher, Eduardo Mondlane University, Faculty of Agronomy and Forestry Engineering,
- Dr. Almeida Sitoe, Lecturer and Researcher, responsible for leading the development of the national climate change strategy, Eduardo Mondlane University, Faculty of Agronomy and Forestry Engineering,
- Camile Bann, Environmental Economics and Policy consultant, WB and UNDP under the PPCR (M&E and PPCR results framework)
- Rita Zacarias, Climate Change Adviser, DFID,
- João Carlos Fernando, Climate Change Programme Specialist, UNDP,
- Melque Gomes on behalf of ACCRA steering committee, ACCRA national Coordinator, Save the Children,
- Dr Lorenz Petersen, Country Director, GIZ,
- Rene Celaya, National director, CARE International Mozambique.

4.5 Action at scale on climate adaptation

There are several key initiatives related to climate adaptation currently underway in Mozambique[17]. They are outlined below.

- Mozambique started working on Disaster Risk Management in response to a number of extreme natural disasters, including cyclones and droughts in 1984 and major floods in 2000. This focus led to a better understanding of the links between disaster risk management and climate change and the planning efforts needed to respond to climate change.
- The Natural Institute of Disaster Management Phase 2 study played an important role in bringing together different institutions.
- The African Adaptation Program (2010-2012) is working with a number of sectors and institutions, including the Ministry of Coordination of Environmental Affairs, the Ministry of Planning and Development and the Natural Institute of Disaster Management. The program complements the Strategic Program on Climate Resilience (SPCR); it has a strategic level focus and is working to increase institutional capacity and frameworks.
- The Environment Sector Support program (ESP2) 2011-2015 is working to integrate climate change into sector plans.
- The United National Development Program Development Assistance Framework 2012-2015 is assisting the Ministry of Coordination of Environmental Affairs in Green Human Development and provides support for climate change adaptation and mitigation.
- The Natural Institute of Disaster Management Phase 3 study describes a Knowledge management centre under the PPCR.
- In 2007 the Ministry of Coordination of Environmental Affairs prepared its National Adaptation Programme of Action (NAPA), that laid the foundations for a multi-stakeholder adaptation agenda.
- At the macro level, the government addresses climate risk in the Action Plan for the Reduction of Absolute Poverty 2011-2014 (PARPA 3). One of the plan's objectives is to support the

[17] Bann, Camille, The PPCR in Mozambique, unpublished draft, 2012

adoption of measures to prevent and adapt to climate change.

The government recognizes that improved coordination and strategic planning is still needed. This is particularly so for clarification of institutional roles and responsibilities between line ministries, and for setting out effective priorities for adaptation investment. To this end, the Ministry of Coordination of Environmental Affairs is coordinating the development of a National Strategy and Action Plan for Climate Change, with support from the Strategic Program for Climate Resilience.

4.6 How the effectiveness of climate adaptation is being assessed

Mozambique is still in the early stages of considering climate change M&E, but donor initiatives have increasingly put it on the agenda. The Strategic Program for Climate Resilience has a specific focus on developing national M&E, both for the Programme's pilots but also for climate change policies more generally. It is supporting a Climate Change Technical Assistance Project, which will specifically support the design and operation of the Strategic Programme's M&E framework over the next 3 years, and support the design of the national M&E that will ensure adequate monitoring and evaluation of the National Climate Change Strategy[18]. The government is committed to developing an integrated M&E framework for climate change, in order to link all relevant existing and proposed M&E frameworks and ensure a compatible, streamlined and efficient M&E system.

The government's national 5-yearly census will, in 2013, for the first time, include an indicator on climate vulnerability. This could be used to develop maps of climate vulnerability and be an important data source for a future TAMD framework.

There are a number of other important developments. A national M&E framework will be in place by the end of 2014 to look at national progress and impacts. There will be new strategic Performance Assessment Framework (PAF) indicators against which the government and all donors will report[19]. These agreements are included in the National Climate Change Strategy and in the Development Policy Operation. The government has proposed the following indicator for the PAF: "Cumulative number of sectors/institutions and provinces that integrate disaster risk management, climate change adaptation and mitigation aspects into planning processes, and will include specific targets set for sectors and provinces for each year." These indicators will allow progress in mainstreaming climate change into national and sectoral planning, to be tracked and reported on annually by the government.

In other areas, DANIDA is supporting the Ministry of Coordination of Environmental Affairs to develop an M&E framework for the environment sector, and the UNDP is supporting the ministry in facilitating stakeholder agreement on an M&E strategy for a Green Economy. The Mozambican Environment Fund is working with KPMG to help design a manual on the evaluation and monitoring of funding activities.

It is not yet clear whether and how the Climate Change Technical Assistance Project will seek to assess other adaptation interventions beyond the SPCR, although it does aim to broadly monitor the national climate change strategy. The TAMD project is currently the only initiative on the planning horizon that has a stated aim to link adaptation evaluation with development effectiveness. There is an

[18] Draft Report, Nov 2012, The Strategic Program for Climate Resilience in Mozambique – towards measurable transformational change

[19] A Performance Assessment Framework (PAF) is used by the GoM and the nineteen donors that provide General Budget Support to the GoM. The PAF comprises a set of 35 indicators, jointly agreed and reviewed on an annual basis.

opportunity, therefore, for TAMD to work closely with the Climate Change Technical Assistance Project to ensure the conceptual work is linked with wider efforts to mainstream national M&E, and to feed this work in to newly emerging institutional systems being developed under the SPCR.

4.7 Conclusions and next steps

There is strong support for the TAMD initiative in Mozambique. All stakeholders interviewed expressed their support and it was not difficult to identify suitable participants for a Steering Group for the TAMD project. They agreed that the Steering Group should consist of representatives from the following organizations: the Ministry of Planning and Development, the Ministry of Coordination of Environmental Affairs, the University, Civil Society Organisations, and the Natural Institute of Disaster Management, and the Mozambican Environment Fund (created to function as Implementing Entity to receive funds from the international Adaptation Fund).

CARE Ghana acted as intermediary to facilitate the mission and to set up meetings with key stakeholders. CARE Ghana has expressed interest in facilitating further development of the TAMD Mozambique project.

5. Results of the Scoping Activities: Pakistan

5.1 Development needs and climate vulnerability

From the 1990s, Pakistan's development has been framed by financial support, with policy frameworks for economic and fiscal stabilization packaged as 'Poverty Reduction Strategies' at the insistence of the IMF and the World Bank. Environmental concerns were emphasized in a number of strategic documents: the 7th Five Year Plan: "Sustainable development and the MDG's", the Medium Term Development Framework (2005–10), the Vision 2030 and the Poverty Reduction Strategy Papers.

Pakistan's efforts to achieve social, economic and environmental development have been severely constrained by a combination of unfavourable internal and external developments during the past five years (2006 – 2011). These include socio-political turmoil, militancy, military operations, natural disasters (especially the Great Flood in 2010), the impacts of the sharp increase in the prices of food and oil, and the global economic recession[20].

Climate change is an emerging challenge. It poses major threats to water, food and energy securities in Pakistan. This is in addition to the increased pressure on the country's ability to reduce and manage environmental disasters.

From 2008, the Climate Change Task Force gave new direction to policy discourse in Pakistan. The Task Force looked into the range of challenges posed by climate change and gave a set of recommendations for each sector of the economy. The Task Force report identified the following potential impacts of climate change on agriculture, food security and livestock:

- Water requirements will increase, however there will likely be less water available and the timely availability of water will be an issue.
- Monsoon and rain patterns will change, which will impact agriculture, livestock and food security, especially in arid areas.
- Water related disasters will increase in number and intensity.
- Increased incidents of pest and diseases can be expected.
- Productivity of agriculture and livestock is likely to decrease.
- Sea intrusion will impact agriculture, livelihoods and ecosystems of coastal areas.
- Fish habitats will be impacted and there may be migration or extinction of fish species, leading to a decline in production and productivity of fish.

5.2 Climate adaptation within the wider development policy framework

The Poverty Reduction Strategy Paper-1 (2003) elaborated the implications of the environment-poverty nexus in Pakistan. In 2007, a comprehensive policy blueprint called 'Pakistan in the 21st Century: Vision 2030' was developed. Policy guidelines, entitled the 'Framework for Economic Growth', were prepared by the federal Planning Commission and approved by the National Economic Council in 2011. These are intended to guide the four Provincial governments in elaborating their development plans. The Framework refers to "climate proofing development". It recommends the allocation of financial and other resources for the implementation of the National Environment Policy

[20] Assessment of Millennium Development Goals progress in Pakistan issued by the Planning Commission (PMDGR 2010).

and the related action plans on adaptation and mitigation currently being prepared.

The Framework for Economic Growth (2011) sets out four areas of development action for improvements in the quality of life – quality governance, vibrant markets, energetic youth and community, and creative cities. Despite this, economic growth has been sporadic and inflation remains a problem. Full employment requires growth at 7% per annum on a sustained basis. However, from 2007 to 2011 per capita incomes did not rise and growth was close to 5% per annum.

The Framework rejects "the old paradigm of project- and government- led growth." The new strategy emphasises the need to: reduce economic distortions; improve functioning of domestic markets; create space in cities through proper zoning; energise youth; engage communities; induce investment in human and social capital; and enhance connectivity and interactivity.

The Framework includes an actions matrix for what is referred to as the environment and climate change sector. The main themes, objectives, measures and mandated agencies are set out in Table 3 below.

Table 3: The Framework for Economic Growth

Pakistan Framework for Economic Growth – Environment and Climate Change Sector	
***Theme 1*:**	Ensuring economic growth is sustainable and climate resilient (short term). Protect economic growth from the risk, and associated economic cost, of climate induced natural disasters by mainstreaming risk reduction and management concerns within the government's planning processes.
Overall Objective	Allocate adequate financial and other resources to implement the NDMA's "National Disaster Risk Management Framework" and Medium Term Plan (2011-2015).
Mandated Agencies	Planning Commission, Planning and Development Departments, Urban Unit, National Disaster Management Authority, Provincial Disaster Management Authorities, District Disaster Management Authorities, and NIMD.
Theme 2	'Climate proof' economic growth from the impacts of climate change, in particular on the agricultural, water and energy sectors. (5 years)
Overall objective	Allocate adequate financial and other resources to implementing the adaptation measures in the government of Pakistan's Climate Policy and accompanying Action Plan (upcoming).
Mandated Agencies	Planning Commission, Ministry of Foreign Affairs and EAD.
Theme 3	Promote 'green growth' by attracting investment in low-carbon technologies. (longer term, >5 years)
Overall objective	Allocate adequate financial and other resources to implementing the mitigation measures in the government of Pakistan's Climate Policy and accompanying Action Plan (upcoming)
Mandated Agencies	Planning Commission, National Disaster Management Authority, Provincial Disaster Management Authorities, NIMD, AEDB, Engineering Universities

The 18th Constitutional Amendment has led to some of the roles of the previous ministry of environment being devolved to the provincial authorities. In conjunction with this, the government has made moves to address climate change challenges to the Economic Framework for Growth.

Pakistan is in the early stages of identifying climate risks, prioritizing adaptation actions and

mainstreaming climate into policy. Momentum has been built over the last year with the design and approval of the climate change policy, preparation of the climate change action plan and the creation of the Ministry of Climate Change.

Several significant project interventions at the sub-national scale would contribute to climate adaptation objectives (e.g. the Sustainable Land Management Project) and Pakistan has been awarded support from the Adaptation Fund for a project to address glacial lake outburst floods.

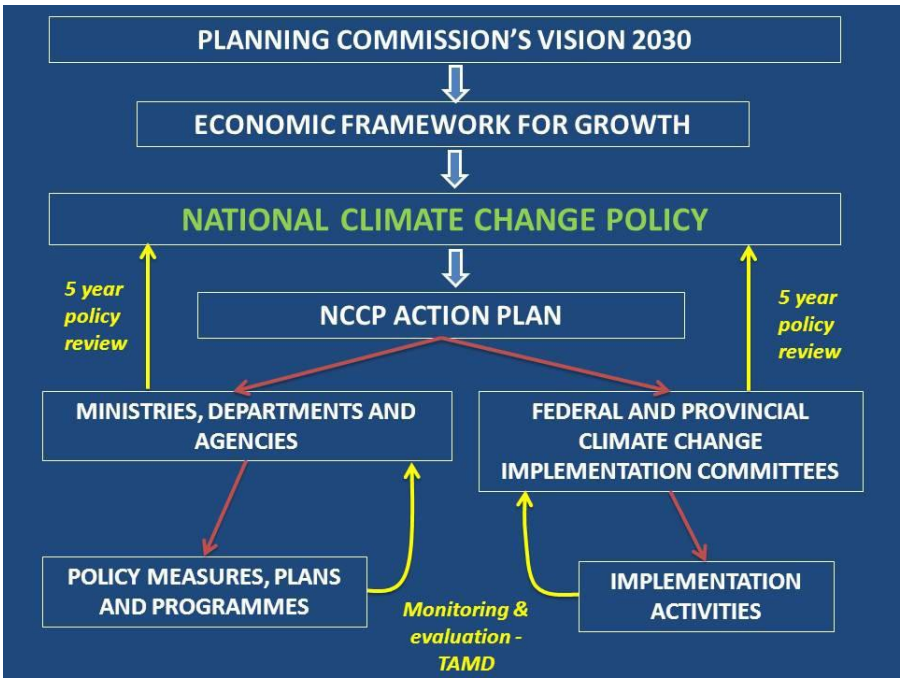
The National Climate Change Policy (NCCP)

The goal of the National Climate Change Policy is to ensure that climate change is mainstreamed in to economically and socially vulnerable sectors of the economy and to steer Pakistan towards resilient development. The Policy objectives include the following:

- Pursue economic growth by addressing climate change challenges,
- Integrate climate change policy with other national policies,
- Focus on pro-poor gender-sensitive adaptation,
- Ensure water, food and energy securities in the face of climate change,
- Minimize risks from extreme events,
- Facilitate effective use of national and international opportunities,
- Enhance awareness, skill and institutional capacity.

The relations between Vision 2030, the Framework for Economic Growth and the National Climate Change Policy are illustrated in figure 2 below. [Please note the arrows depicting where the TAMD initiative could contribute to climate adaptation monitoring and evaluation within the policy framework are purely indicative at this stage.]

Figure 2: Pakistan's national policy framework



5.3 The mandated agencies in Government and potential policy partners

The federal government will develop an overall action plan for implementation of the National Climate Change Policy. Ministries, departments and agencies will devise plans and programmes covering their mandated policy areas. Provincial governments, federally administered territories and local governments will devise their own strategies and plans. Climate change policy implementation committees will be established at federal and provincial levels. They will monitor and update the policy every five years.

A new Ministry of Climate Change was constituted in July 2012. Final revisions to the Climate Change Policy were presented to Cabinet in September 2012 for endorsement. The Policy has a strong adaptation emphasis, aiming towards water, food and human security. Pakistan wants to demonstrate that it is committed to investing domestic resources, and hopes thereby to attract external funding.

Potential policy partners include:

- Dr. Qamar uz Zaman, Advisor on Climate Change, Pakistan Metrological Department,
- Mr. Javed Malek, Secretary, Policy Commission,
- Dr. Aurangzeb, Director of Environment, Planning Commission,
- Mr. Jawed Ali Khan, Director General of Environment, Ministry of Environment,
- Mr. Suhail Ahmed, Secretary of Statistics Division, Ministry of Planning,
- Dr. Asif Shuja Khan, Director General, Environment Protection Agency.

5.4 Other actors and potential research partners

There are several potential organisations that could act as research partners for TAMD in Pakistan. These include:

- Global Change Impacts Studies Centre,
- Water & Power Development Authority,
- National Information Office,
- National Agricultural Research Centre /Pakistan Agricultural Research Council,
- Space and Upper, Atmosphere Research Commission,
- Pakistan Institute of Development Economics,
- Pakistan Atomic Energy Commission,
- COMSATS,
- Institute of Information Technology,
- National University of Computer and Emerging Sciences,
- Hydrocarbon Development Institute of Pakistan,
- Pakistan Forest Institute.

Individuals with whom a research partnership has been discussed include:

- Ambassador Shafqat Kakakhel, Adviser to SDPI,
- Dr. Arshad, Director, Global Change Impacts Study Centre,
- Mr. Ayoub Qutub, Executive Director, PIEDAR,
- Dr. Sajjad Akhtar, Ex-Director, Centre for Poverty Reduction and Social Policy Development, Planning Commission,
- Mr. Alauddin Arif, Chief Executive Officer, Alternative Energy Development Board,

- Dr. Rihana Siddiqui, Director, Centre for Environmental Economic and Climate Change, Pakistan
- Institute of Development Economics,
- Mr. Bob Leverington, Head of Humanitarian Unit, DFID,
- Mr Jamy, Director, Environment and Climate Division, UNDP,
- Dr. Ali Khan Sheikh and Dr. Hina Lotia, Directors, LEAD Pakistan.

5.5 Action at scale on climate adaptation

There is one climate adaptation intervention recognised by the government: the Glacial Lake Outburst Flood project managed by UNDP and funded by the UNFCCC Adaptation Fund. There are other large-scale initiatives, such as the Sustainable Land Management programme (Ministry of Agriculture), the Coastal Zone Protection (WWF), and other smaller civil society initiatives, that are closely related to climate adaptation whilst not being called adaptation as such.

5.6 How the effectiveness of climate adaptation being assessed

The National Climate Change Policy sets out plans for a five-year review of climate initiatives. So far, beyond project level M&E, no higher level assessment of effectiveness has been contemplated.

5.7 Conclusions and next steps

Discussions with major government and non-government stakeholders, including the Ministry of Climate Change, the Environment Division of the National Planning Commission, and the UNDP Environment and Climate Division, have concluded that the TAMD initiative could make positive contributions to the development of climate adaptation responses in Pakistan. The TAMD initiative is seen as complementary to the objectives of the Ministry of Climate Change. Mr. Ali Khan, the Director General of Environment, expressed interest in having a mechanism to track adaptation investments from domestic, international, public and private sector sources.

6. Results of the Scoping Activities: Nepal

6.1 Development needs and climate vulnerability

Nepal is a land-locked mountainous country and the topography presents many development challenges. It is one of the poorest countries in the world, currently ranked 157th on the HDI index of 187 countries[21]. Nepal faces several large infrastructure challenges. There is an issue of access to power and the reliability of power supplies. Fifteen out of 75 district headquarters are yet to be connected by road, and 60% of all roads are not classified as all-weather routes[22]. Only 24% of the population is enrolled in secondary education, and 47% of children under five are stunted due to malnutrition. Around 85% of the population depends on agriculture, which is the sector contributing the most to GDP[23].

Nepal has experienced considerable political instability since democracy was declared in 1990. This includes a 10-year violent conflict that ended in 2006, the abolition of the monarchy, and five governments in the past five years. A new constitution was to be agreed upon in May 2012; however this has not yet happened. There is uncertainty as to how this issue will be resolved and political instability remains.

Nepal is highly vulnerable to climate change, as well as other disasters such as earthquakes. The country has a very varied geography and so climatic changes are difficult to predict. This is compounded by a lack of historical weather data and weather monitoring stations[24]. According to climate models, Nepal is likely to experience an increase in temperature over the next decades, up to 1.4ºC by 2030 and 2.8ºC by 2060. Predictions on precipitation vary according to the region, but most areas are expected to experience increased precipitation including increased rain intensity. The annual monsoon is likely to become more unpredictable. These effects could result in glacial melt, glacial lake outburst floods, and increases in droughts and floods[25]. These changes are likely to be significant for a society largely reliant on agriculture and mountain ecosystems.

6.2 Climate adaptation within the wider development policy framework

Nepal is in the process of transition from a monarchy-based governance system to a federal democratic republic with a new constitution. The government operates a three-year and five-year planning system to meet development objectives. The over-riding development objective is to reduce poverty.

The Tenth Plan/Poverty Reduction Strategy Paper (2002-2007) and recent Three Year Plans (2007-2010 and 2010-2012) aim to achieve a sustained reduction of poverty in Nepal through four development priorities: broad-based sustained growth; improved infrastructure and social/economic services in rural areas; targeting the poor and marginalised communities; and good governance for service delivery, efficiency, transparency and accountability[26]. The agricultural sector is given priority due to its huge importance for rural livelihoods. The current Three Year Plan (2010-12) aims to reduce

[21] World Bank, 2012, Nepal overview, http://www.worldbank.org/en/country/nepal/overview
[22] See 1.
[23] Adaptation Partnership, 2011, Nepal: Review of current and planned adaptation in South Asia
[24] See 3.
[25] GoN, 2010, National Adaptation Programme of Action
[26] See 5.

poverty through sustainable economic growth and improvements in living standards. The Three Year Approach Paper (2010-2012) deals explicitly with climate change and prioritises institutional capacity- building and addressing mitigation and adaptation.

The National Adaptation Programme of Action (NAPA) process was launched in 2008 and completed in 2010 through a consultative national process. It identified six key thematic areas: agriculture and food security; water resources; climate induced disasters; forests and biodiversity; public health; and urban settlements and infrastructure. The NAPA priorities are linked explicitly to the development objectives of the interim development plans. Nine integrated priority projects were identified. These include (i) community based adaptation through integrated management of agriculture, water, forestry and biodiversity, and (ii) community based disaster risk management. The nine projects require $350 million for implementation.

The NAPA was co-ordinated by the Ministry for Environment, Science and Technology, and in 2010 a Climate Change Management Division was formed within the ministry. Nepal also has a high-level Climate Change Committee and a Multi-Stakeholder Climate Change Initiative Co-ordination Committee. In 2011 the Climate Change Policy was approved, which contains commitments to implement the NAPA, and begin community adaptation planning. It also lays out a low carbon development and climate resilient strategy, and includes the intent to establish a Climate Change Centre as a semi-autonomous technical body. Both the Climate Change Policy and the NAPA contain the policy intention to ensure 80% of funds reach the local level. The government is in the process of instigating a climate change budget code to track finance allocated to addressing climate change; this will be brought into operation in 2012 or 2013.

A number of adaptation initiatives are being developed in Nepal. The Nepal Climate Change Support Programme: Building Climate Resilience in Nepal (NCCSP) was launched in 2012 and focuses on implementing NAPA priorities. It will use the National Framework to develop Local Adaptation Plans of Action (LAPA) in the mid and far-west of the country[27]. Nepal is one of the Climate Investment Funds' Pilot Programmes on Climate Resilience (PPCR) [28]. Work began on this in 2010 and the Strategic Programme for Climate Resilience was approved in 2011. It has five components, with the overarching objective of instigating transformative change in Nepal through large-scale investment and mainstreaming adaptation into core budgets and planning. There are also two Global Environment Facility projects in development, along with other donor projects such as the *Hariyo Ban* forest programme and an ecosystem-based adaptation pilot (see 6.5 for details of all of these).

6.3 The mandated agencies in Government and potential policy partners

The Ministry for Environment, Science and Technology is the mandated ministry for climate change, and the Climate Change Management Division is responsible within the ministry. The ministry is a logical policy partner as they play a coordinating role across all government adaptation programmes. The ministry coordinated the NAPA process and is currently engaged in the adaptation initiatives mentioned above. There is not, as yet, a mechanism within the ministry for cross-intervention monitoring and evaluation of adaptation, and the Secretary expressed interest in the TAMD approach.

The Ministry of Finance and the National Planning Commission also play significant roles and could be

[27] DFID, EU and GoN, 2012, Joint Press Release: European Union, DFID extend EUR 16.5 million (NPR approx 1.8 billion) grant assistance to Nepal Government for 'Nepal Climate Change Support Programme (10 Jan 2012)
[28] See http://www.climateinvestmentfunds.org/cifnet/?q=country/nepal

important actors to engage in mainstreaming the TAMD approach. The main national M&E section is based in the Ministry of Finance, and would also be a key actor. A range of other ministries and departments are also involved in climate change adaptation projects such as the Ministry of Forests, Ministry of Agriculture and Department for Hydrology and Meteorology.

There are a number of government co-ordination mechanisms that could provide entry points for working with the range of government actors that would need to engage with and endorse a TAMD approach to adaptation M&E. One such mechanism would be the climate change co-ordination committee that is being formed under the PPCR component 3 (technical assistance). This committee is intended to consist of representatives from all the major adaptation projects and work towards harmonising results-based frameworks. Another approach would be to work through an existing programme, such as the Nepal Climate Change Support Programme committee, with a mind to scaling up over time to include other interventions. In Nepal there is the opportunity to work with policy advisors (ex-civil servants) who can assist the project in identifying entry points and sources of support in policy engagement.

6.4 Other actors and potential research partners

There is a range of research organisations in Nepal. Discussions were held with several, and workshops were attended to meet relevant stakeholders. These were an SREP M&E workshop, an ecosystem-based adaptation inception workshop and a workshop on introducing climate change indicators into the World Food Programme's food security indicators.

ISET Nepal was selected as research partner, due to previous work in this area and a strong reputation for technical work. The main TAMD contact is the Executive Director, Ajaya Dixit.

In the appraisal and design phase, work will take place with policy engagement partners to embed the process in government channels from its inception. IDS Nepal will lead on convening policy workshops and policy engagement, and an independent policy advisor (Batu Uprety) will advise on procedures and institutionalisation within the Ministry for Environment, Science and Technology.

6.5 Action at scale on climate adaptation

There are a number of large-scale adaptation initiatives in Nepal.

The **Nepal Climate Change Support Programme** focuses on implementing NAPA priorities through local and community-based adaptation planning, and is funded by DFID and the European Union. Over 70 local adaptation plans have been produced and funding has been agreed (around £10 million) for implementation. This is being co-ordinated through the Ministry for Environment, Science and Technology and implementation is due to start in early 2013.

The **Pilot Programme on Climate Resilience** is coordinated by the Ministry for Environment, Science and Technology, and others are involved in the implementation. This programme brings $110 million in loans and grants to adaptation in Nepal to be used over 5-7 years. There are five components that address the core issues identified during a consultative process. Component one is Building Climate Resilience of Watersheds in Mountain Eco-Regions, to be implemented by the Department of SCWP and the Asian Development Bank. Component two is Building Resilience to Climate-Related Hazards, to be implemented by the Department of Hydrology and Meteorology and the World Bank. Component

three is Mainstreaming Climate Change Risk Management in Development, to be implemented by the Ministry of Environment, Science and Technology and the Asian Development Bank. Component four is Building Climate Resilient Communities through Private Sector Participation to be implemented by the IFC. Component five is Enhancing Climate Resilience of Endangered Species, to be implemented by the Ministry of Forests and Soil Conservation and the World Bank.

The **Hariyo Ban programme** is being implemented by WWF in partnership with Cooperative Actions for Relief Everywhere (CARE), the National Trust for Nature Conservation (NTNC) and the Federation of Community Forest Users Nepal (FECOFUN). The scale of the investment is around $30 million (USAID). The programme aims to reduce adverse impacts of climate change and threats to biodiversity in Nepal. The three integrated objectives of the programme are: to reduce threats to biodiversity in target landscapes; to build the structures, capacity, and operations necessary for effective sustainable landscape management, especially reducing emissions from deforestation and forest degradation; and to increase the ability of target human and ecological communities to adapt to the adverse impacts of climate change. The programme will work in 33 districts covering 19 districts of the Chitwan-Annapurna Landscape and 14 districts of Terai Arc landscape.

The two **Global Environment Facility projects** are in development and will focus on Glacial Lake Outburst Flooding.

The **Ecosystem Based Adaptation project** aims to develop pilots in Nepal, Peru and Uganda in order to demonstrate the business case for ecosystem-based adaptation. The $10 million project (UNDP, UNEP, IUCN) was started in October 2012.

6.6 How the effectiveness of climate adaptation is being assessed

The Ministry for Environment, Science and Technology has a Planning, Monitoring and Evaluation section based in the Administration, Planning and Monitoring and Evaluation Division. However, many stakeholders commented on the lack of capacity within this section, and the Secretary of the ministry was keen to include capacity building of officials into the TAMD process. It was suggested that the Planning, Monitoring and Evaluation section "has a very poor functional link with the climate change related programmes"[29].

There is currently no cross-intervention monitoring and evaluation for adaptation. The Ministry for Environment, Science and Technology and some of the bi-lateral donors and development banks have expressed concern at the lack of co-ordination between these programmes and their M&E systems. Each programme has its own results-based framework, and the government has no mechanism to assess the effectiveness of a programme beyond that.

The national M&E framework for Pilot Programme on Climate Resilience is yet to be developed. Each component will have its own results-based framework, which will be developed as the programmes are finalised. Component 3 includes capacity building on M&E for adaptation, and alignment and co-ordination of initiatives by the Ministry for Environment, Science and Technology. As part of this, the ministry intends to create a Climate Change Program Results Framework and to establish a Management Information System[30].

Thus, whilst the effectiveness of adaptation interventions is not currently being assessed, the PPCR

[29] Nepal, G., 2012, A Report on the SREP investment Plan and National M & E System, GoN and ADB, p14 (draft)
[30] Nepal, G., 2012, A Report on the SREP investment Plan and National M & E System, GoN and ADB (draft)

component 3 has the intention to address co-ordination and harmonisation of results frameworks over the next five years. The conceptual work and feasibility testing of TAMD could provide a timely contribution to support the Ministry for Environment, Science and Technology in this process.

6.7 Conclusions and next steps

Wide ranging support was identified during the scoping study. Discussions took place with a variety of stakeholders including government officials in the Ministry for Environment, Science and Technology, ex-officials, research and policy organisations, DFID and multilateral development bank representatives, and they all saw the need for some kind of integrative evaluative framework. The timing is particularly favourable in Nepal because i) many large-scale adaptation interventions are in the early stages, ii) there are considerable financial flows through the Ministry for Environment, Science and Technology and the implementing agencies, and iii) there is the PPCR C3 initiative to increase capacity and co-ordination of M&E in the Ministry for Environment, Science and Technology.

The policy and research partners are now in place in Nepal, and once contracts are signed work will begin. IIED and ISET Nepal have agreed to hold the first methodology workshop in mid- December to present initial approaches to developing the prototype and receive feedback at an early stage. A second methodology workshop may be organised in early 2013 to present a final prototype.

The key messages from the scoping study were to ensure that the capacity of existing officials is built throughout the TAMD development process, and to build ownership from the very beginning. The TAMD work plan in Nepal should incorporate these and ensure that the needs of the Ministry for Environment, Science and Technology drive the process.

The next steps are to finalise arrangements with the policy and research partners and to gain official approval for the project from government. Once IIED makes a formal request for the project and agreement has been received from the Ministry of Finance and the National Planning Commission, then the Ministry for Environment, Science and Technology and IIED will need to finalise a steering mechanism to institutionalise the project. This needs to balance the need for a committee that a) can meet regularly and input into the process, and b) is significantly senior to support institutionalisation at a later date. While the official processes are being followed, research and appraisal work will start through ISET Nepal.

7. Results of the Scoping Activities: Kenya

7.1 Development needs and climate vulnerability

The World Bank affirms that "poverty and vulnerability to climate change remain the most critical development challenges facing Kenya"[31]. Droughts and floods have been estimated to cost Kenya 2.4% of GDP per year. The key drivers of the economy are climate-sensitive. Future projections of temperature and rainfall suggest that major challenges will be presented for the economy, human life and the environment. Limited financial resources are available to adapt to and mitigate the impacts of these challenges. Kenya is formulating innovative investments in technology, capacity building, and research and development to reduce national and county vulnerability.

The Kenya Meteorological Department has provided data of temperature and rainfall changes in Kenya over the last fifty years. From the early 1960s, Kenya has generally experienced increasing temperatures. Over inland areas, the trends in both minimum and maximum daily temperatures depict a general warming through time, whilst the coastal zone shows a cooling trend. A reduction in cold extremes has also been observed over the arid and semi-arid lands regions. Further general warming over land locations has been predicted. These effects require further assessment to make adjustments for urbanisation effects[32]. Rising temperatures are expected to strengthen coastal winds and storms.

In many areas, rainfall has become irregular and unpredictable, and extreme and harsh weather is becoming common. Some regions experience droughts during the long rainy season, while others experience severe floods during the short rains[33].

7.2 Climate adaptation within the wider development policy framework

Kenya is implementing its Vision 2030, the long-term development blueprint which aims to transform Kenya into a "newly industrializing, middle-income country providing a high quality life to all its citizens in a clean and secure environment." National development is being implemented through Vision 2030 flagship projects. However, the government now recognizes the cumulative impacts of climate change and how these effects will become more significant over the next decades. Climate change effects are seen to have the potential to reverse much of the progress made towards the country's attainment of the Millennium Development Goals and Vision 2030[34].

The Bill of Rights stating that "every person has the right to a clean and healthy environment" entered into law in 2010. Every Kenyan's responsibility to protect and care for the environment was elevated to the highest constitutional level.

The Kenyan government has developed a **National Climate Change Action Plan**. This process was led by the Ministry of Environment and supported by a multi-sectoral Taskforce which oversaw the work of nine sub-components. These were as follows: long-term national low carbon development strategy; enabling policy and regulatory framework; national adaptation plan; mitigation and nationally appropriate mitigation action, national technology action plan, national performance and benefit

[31] World Bank. 2012. *Kenya Overview*. Available online at http://www.worldbank.org/en/country/kenya/overview
[32] Draft Kenya Climate Change Action Plan
[33] National Climate Change Response Strategy (NCCRS) 2010
[34] Draft Kenya Climate Change Action Plan

measurement; knowledge management and capacity development; climate finance; and coordination and integration. The Climate Change Action Plan is intended to help policy makers and others to implement the Constitution of Kenya 2010 and the National Climate Change Response Strategy 2010.

7.3 The mandated agencies in Government and potential policy partners

Kenya is entering a phase of constitutional change and a new electoral cycle. By the end of March 2013 a new government will be sworn in, and the country will have new decentralised governance. A climate change bill is currently being presented to parliament. New institutional and public sector arrangements for addressing climate change will be put in place. Kenya's current national climate change institutional architecture includes the following organisations.

- Ministry of Environment and Mineral Resources,
- National Environment Management Authority,
- National Environment Council,
- National Economic and Social Council,
- Directorate of Environment,
- Climate Change Secretariat,
- Kenya Meteorological Department,
- Devolved Government,
- Ministry of Planning and National Development,
- Ministry of Finance,
- National Climate Change Activities Coordination Committee,
- Inter-ministerial Climate Change Coordination Committee,
- National Drought Management Authority,
- National Council for Science and Technology.

The policies and government agencies that are likely to be important for developing national adaptation strategies are set out below.

The Draft **National Environmental Policy** (NEP) 2008 is the preserve of the Ministry of Environment and Mineral resources (MEMR). It addresses both mitigation and adaptation. It outlines measures to raise awareness of opportunities for adaptation through the promotion of appropriate technology transfer and capacity building.

The **National Policy for the Sustainable Development of Northern Kenya and other Arid Lands** has just been passed by the government. It addresses three key issues: how to close the developmental gap between Northern Kenya and the rest of the country; how to protect and promote the mobility and institutional arrangements that are essential to productive pastoralism; and how to ensure food and nutritional security across the arid and semi-arid lands, where unpredictability is certain to increase as the impact of climate change deepens.

The **National Disaster Management Policy**, 2009, sets out inclusive and focused approaches to facilitate strategic planning for systematic disaster management, as well as for contingency planning at lower levels against all emergencies, pro-actively (for preparedness, prevention and mitigation) and responsively (for response, relief, repatriation, rehabilitation, reconstruction, and recovery, as part of the full disaster cycle). It proposes a full continuum from preparedness, relief and rehabilitation, to

mitigation and prevention.

The **Ministry of State for Planning, National Development and Vision 2030** is using the Threshold 21 dynamic simulation tool to integrate the analysis of the risks and impacts of climate change across the major sectors in the economy, society and environment. It is doing this in order to inform coherent national development policies that encourage sustainable development, poverty eradication, and increased wellbeing of vulnerable groups, especially women and children, within the context of Vision 2030. This customised model will complement available budgetary models and other short- and medium- term planning tools. It will provide a comprehensive long-term perspective on development that will include issues of climate change, the Millennium Development Goals and Kenya's Vision 2030.

Kenya is collaborating with leaders from the Horn of Africa to end recurring humanitarian crises. The Nairobi Declaration on the Horn of Africa Crisis[35] was published in September 2011. The Nairobi Action Plan aims to eradicate drought emergencies in the Horn of Africa.

Key public sector agencies that will be policy partners in the TAMD work in Kenya include the Climate Change Secretariat and Kenya Meteorological Department, under the Ministry of Environment and Mineral Resources, and the Arid and Semi-arid Lands Secretariat.

7.4 Other actors and potential research partners

There are various public sector and civil society groups that could be considered as research partners in Kenya. These include non-governmental members of the adaptation thematic working group of the National Climate Change Action Plan, namely Kenyatta University (Environmental Faculty), Nairobi University (Meteorological Department), the Catholic Organisation for Relief and Development (CORDAID), the World Conservation Union (IUCN), Norwegian Church Aid (NCA), CARE Kenya, and the International Livestock Research Institute.

7.5 Action at scale on climate adaptation

Climate change response activities planned under the Kenya National Climate Change Response Strategy (NCCRS) currently being implemented include the following:

- ***Agriculture, Horticulture and Food Security*:** Support for community-based adaptation e.g. provision of climate information to farmers, enhanced financial and technical support to the Orphan Crops Programme, promoting irrigated agriculture, promoting conservation agriculture, value addition to agricultural products, developing weather indexed crop insurance schemes.
- ***Livestock and Pastoralism*:** Breeding climate-adapted livestock, weather indexed livestock insurance, establishment of fodder banks, inventory of indigenous knowledge, provision of water for livestock and humans, drought early-warning systems, and vaccination campaigns.
- ***Water Resources*:** Enforcement and/or enactment of laws for efficient water resource management, increasing capture and retention of rainwater, water quality monitoring, de-silting rivers and dams, protecting and conserving water catchment areas, investing in decentralised

[35] The summit on the Horn of Africa crisis: Ending Drought Emergencies: A Commitment to Sustainable Solutions; 8th-9th September 2011; Nairobi, Kenya.

municipal water recycling facilities, campaigns on water harvesting, hydrometric network to monitor river flows, and flood warning.

- ***Forestry*:** Intensified afforestation, promoting agroforestry-based alternative livelihood systems, promoting alternative energy sources, community forest management, reduced mono-species plantation stands by forest conservation measures, maintaining lower tree densities and collection of dry biomass.
- ***Energy*:** Controlling river water abstraction to enable hydro generation, promoting the use of alternative renewable energy and the promotion of improved cooking stoves.

Climate Change Response Strategy interventions that are pending include larger-scale actions, such as constructing inter-basin and intra-basin water transfers, investing in decentralised municipal water recycling facilities, increasing fire-control services, improving timber yields by planting mixtures of species, and artificially re-charging groundwater for threatened aquifers. In addition, the implementation of financial mechanisms is still pending. These are subsidies to promote water efficient technologies, a strategic fund for chemicals to disinfect water sources during droughts and floods, and zero-rating of taxes on renewable energy technologies.

Various ministries, such as Agriculture, Livestock, Water, Environment, and Northern Kenya Development and other Arid Lands, are implementing various activities related to climate change adaptation. In particular the Ministry of Northern Kenya Development and other Arid Lands is piloting adaptation planning at county level in Isiolo. Civil society organisations such as CARE and the Sustainable Community Environment Programme are also piloting adaptation planning in Garissa and Nakuru counties respectively.

7.6 How the effectiveness of climate adaptation is being addressed

So far there is no cross-intervention evaluative framework for adaptation interventions in Kenya. However, subcomponent 6 of the Climate Change Action Plan, 'National Performance and Benefit Measurement', is developing a national climate change measuring, reporting and verification system, along with performance indicators. In the adaptation element of this work, the TAMD framework is being used to guide the design of the evaluative framework.

7.7 Conclusions and next steps

The use of the TAMD framework to guide the design of the adaptation M&E component of the Climate Change Action Plan is an early example of uptake and use of the TAMD approach. This provides the basis for collaboratively testing the feasibility of the prototype with the Kenya government agencies involved, namely the Ministry of Planning and the Climate Change Secretariat within the Ministry of Environment and Mineral Resources.

Once the Climate Change Action Plan has been validated and published, it will be ratified by the Cabinet. At that point the TAMD approach will be entered into discussions with the policy and research partners identified here, in order to plan work for the feasibility-testing phase.

8. Meta-Analysis

The five case countries are at different stages of integrating climate change into their national development frameworks. They vary in the amount of investments they are receiving for adaptation, and in the institutional arrangements they have in place to monitor and evaluate these. Table 5 below outlines the variations in policy development and implementation with regard to development needs and climate adaptation responses.

Table 5: Comparison of integrating climate adaptation within development planning in the five case countries

Steps	**Long-term National Development Strategy and climate change**	**Climate Change Policy including legislative, regulatory and institutional elements**	**National climate adaptation programme**	**Multi-/ bi-lateral supported adaptation investments**	**Large-scale climate adaptation interventions in implementation and cross intervention evaluative framework**
Pakistan	*Economic framework for growth. Has climate change section added. CC budget code pending.*	*Climate change policy before Cabinet for endorsement. Implementation plan drafted.*	*Adaptation major part of climate change policy implementation plan.*	*One recognised – GLOF project managed by UNDP and funded through UNFCCC Adaptation Fund.*	*GLOF project initiated. No cross intervention evaluative framework.*
Nepal	*Current national development plan recognises climate change effects. Budget code in preparation.*	*Climate change policy endorsed by Cabinet. Institutional elements present.*	*National Adaptation Programme of Action ratified by cabinet and submitted to the UNFCCC.*	*PPCR with five components (ADB, IFC and WB), Nepal climate change Support Programme (DFID/ EU), Hariyo Ban – EbA project (USAID).*	*All investments list above at point of implementation. No cross intervention evaluative framework. PPCR work harmonising M&E frameworks.*
Ghana	*Ghana Shared Growth and Development Agenda 2010-13 recognises climate change effects.*	*None as yet – parliamentary climate change group formed recently.*	*National Climate Change Adaptation Strategy (support from UNEP and UNDP).*	*None as yet.*	*None as yet.*

Mozambique	*Action Plan for the Reduction of Absolute Poverty 2011-2014 (PARPA 3).*	*None as yet, but planning for climate change national strategy.*	*NAPA, Green Human Development Plan.*	*Africa Adaptation Programme, PPCR (inc DPO).*	*Under preparation. No cross intervention evaluative framework. PPCR work on national M&E systems.*
Kenya	*Vision 2030. Recognises CC effects on economic development. Cascades to CC Response Strategy and soon CC Action Plan.*	*Climate change policy before parliament. Institutional emphasis.*	*Not as yet – under preparation.*	*Africa Risks Programme. Africa Adaptation Programme. Relevant programmes under preparation, EU.*	*None such as yet. Cross intervention evaluative framework being prepared.*

8.1 Mainstreaming climate change into policy planning

The progress of the five countries towards the mainstreaming of climate adaptation into policy planning and implementation is varied. Many national development strategies now mention climate change as having a possible impact on development. Ghana and Mozambique are in the very early stages of addressing climate change through wider development frameworks. In Ghana for example climate change is included in the Ghana Shared Growth and Development Agenda 2010-13 and the government has made a commitment to integrate climate change into all sectors of the economy. However, Ghana is still at an early stage regarding prioitisation of climate risks and adaptation, and responses so far have been fragmented and focused on individual projects. Furthermore, there is not yet the capacity to orchestrate a systematic wide-scale response to climate change. Similarly, the government of Mozambique is just starting to address these issues. Although the national poverty reduction strategy does make reference to climate change, there is still considerable need for institutional strengthening to address its impacts. The government is producing a national climate change strategy, however, supported by the PPCR.

Pakistan, Nepal and Kenya are all moving forward with plans and priorities in their national contexts. Pakistan is at an early stage of identifying climate risks, prioritising adaptation actions and mainstreaming climate change into policy. However, momentum has been built over the last year with the design and approval of the climate change policy, preparation of the climate change action plan, and the creation of the Ministry of Climate Change. In Nepal, the focus of development policies is on poverty reduction, and the current Three Year Plan (2010-12) aims to reduce poverty through sustainable economic growth and improvements in living standards. However, the Three Year Approach Paper (2010-2012) is explicit about climate change and prioritises institutional capacity building and addressing mitigation and adaptation. A Climate Change Policy was passed in 2011, and climate change is due to become a budget code in the next financial year. Kenya has a long-term development blueprint, *Vision 2030,* which aims to transform Kenya into a newly industrializing, middle-income country. National development is being implemented through Vision 2030 flagship projects. The government recognizes the cumulative impacts of climate change and how these

effects will become more significant over the coming decades, and the National Climate Change Strategy is under development. The Climate Change Action Plan is intended to help policy makers and others implement the Constitution of Kenya 2010 and the National Climate Change Response Strategy 2010.

8.2 Adaptation investments

The five countries have had varying levels of multi-lateral and bi-lateral investment in adaptation. Nepal is the furthest forward in terms of the accrual of outside investments in climate adaptation and resilience. As well as the substantial funds through the PPCR ($110m), there are also large-scale projects supported by EU/DFID, USAID and others. These projects address different sectors and approaches, including watershed restoration, biodiversity, ecosystem-based adaptation, and local adaptation planning. The scale of the funds has highlighted the urgency of supporting the government to put a system in place to evaluate their development effectiveness. The government is currently over-burdened by the multiple projects, and their reporting and M&E requirements. In Mozambique the PPCR funds ($86m) are supported by a large Development Policy Operation ($150 million), and the leveraging of other funds could make the whole sum worth about $350 million. This is of interest for the TAMD initiative. Firstly, these large investments are currently in the process of being developed, making them good candidates for feasibility testing. Secondly, and of more importance, is the PPCR institutional and capacity building component, that seeks to develop broader M&E frameworks and bring together different interventions to coordinate results-based M&E frameworks. This creates an important policy window for the TAMD initiative to engage in. Discussions were had with staff from funding organisations in both countries to maximise synergies.

Kenya has various projects such as the Africa Adaptation Initiative, the Africa Risks Programme, and some relevant programmes under preparation with the European Union. As well as these, the Kenya National Climate Change Response Strategy sets out important policy areas and initiatives for national action.

Conversely, Ghana and Pakistan have had little external investment in adaptation. Ghana does not have significant externally funded adaptation projects as yet, but the feasibility of the TAMD approach can be tested with projects that fall under the National Climate Change Adaptation Strategy or with development projects that have adaptation benefits. Pakistan has one climate adaptation intervention that is recognised as such by the government, the Glacial Lake Outburst Flood project managed by UNDP and funded by the UNFCCC Adaptation Fund. Government officials consider that large-scale initiatives such as the Sustainable Land Management programme, the Coastal Zone Protection, and other smaller civil society initiatives closely related to climate adaptation would be suitable for testing the feasibility of the TAMD approach.

8.3 M&E frameworks

Even though some of the countries are embarking upon large-scale adaptation investments, so far no cross-intervention evaluative frameworks have been developed. Several countries are, however, beginning to address issues of coordinating M&E and strengthening relevant systems and institutions. For example in Ghana an M&E plan has been drawn up that includes the development of an institutional framework for coordinating the M&E system as a whole. The plan also aims to establish

monitoring indicators against the Adaptation Strategy baselines and targets. In Kenya subcomponent 6 of the Climate Change Action Plan, 'National Performance and Benefit Measurement', is developing a national climate change measuring, reporting and verification system along with performance indicators. Within this, the TAMD framework is being used to guide the design of the adaptation evaluative framework.

As discussed in the previous section, in Nepal and Mozambique the PPCR will address M&E more broadly than just at the component level, although there are not yet any proposed models for cross-intervention comparisons. For example, in Nepal, component 3 of the PPCR includes capacity building on M&E for adaptation, and alignment and co-ordination of initiatives in the Ministry for Environment, Science and Technology. As part of this, the ministry intends to create a Climate Change Program Results Framework and to establish a Management Information System to better co-ordinate adaptation interventions, align results frameworks and set baselines.

8.4 The opportunities for developing TAMD in each case country

The scoping activities have found that whilst climate change planning and the scale of adaptation investments vary in each country, all five countries are now turning towards the development of frameworks to monitor and evaluate performance, and that there is widespread interest in this area. The timing of TAMD feasibility testing is particularly opportune, as it will build on this recognition of the need for robust approaches to monitor and evaluate both domestic and external interventions that support adaptation to climate change. The feasibility testing will be well timed to work in conjunction with interventions such as the PPCR and the GEF projects.

In each country, the government agencies approached (the climate change mandated ministries and planning agencies) expressed interest in being part of the development of the TAMD approach, and relationships are developing to take this forward. Each country will have its preferred mechanisms for doing this. In some cases a formal steering committee will be most appropriate, for example in Ghana. In others, the work may be in coordination with other adaptation interventions to minimise the burden on government officials and maximise the opportunities and synergies across programmes. Research orgaisations have also shown interest in the work, and many have existing expertise of relevance.

9. Conclusions

The scoping phase has found out the current situation in each of the case countries in terms of the policy context, climate change policy development, adaptation interventions and M&E frameworks. This work has established that frameworks for monitoring and evaluating adaptation and development across sectors and interventions are not in use, and that the TAMD approach is appropriate and relevant for all five countries. It has also shown that the relevant government agencies are interested in engaging in steering the development of a bespoke TAMD framework for their national context, and see a real utility in such a tool. The large differences in national circumstances with regards to climate policy development and adaptation initiatives will shape how each government considers it best to apply the TAMD approach. On the basis of the scoping activities and background research, the TAMD initiative appears ready to move into the next stage of appraisal and design.

The appraisal and design phase will work in each of the five countries in partnership with local research organisations. Prototype models will be developed in each country for testing in each unique context. This will be on the basis of assessments of data availability, baselines, gaps in current climate risk assessments, adaptation interventions and existing national M&E systems. The work will include development of theories of change to link upstream and downstream evaluation, and the identification of indicators. The prototypes will be discussed with policy stakeholders in a set of national workshops. On the basis of these discussions, the feasibility testing will begin.

Project materials

Climate change

Keywords:
Monitoring and evaluation (M&E), Ghana, Kenya, Mozambique, Nepal, Pakistan, TAMD

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