



# RISK-INFORMED DEVELOPMENT

A Strategy Tool for  
Integrating Disaster Risk Reduction and  
Climate Change Adaptation into Development

## Annex C:

The Mainstreaming Spheres of Action  
Guidance Tables



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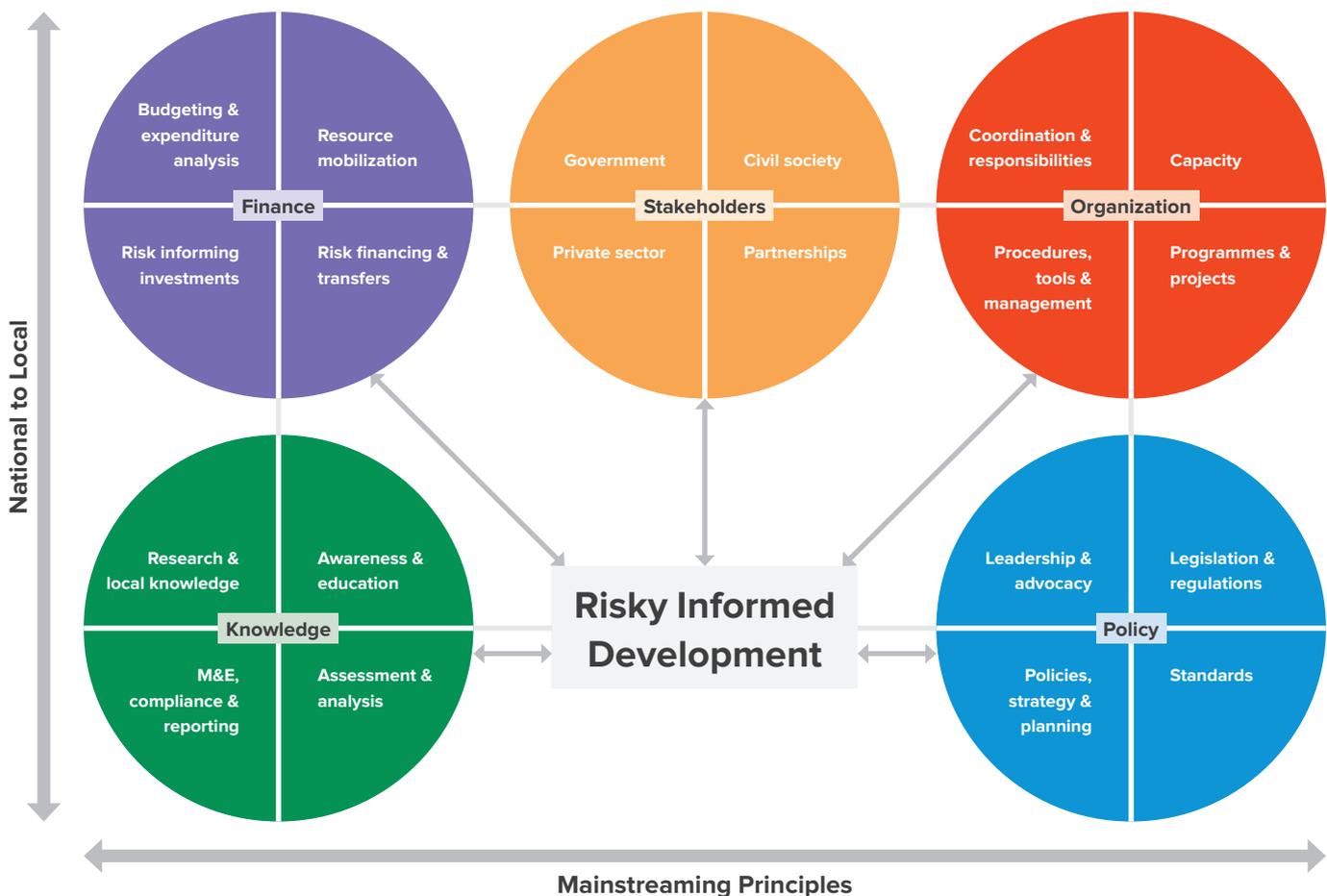
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# Overview of mainstreaming components

This standalone Annex accompanies the UNDP tool “*Risk-Informed Development: A Strategy Tool for Integrating Disaster Risk Reduction and Climate Change Adaptation into Development*”. It provides a guide to the five spheres of action for mainstreaming (knowledge, policy, finance, organization and stakeholders) in *Figure 1* below.

Figure 1: Mainstreaming Components and Sub-Components



**In the following sections, sub-components/entry points for each component are detailed in a series of tables, providing practitioners with guidance on the following:**

- Overview of **what** is meant by the entry point and **what support** is needed for combined DRR and CCA mainstreaming;
- Explanation of **why** the entry point is relevant for mainstreaming;
- Identification of **who** is usefully involved in strengthening this mainstreaming entry point;
- Overview of **how** practitioners can strengthen this mainstreaming entry point;
- Summary of expected **results** from supporting this mainstreaming entry point;
- Identification of key **challenges** experienced by practitioners;
- List of relevant practitioner **tips**;
- List of potentially useful **tools** to help strengthen this entry point and identification of gaps in existing tools;
- Reference to a **checklist**<sup>1</sup> for the entry point, which will be developed following piloting; and
- List of illustrative **case studies** for the entry point.

**It is important to note that the guidance in the tables is not meant to be a prescriptive recipe for supporting each entry point**, but instead identifies possible approaches to strengthening each entry point in support of mainstreaming based on the experiences and case studies shared by practitioners.

*Several detailed case studies are provided in the separate mainstreaming tool, in addition to the illustrative case studies provided at the end of each component in this Annex.*

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<sup>1</sup> These will provide “how to” checklists specifying key considerations specific for both DRR and CCA mainstreaming for each sub-component.

# 1. Knowledge



## Awareness raising & education

What is this entry point?	
Awareness & education	<ul style="list-style-type: none"> <li>• <b>An important foundation for DRR and CCA mainstreaming is knowledge of hazards, changes, vulnerabilities/sensitivities and their interaction with development.</b></li> <li>• <b>Awareness is a critical driver for mainstreaming</b> and is linked to a number of activities such as education, lobbying/advocacy, campaigning, networking, communication, mobilizing people and working with the media to increase understanding of risk and the need for mainstreaming. These aim to demonstrate that proactive treatment of risk is cost-effective.</li> </ul>
What is needed?	
Increase understanding of risk	<ul style="list-style-type: none"> <li>• <b>Awareness raising and education are needed to raise understanding and appreciation of why risk is a development issue,</b> and to ensure that risk is properly factored into decision making on a systematic and ongoing basis over the long term.</li> <li>• <b>It may be necessary as part of awareness raising to share (local) examples</b> of the potential impacts of climate change and disaster hazards to convince stakeholders of the benefits of risk management and to foster political commitment (and mobilize resources).</li> </ul>
Behavioral change	<ul style="list-style-type: none"> <li>• <b>Increased awareness and understanding over time will help change the culture, attitudes and behaviour</b> of development practitioners to ensure that risk is dealt with as an integral part of development and not as an externality.</li> <li>• <b>Awareness raising can help drive a new agenda (or strengthen existing efforts)</b> which will likely face resistance in order to support a shift in mindset and behavior.</li> </ul>
Increase prioritization of risk	<ul style="list-style-type: none"> <li>• <b>Commitment and prioritization of risk is needed to ensure that stakeholders</b> (from government to household level) prioritize risk informed mainstreaming.</li> <li>• <b>Awareness and education are also needed to help build a culture of safety where reducing risk is valued as an important priority.</b> This is crucial in contexts where economic development is perceived as a separate and much more important aspiration than adaptation and disaster risk reduction.</li> </ul>
Why is this important for mainstreaming?	
Lack of risk awareness	<ul style="list-style-type: none"> <li>• <b>Lack of awareness and appreciation for the ways in which risk is created and potential impacts on development</b> is a major barrier to mainstreaming.</li> <li>• <b>Awareness raising and education helps to make the case for, build understanding, and prioritize</b> risk informed development.</li> </ul>
Who should be involved?	
All levels	<ul style="list-style-type: none"> <li>• <b>Advocates are needed at all levels and in all sectors</b> to ensure that mainstreaming is internally or locally driven.</li> </ul>
Focal points within government	<ul style="list-style-type: none"> <li>• <b>The best advocates or educators work from within government</b> and have key attributes (e.g. leadership and authority, risk knowledge, commitment, communication skills, respectability) to support ongoing and regular awareness raising.</li> </ul>
Education sector	<ul style="list-style-type: none"> <li>• <b>Integrating risk into mainstream education can provide the foundation for more permanent awareness raising</b> as well as specific training on DRR and CCA. The education sector will need to be involved from the onset to integrate DRR-CCA into the mainstream education system and technical curriculum for professionals and civil servants.</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Map baseline	Identify current level of risk awareness amongst development policy makers, planners.	<p><b>Government focal point(s) in key agencies have increased awareness of risk and its links with development.</b></p> <p><b>Awareness raising material is widely available for the relevant level (e.g. sector).</b></p> <p><b>Stakeholders at all levels of society have the knowledge to reduce risks and change behavior.</b></p>
Identify focal points	Identify focal points (i.e. key influencers, advocates) who can raise awareness and motivate greater participation from other government officers, civil society or the private sector on an ongoing basis (see <i>Leadership in Policy Component</i> ).	
Prepare awareness raising & education strategy	<p>Prepare an awareness raising strategy in alignment with existing development agendas and decision-making processes. This could be a national, sector or local strategy depending on the focus of mainstreaming. It should identify: who needs influencing, how, when, what information is required and who can help (i.e. allies).</p> <p>Capitalize on existing learning opportunities, (i.e. formal school and university education, training events, informal education such as community radio) to build the case for DRR and CCA. The strategy could include support to incorporate risk into the school curricula or to universities to help develop specialist degree programs that focus on understanding vulnerability and the disaster-climate-development nexus. Integrating DRR/CCA into professional education of target groups such as engineers, architects, medical staff as well government civil servant is another crucial aspect for raising awareness on the need for risk informing policies, regulations, projects etc.</p>	
Develop awareness raising & education material	Target different audiences with awareness raising and education material/sessions tailored to specific audiences – speaking their language and addressing their interests (e.g. awareness raising presentations, sector risk briefings). Technical guidance, training and education may need to be provided to local engineers, architects, masons, builders and other professions.	
Implement strategy	Implement an awareness raising and advocacy campaign on an ongoing basis potentially using different types of media to increase coverage and reach more vulnerable sectors of society than the printed press. For example, site visits for government officials and policy makers.	

### Challenges

Political economy	<ul style="list-style-type: none"> <li>A clear understanding of the national political environment, including power dynamics amongst key audiences is required, recognizing that the starting position for most stakeholders is likely one of apathy.</li> </ul>
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### Practitioner tips

Ongoing awareness	<ul style="list-style-type: none"> <li>Awareness raising and education is an ongoing process that takes advantage of opportunities as they emerge.</li> </ul>
Coalition of change agents	<ul style="list-style-type: none"> <li>Additionally, a coalition of advocates or change agents is likely to be more successful: <i>“the main advocacy message is ‘not to address DRR-CCA in silos,’ active consistent and systematic consultation and awareness-raising with all key development actors is necessary (Malani, Fiji)</i></li> </ul>

### Toolkit

Existing tools & gaps	<ul style="list-style-type: none"> <li>[Practitioners to identify existing generic tools (e.g. sector risk management briefings) and gaps where a new tool might be needed]</li> </ul>
Checklist	<ul style="list-style-type: none"> <li><b>Awareness raising &amp; Education Checklist (to be developed)</b></li> </ul>

### Case studies

Solomon Islands	<ul style="list-style-type: none"> <li>The value of agriculture sector awareness raising tools.</li> </ul>
Zimbabwe & India	<ul style="list-style-type: none"> <li>Integrating risk management into the school curriculum.</li> </ul>
Uganda	<ul style="list-style-type: none"> <li>Developing a course for public service staff on disaster and climate resilience.</li> </ul>

# Research and local knowledge

What is this entry point?	
Research & local knowledge	<ul style="list-style-type: none"> <li>• <b>These are critical elements of mainstreaming as they help build an understanding of climate and disaster risks</b> founded on solid research and local knowledge for any given context and as a basis for determining how the risks can be reduced.</li> <li>• <b>Capturing and developing this understanding</b> involves bringing together multiple different information sources and disseminating tailored information to user communities in ways that enable them to make decisions with beneficial outcomes.</li> </ul>
Science	<ul style="list-style-type: none"> <li>• <b>Science and technology play an increasing role in identifying and providing innovative solutions</b></li> </ul>
What support is needed?	
Increase access	<ul style="list-style-type: none"> <li>• <b>Mainstreaming requires access to quality data sources</b> such as historical data on climate and disasters and future projections, which provide a bedrock for knowledge and are needed to inform understanding of short, medium and long-term risks.</li> </ul>
Support access to scientific data	<ul style="list-style-type: none"> <li>• <b>Scientific information and knowledge are supported by research</b> and may be carried out by local universities and research centers (often in partnership with NGO). Targeted climate products and services can advance efforts to analyze, reduce, manage and finance risks associated with hydro-meteorological hazards (Tang, WMO)</li> </ul>
Use of local knowledge	<ul style="list-style-type: none"> <li>• <b>Local knowledge is vital</b> for understanding how risks relate to, and are treated among local people. This entry point not only supports use of local level knowledge, but ensures that DRR/CCA is realistic and suitable and grounded in local realities.</li> </ul>
Improve communication	<ul style="list-style-type: none"> <li>• <b>Communication pathways need to be established</b> to ensure regular and relevant communication and information sharing between key stakeholders. Climate data in particular can be inaccessible to those without technical knowledge and therefore this data needs to be shared and translated for development practitioners. The value of weather, climate and natural hazard information tends to increase with the quality, accuracy, timeliness, location specificity and user-friendliness of the information. Information needs to be translated to relate to local livelihoods, contexts and experiences.</li> </ul>
Why is this important for mainstreaming?	
Evidence based decision making	<ul style="list-style-type: none"> <li>• <b>Development decision makers need credible, accurate, context-specific, targeted, relevant and user-friendly information</b> in a language that is readily understood to empower them to make risk informed development decisions. Governments need to make sure that risk information is available to guide investment decisions in public and private sectors</li> </ul>
Baseline information	<ul style="list-style-type: none"> <li>• <b>Good baseline information and robust time series information</b> are key for long-term risk monitoring and assessments, not only for hazards but for evaluating vulnerability and exposure.</li> </ul>
Innovation	<ul style="list-style-type: none"> <li>• <b>Research findings inform and guide awareness raising and advocacy efforts</b> and ground these activities in up-to-date and relevant information and provide innovation solutions and technologies to advance risk management.</li> </ul>
Joint action	<ul style="list-style-type: none"> <li>• <b>Effective information sharing</b> is essential to strengthen dialogue and engagement between DRR, CCA and development practitioners.</li> <li>• <b>Communication across disciplines and sectors</b> will help address barriers linked to a lack of understanding of synergies and need for joint action. Communication is also needed between information providers and information users at all levels, including communities.</li> </ul>
Who should be involved?	
Multi-stakeholders	<ul style="list-style-type: none"> <li>• <b>Requires combined effort</b> of scientists, practitioners, decision makers, educators and civil society/community. Agencies that have the scientific, technical and services expertise to deliver specialized products and services play an important role in mainstreaming (see <a href="#">Partnerships</a>).</li> </ul>
Information providers	<ul style="list-style-type: none"> <li>• Scientific and research organizations (e.g. specialized research centers/universities) regional organizations, national research agencies, multilateral agencies, CSOs, national agencies (e.g. hydro-met); and communities (disaggregated by social structure, i.e. elderly, women, leaders).</li> </ul>
Information users	<ul style="list-style-type: none"> <li>• Policy makers, strategic planners, investment planners (national, subnational, sector), regulators, urban planners, private sector (e.g. insurers) and civil society.</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Identify sources	<b>Document knowledge sources, researchers &amp; holders of relevant information, research and technology</b> at local, national, regional and international levels, and confirm the existing process for collecting, storing and updating data on hazards, vulnerabilities, risk and risk management including indigenous knowledge, mapping, compilation and documentation.	<p><b>Collaboration of information providers &amp; users</b> to provide targeted risk information, research and technologies for policy makers and planners</p> <p><b>Improved information</b> which is updated regularly and accessible to end users (i.e. GIS risk maps, forecasts).</p> <p><b>Risk communication platform/systems</b> where risk information, research &amp; technology are shared in appropriate formats to end users.</p>
Identify users & needs	<b>Identify existing/potential users</b> (notably within the development sphere), needs and current gaps in provision of user-friendly (actionable) information. For example, a workshop could be convened or a working group to clarify user needs (i.e., risk maps for sector planners, risk projections for policy maker), challenges (e.g., uncertainty associated with risk decision-making) and how these can be addressed	
Agree & implement knowledge management plan & protocol	<b>Develop a plan that:</b> i) agrees roles and responsibilities for data collection, research and dissemination to decision making and planning; ii) confirms knowledge management activities (e.g. a workable and properly resourced risk database or a national Risk Atlas) that is updated regularly; iii) strengthens links with information and research providers; iv) identifies training needs (e.g. interpretation of climate science); v) schedules regular knowledge provider/user meetings; vi) develops a communications protocol between relevant stakeholders; and vii) confirms capacity development needs (e.g. to ensure sustainability of knowledge management systems for risk informed development).	
Communication mechanism/strategy	<b>Develop a mechanism for knowledge &amp; information sharing</b> to help match information with end user needs. Strengthen communication pathways for sharing and communicating information to all level government decision makers, the private sector and externally to the general public. Where possible, building on existing coordination mechanisms e.g. working groups, online platform.	
Challenges		
Knowledge fragmented	<ul style="list-style-type: none"> <li>• <b>Knowledge is often fragmented</b> within and among different stakeholder groups.</li> <li>• <b>There may be competition for data</b> and lack of appetite for open sharing.</li> </ul>	
Data quality & quantity	<ul style="list-style-type: none"> <li>• <b>Development planners can be overwhelmed</b> by the vast amounts of information available.</li> <li>• <b>Data quality can be weak and timing of research does not always link</b> to decision making schedules.</li> </ul>	
Tools	<ul style="list-style-type: none"> <li>• <b>Lack of evidence based tools for decision making</b>, for example in Cambodia (IIED, 2013).</li> </ul>	
Practitioner tips		
On-line information	<ul style="list-style-type: none"> <li>• <b>Draw upon the openly available data sources</b> (e.g. World Bank and Earth Observation Satellite data) for fast-track gains towards improving knowledge on climate and disaster risks in data-constrained countries and internal networks (e.g. the International Network for Multi-Hazard Early Warning Systems (IN-MHEWS) (Tang, WMO).</li> </ul>	
New technology	<ul style="list-style-type: none"> <li>• <b>Research institutions play a key role in bringing techniques and technology</b> which could help in mainstreaming DRR and CCA (Biyani, India).</li> </ul>	
Communication	<ul style="list-style-type: none"> <li>• <b>Multiple and well-used or new channels of communication</b> are needed to share research and knowledge that draws upon diverse technologies such as radio networks, internet, mobile phone services and social media.</li> </ul>	
Toolkit		
Existing tools	<ul style="list-style-type: none"> <li>• <i>[Practitioners to identify existing tools e.g. UNISDR has disaster loss database (DISINVENTAR) e.g. CART tool to support communication with "at risk populations"]</i></li> </ul>	
Checklists	<ul style="list-style-type: none"> <li>• <b>Checklists for information providers and information users (to be developed)</b></li> </ul>	
Case studies		
Kenya	<ul style="list-style-type: none"> <li>• International risk reduction day to showcase local knowledge</li> </ul>	
Pacific	<ul style="list-style-type: none"> <li>• Community knowledge hubs for sharing resilient agriculture techniques</li> </ul>	
Solomon Islands & Armenia	<ul style="list-style-type: none"> <li>• GIS risk mapping to inform planning and land-use zonation</li> </ul>	
Armenia, Mozambique & Angola	<ul style="list-style-type: none"> <li>• Monitoring and interpreting climate data</li> </ul>	

# Assessment and analysis

What is this entry point?	
Risk assessment & analysis	<ul style="list-style-type: none"> <li>• <b>Assessment and analysis can determine the nature and extent of disaster and climate risks</b>, existing vulnerability conditions and the impacts of potential losses/damage on the achievement of national, subnational or sector development goals, plans and projects.</li> <li>• <b>Risk assessment &amp; analysis ultimately aims to provide public protection and safety</b> from the risks that may occur. Risk assessment, therefore, is an integral part of decision and policy-making processes, and requires close collaboration among various parts of society.</li> </ul>
What support is needed?	
Integrate into development processes	<ul style="list-style-type: none"> <li>• <b>Support is needed to ensure that risk assessment and analysis are used to inform sustainable development and incorporated into existing</b> development decision-making, planning and programming processes as a matter of practice and are not one-off events.</li> </ul>
Develop integrated /joint processes	<ul style="list-style-type: none"> <li>• <b>Support is needed to ensure assessments are comprehensive and take into account multiple risks</b> (including socioeconomic risks) and particularly climate and disaster risk and their combined impact on development activities as well as the dynamic and changing nature of risk.</li> <li>• <b>Application of risk assessments for both climate and disaster risks differs widely in terms of</b> geographical and temporal scope; and multiple methods are available and vary significantly between stakeholders.</li> <li>• <b>It is important that “joint” standardized assessments</b> are carried out that cover all relevant risks <i>and</i> avoid unnecessary duplication of effort, resources and capacity and avoid community fatigue.</li> </ul>
Strengthen analysis	<ul style="list-style-type: none"> <li>• <b>Support is needed to integrate risk into existing assessment processes and tools</b> (e.g. provincial profiling, project risk screening) as far as possible</li> </ul>
Why is this important for mainstreaming?	
Assessment supports action	<ul style="list-style-type: none"> <li>• <b>The drivers of disaster risk are in the control of policy makers, society, and individuals</b>—but accurate assessment and continuous re-evaluation of risks are required to enable effective risk reduction and prevent drastic increases in future losses (GFDRR, 2016).</li> <li>• <b>Risk assessments can drive action and shape decisions</b> (ODI, 2012).</li> </ul>
Identify hazard exposure	<ul style="list-style-type: none"> <li>• <b>Assessment is critical for understanding disaster and climate risks to and from both public and private development activities</b> at all levels.</li> <li>• <b>Assessment is a crucial part of site selection for development projects</b> because it can help planners avoid hazard prone sites or locations at risk from climate change effects.</li> </ul>
Identify vulnerabilities	<ul style="list-style-type: none"> <li>• <b>Assessment can also identify the main sources of vulnerability within a country</b> (e.g. physical, human/social, economic/financial, environmental and institutional) and this can help <a href="#">shape development</a> towards reducing vulnerability, supporting adaptation, and targeting key areas or vulnerable groups.</li> </ul>
Standardized assessments	<ul style="list-style-type: none"> <li>• <b>Multiple risk assessment processes are carried out by different stakeholders using different tools.</b> It will be important to rationalize and standardize these processes to avoid duplication (and resource waste) and to promote joint assessments of climate and disaster risks linked at all levels.</li> </ul>
Who should be involved?	
Public development planners	<ul style="list-style-type: none"> <li>• <b>Although national level assessments</b> will need the combined input of a number of stakeholders (including technical agencies), ideally <a href="#">development planners</a> (national and sector) will have the capacity developed to carry out assessments as part of standard development procedures.</li> <li>• <b>Subnational planners will need to work with communities</b> to build local capacity to assess local development priorities for risk. For example, risk assessments are often not done by spatial planning authorities and yet sustainable spatial planning is a key entry point for CCA/ DRR mainstreaming (Guambe, UNHABITAT).</li> </ul>
Private sector & permitting agencies	<ul style="list-style-type: none"> <li>• <b>Increasingly risk is being incorporated into the consent process and private sector developers and permitting agencies</b> will need to assess these risks as part of the Environmental (and social) Impact Assessment (EIA) process (<a href="#">see Private sector entry point</a>).</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Workshop & mapping	<b>A national workshop is the ideal forum for bringing a range of stakeholders together to map existing assessment processes, tools and needs</b> of sector and subnational planners, NGOs, development partners, private sector. This will help: i) identify existing assessment processes, scope and tools; ii) assessment needs in relation to development profiling and planning cycles at national and subnational level; and iii) relevant sources of information.	<p><i>Joint risk assessment is integral to development decision making and planning processes &amp; activities.</i></p> <p><b>Standardized methodology and tools are agreed and implemented</b> to ensure linkages between assessments at all levels and to avoid duplication.</p> <p><b>Government and private sector planners have the capacities to carry out assessments (with support from civil society).</b></p>
Develop standardized joint methodology	<b>Develop a standardized joint risk assessment methodology (and tools) which can be tailored to different levels.</b> This needs to detail responsibilities for supervising, leading; coordinating with subnational government; which stakeholders to involve; responsibilities for identifying and monitoring emerging risks; and reviewing, monitoring and validating the assessment process. This process can be mandated through legal frameworks and institutional arrangements	
Develop standardized joint tools	<b>Practical tools will be need to be developed for the application of risk assessment</b> at different levels (e.g. community projects), different purposes (e.g. assessment of policy objectives versus project risks) and for different stakeholders (e.g. public sector investment and private sector development assessment tools).	
Roll-out	<b>Advocate for inclusion of risk assessment in development processes</b> to risk inform development policy and planning processes, identify if there is adequate budget for additional technical expertise and ensure the widespread engagement of multiple stakeholders (to improve buy-in and ownership and avoid duplication).	
Knowledge management	<b>Information storage will be important.</b> For example, an essential component of understanding risk is disaster loss databases that provide historical information on hazard-related losses and damages over time. This data can then be used for validating assessments and for monitoring the effectiveness of DRR/CCA measures.	
Challenges		
Data heavy	<ul style="list-style-type: none"> <li><b>In the past risk assessment has been “data heavy”</b> and risk information has been the starting point as opposed to development policies, plans or projects, which then incorporate risk assessment.</li> </ul>	
Undertainty	<ul style="list-style-type: none"> <li><b>Uncertainty associated with projections</b> and therefore confidence in the risk assessments.</li> </ul>	
Practitioner tips		
Simple	<ul style="list-style-type: none"> <li><b>Risk screening should be simple</b>, for example not include sophisticated likelihood/consequence ratings at the community/subnational level.</li> </ul>	
Dynamic assessments	<ul style="list-style-type: none"> <li><b>Dynamic risk assessments are needed given that risk is not static</b> and that disaster and climate risk is changing extremely fast, due to combined dynamics of hazard, exposure, and vulnerability.</li> </ul>	
Joint Assessment and Analysis	<ul style="list-style-type: none"> <li><b>Comprehensive assessment that takes into account all relevant risks</b> e.g., financial, management, environment, social and contextual issues is essential.</li> </ul>	
A learning process	<ul style="list-style-type: none"> <li><b>The process of undertaking a multi-stakeholder risk assessment</b> is often as valuable (or more so) than the product.</li> </ul>	
Toolkit		
Existing tools	<ul style="list-style-type: none"> <li><i>Practitioners to identify e.g. Guidance Note 3: Assess Climate Risk (World Bank) – agriculture</i></li> </ul>	
Checklists	<ul style="list-style-type: none"> <li><b>Checklist for developing standardized joint assessments at different levels (to be developed)</b></li> </ul>	
Case studies		
Indonesia	<ul style="list-style-type: none"> <li>Joint DRR, CCA and gender analysis.</li> </ul>	
Malawi	<ul style="list-style-type: none"> <li>Risk assessment &amp; analysis to support mainstreaming.</li> </ul>	
Solomon Islands	<ul style="list-style-type: none"> <li>Risk assessing private sector developments.</li> </ul>	

# Monitoring & evaluation, compliance & reporting

What is this entry point?		
Monitoring	<ul style="list-style-type: none"> <li>• <b>Provides an opportunity to:</b> i) track progress towards DRR/CCA objectives or results agreed in national, subnational or sector strategies, policies, plans or projects; ii) check if assumptions are still valid; iii) identify if implementation has been affected by risks; and iv) identify whether adjustments are needed. A national monitoring system can therefore track progress made against risk informed policy and development objectives.</li> </ul>	
Evaluation	<ul style="list-style-type: none"> <li>• <b>Determines if the objectives and outcomes were met</b> and whether these resulted in worthwhile contributions to development priorities. A well-structured evaluation is important for risk informed interventions given that risks are often felt to be “invisible” with success measured by the absence of a disaster or climate change impact.</li> </ul>	
Compliance	<ul style="list-style-type: none"> <li>• <b>Regulatory compliance involves ensuring adherence</b> to laws, regulations, standards, guidelines and specifications relevant.</li> </ul>	
Reporting	<ul style="list-style-type: none"> <li>• <b>Reporting allows key stakeholders to share and track progress.</b></li> </ul>	
What support is needed?		
Risk inform processes	<ul style="list-style-type: none"> <li>• <b>To ensure that risk is part of core M&amp;E processes and tools</b> to evaluate the success of mainstreaming.</li> </ul>	
Standardization	<ul style="list-style-type: none"> <li>• <b>To standardize evaluation and reporting processes</b> across different sectors.</li> </ul>	
Build capacity	<ul style="list-style-type: none"> <li>• <b>To develop capacity to monitor and evaluate development activities</b> from a risk perspective and to ensure compliance with core regulations relevant for risk management as well as quality control.</li> </ul>	
Why is this important for mainstreaming?		
Stock take progress	<ul style="list-style-type: none"> <li>• <b>To determine whether specific projects and policies are actually making a difference</b> in terms of reducing disaster risk and building adaptation capacities.</li> <li>• <b>To take stock of any changes in risk patterns</b> given the dynamic nature of risk in a changing climate and to take account of other relevant changes (e.g. social or political).</li> <li>• <b>To help government, funding agencies, and implementing partners make mid-course corrections</b> and if necessary revise activities and indicators.</li> </ul>	
Check compliance	<ul style="list-style-type: none"> <li>• <b>To check compliance, increase accountability and increase the likelihood that the risk management elements are implemented effectively.</b> Monitoring is useful for identifying compliance with risk informed regulations including private sector compliance with relevant regulations.</li> </ul>	
Learning	<ul style="list-style-type: none"> <li>• <b>To provide a basis for lessons learning</b> and improving the effectiveness of risk informed development.</li> </ul>	
Who should be involved?		
Technical officers	<ul style="list-style-type: none"> <li>• <b>Ensure gender, socioeconomic and DRR/CCA specialists</b> form part of the M&amp;E teams – or at the least have provided training to government M&amp;E officials on these issues.</li> </ul>	
Sector planners	<ul style="list-style-type: none"> <li>• <b>Sector planners should be involved to help define key performance indicators for DRR/CCA</b> and where possible baseline values and targets for monitoring the line ministry’s risk strategic plan. Sector ministries may each have a comprehensive monitoring and information system and may collect useful information.</li> </ul>	
National statistics office	<ul style="list-style-type: none"> <li>• <b>It is important to coordinate and strengthen the national statistics office</b> and related institutions, as these can be responsible for providing quality control on development indicators and coordinating overall data collection and analysis.</li> </ul>	
How can it be supported?		
Activity	Details	Expected results
Map monitoring systems	<p><b>Timelines and targets linked to national monitoring systems should be mapped</b> to identify the most appropriate timing for risk informing and influencing these. National monitoring systems are continuously reviewed and data collection cycles (e.g. five-year household surveys, provincial profiles) are closely linked with cyclical national development plans and strategies.</p>	<p><b>Standardized M&amp;E framework</b> across the different levels, which incorporates multiple risks</p> <p><b>Clear roles and responsibilities and capacities</b> for M&amp;E</p>
Consultation	<p><b>Consultation, coordination and cooperation across all the ministries and departments will be needed</b> to document existing processes, guidelines/ tools and agree cross-cutting goals for M&amp;E. Identifying key institutions and establishing a cross-sectoral working group will improve working relationships across these institutions and make the case to revisit the existing monitoring system to incorporate risk.</p>	<p><b>Outcome indicators</b> should be formally adopted as part of a country’s performance budgeting system and linked to national goals and the SDGs.</p>

How can it be supported?		
Activity	Details	Expected results
Risk inform	<b>Agree a risk informed national M&amp;E framework.</b> This includes incorporating risk into the existing M&E system for development (where this exists), notably: baseline data collection; agreeing an approach for monitoring and impact evaluation; selecting indicators; and developing tools for data collection and monitoring. Possible indicators should be formulated through a participatory process. Ensure quality control through triangulation of methods and incorporating different viewpoints, including through participatory processes.	<p><b>Standardized M&amp;E framework across the different levels, which incorporates multiple risks</b></p> <p><b>Clear roles and responsibilities and capacities for M&amp;E</b></p> <p><b>Outcome indicators should be formally adopted as part of a country's performance budgeting system and linked to national goals and the SDGs.</b></p>
Agree lead unit and develop capacity	<b>Identify and strengthening capacity of existing dedicated host government unit or establish a new unit</b> for improving project monitoring and enforcement including risk issues ( <i>see Organization Component</i> ). These units must have strong expertise and high-level political backing. Where these are existing, it may be necessary to strengthen the performance of existing regulatory agencies to understand risk. A lead unit (e.g. in planning) is needed to ensure standardization across sectors. Technical manuals and courses should be developed for M&E of projects, especially in sectoral programs, to guide internal and external evaluators and encourage consistency in the use of methodology e.g., inspection procedures for evaluating compliance	
Develop procedures	<b>Develop risk informed procedures for monitoring and evaluating progress and enforcing standards</b> (e.g., building inspectors to certify buildings and ensure code compliance for hospitals, schools, water supplies, roads). Ensure there is a focus upon outcomes (e.g. the direct and indirect benefits) rather than only outputs (e.g. the number of people trained or the number of items supplied) ( <i>see procedures entry point</i> ).	
Continuous review	<b>The incorporation of risk into</b> the cyclic planning and monitoring process will take time and it will be important to continuously review and refine the adoption, application and effectiveness of risk indicators. Even if indicators are adopted at a national level, it might be that no data is collected (given lack of ownership or capacity).	
Challenges		
Absence of data	<ul style="list-style-type: none"> <li><b>Absence of qualitative and quantitative baseline data</b> in many countries on sector-specific disaster losses and reconstruction costs, meaning that baselines and related indicators are difficult to put in place. Many countries lack good baseline data and information on historical trends.</li> </ul>	
Disaggregated data	<ul style="list-style-type: none"> <li><b>Disaggregated data is needed to capture different levels of progress</b> within a country and to help understand why a region lags and prioritize support for these regions. However, this information is not always readily available.</li> </ul>	
Measuring avoidance	<ul style="list-style-type: none"> <li><b>Measuring the absence or reduction of an impact/disaster</b> along with difficulty isolating the performance of a specific project activity given wider developments and external factors.</li> </ul>	
Lack capacity	<ul style="list-style-type: none"> <li><b>Lack of resources and technical capacity can make enforcement and monitoring challenging</b> including penalties for non-compliance.</li> </ul>	
Practitioner tips		
Indicators & benchmarks	<ul style="list-style-type: none"> <li><b>Identifying appropriate risk sensitive benchmarks and indicators</b> (e.g. output, outcome, impact indicators) should be developed, but complexity and uncertainty associated with climate change makes this difficult.</li> </ul>	
Certification	<ul style="list-style-type: none"> <li><b>Voluntary certification has emerged as an alternative to government monitoring</b> but should not replace government effort.</li> </ul>	
Toolkit		
Existing tools	<ul style="list-style-type: none"> <li><i>[Practitioners to identify e.g. Guidance Note 8: Monitor Progress and Evaluate Results (World Bank) – agriculture; International Standards of Supreme Audit Institutions e.g. ISSAI 55100 – the audit of DRR; Nepal National Planning Commission's Approach Paper with results-based CCA and DRR indicators]</i></li> </ul>	
Checklists	<ul style="list-style-type: none"> <li><b>Checklist for risk informing M&amp;E, compliance and reporting processes</b> (to be developed)</li> </ul>	
Case studies		
Samoa	<ul style="list-style-type: none"> <li>Piloting a tool as a basis for mainstreaming and measuring progress.</li> </ul>	
Cayman Islands	<ul style="list-style-type: none"> <li>Inspection and licensing of new building developments.</li> </ul>	

# Case studies: Knowledge

## Awareness & Education

### Awareness Raising:

- **Sector awareness raising tools in Solomon Islands.** A number of advocacy and awareness raising tools were prepared by the new Risk Resilient Development (RRD) post in the Ministry of Agriculture and Livestock (MAL) – the sector focal point for climate and disaster risk management. The post is able to provide ongoing awareness and information sessions from within the ministry to assist staff to mainstream disaster and climate risk into development practice. Essential sector awareness raising material including agriculture sector risk briefings, presentations and training material tailored for different audiences (such as agricultural policy makers or extension workers) have also been prepared (Sipuru Rove, RRD Director, MAL, Solomon Islands).

### Education:

- **Integrating risk management into the school curriculum in Zimbabwe.** The department of Civil Protection is working with the Ministry of Education to integrate risk management into school teaching. The teachers' resource book now includes a chapter on CCA/DRR (Meliquiniso Sibanda, Government of Zimbabwe, LDF 5, MADRID).
- **Mainstreaming risk management into school curriculum in India.** The process of mainstreaming DRR into the school curriculum in India began in 2003. The Central Board for Secondary Education was first to introduce DRR into the schools' syllabus, in social sciences for grades 8, 9 and 10. A committee of teachers, UNDP personnel, and academics designed and developed the contents of the textbooks, which included chapters on hazards, the development of preparedness and response plans, search and rescue, first aid and mock drills in schools. This was accompanied by training sessions for teachers to enhance their knowledge of disaster management and provide them with skills to carry out the drills. Care was taken to ensure that the DRR information added to the syllabus was gender sensitive. Also teacher training included information on gender issues in DRR (UNDP, 2010).
- **A short university course for disaster and climate resilience in Uganda.** Makerere University developed a six-week course: "Professional Certificate Course in Disaster and Climate Resilience" aimed at staff from public services and other key partners to support mainstreaming of disaster and climate risk as required by the National Policy for Disaster Preparedness and Management. As a primarily on-line course, it is low cost and can be easily repeated to propagate skills and knowledge of government officials (ICRM, 2015).

## Research & Local Knowledge

### Research:

- **Climate monitoring and assimilating information into existing development planning and disaster management systems in Angola.** Angola suffers from "insufficient climate monitoring infrastructure." As a result, the UNDP-GEF



has provided support to procure and install satellite monitoring equipment, provided training to Provincial Government and Civil Protection officers to operate and maintain this equipment, and importantly strengthened the Civil Protection's capacity for assimilating forecasts and monitoring into existing development planning and disaster management systems (including the provincial contingency plan) (UNDP-GEF).

#### **Local knowledge:**

- **Using International Risk Reduction day to showcase local knowledge in Kenya.** The government used this opportunity to bring communities together, showcase successful activities, and highlight the role of indigenous knowledge for DRR/CCA mainstreaming (Nathan Kigotho, Government of Kenya, LDF 5, MADRID).
- **Community knowledge hubs for resilient agriculture in the Pacific.** Agriculture Knowledge hubs have been established in communities across a number of Pacific countries (e.g. Tonga, Vanuatu, Fiji, Solomon Islands) to provide a platform for regular information exchange and training on climate resilient crop varieties and farming techniques between subnational government, extension workers, NGOs and communities.

#### **Information communication:**

- **Land use zonation and GIS mapping in Armenia.** As a result of science-based climate risk assessment and land-use zonation, a multi-risk modeling was conducted in 10 cities of Armenia (in Vayots Dzor, Shirak, Lori, Tavush, Syunik regions), GIS maps were developed ensuring risk informed urban development, taking also into account the cascading effect of mixed geological and climate related hazards. As a result, community heads have provided recommendations for risk informed community planning and use (Armen Chilingaryan, DRM Programme Manager, UNDP Armenia, 2021; ICRMP, 2016).
- **Risk maps for planners in Solomon Islands.** A new knowledge management post for resilient development was created within the Ministry of Environment, Climate Change, Meteorology and Disaster Management (MECDM) to support data sharing across ministries and develop a [Risk Resilient Development GIS database](#) to provide risk maps for development planners to inform every day planning. This has enhanced the capacity of planners to make risk informed decisions, for instance when selecting potential project sites or prioritizing development projects. In time risk maps will also be rolled-out to inform sub-national planning (Reginald Reuben, RRD GIS Officer, MECDM).
- **Interpreting climate data for sector users in Mozambique.** The Ministry of climate has established a monitoring scheme, which involves field visits and reviewing satellite information. It then provides an annual prognosis for the rainy season (and quarterly reports), which interpret information for the agriculture sector and disseminate information to main users (e.g., NGOs, government, private sector) (Anacleto Botao, Government of Mozambique, LDF 5, MADRID).
- **Systems for monitoring and sharing CRM related information.** In Armenia, 25 out of existing 46 stations were modernized with installation of automatic weather stations, increasing accuracy of data collection, analysis and weather forecast by 60%. A unified system was established integrating existing

hydrometeorological, water management and agro-meteorological stations, including recently acquiring 2 mobile road-meteorological stations. ICRMP has facilitated capacity-building for two key actors from the meteorological system to ensure that essential information is shared (Armen Chilingaryan, DRM Programme Manager, UNDP Armenia 2021; ICRMP, 2015).

## Assessment & Analysis

### Project assessment & analysis:

- **Developing a joint assessment methodology for DRR and CCA in Indonesia.** At present, the Ministry of Environment uses an assessment methodology for climate vulnerability, with analysis based on government administrative boundaries. Meanwhile, the National Disaster Management Agency has developed a disaster risk assessment methodology with analysis based on location or exposed/potentially exposed areas. This includes climate factors to asset risk, but this is based on historical data, whereas ideally it should also include climate projection scenarios. Further, both assessment methodologies use separate criterion, indicators and analysis techniques, making it difficult for local government to comprehensively identify the risks they face, in particular for climate-related risks. Coupled with limited technical capacities of local authorities, this has led to a lack of synergy in planning documents and measures to address risk. As a result, the Integrated Climate-induced Disaster Risk Management (IC-DRM) project is producing indicators and a methodology for a joint Climate Vulnerability and Risk and Disaster Risk Assessment for undertaking risk assessments of a region and to produce location specific climate-related disaster risk maps.
- **Incorporating gender analysis into disaster and climate risk assessments in Indonesia.** UNDP has also helped the government of Indonesia improve its disaster and climate risk assessment process by developing guidelines for gender analysis along with collecting gender disaggregated data. UNDP has also helped the government incorporate gender concerns into the formulation of its DRR-CCA framework and policies through gender reviews and participation of the Ministry of Women's Affairs in the DRR platform (UNDP, ICRMP).
- **Risk assessment & analysis to support mainstreaming DRR/CCA into spatial planning in Malawi.** The disaster prone Karanga District is situated in the northern part of Malawi. The original land-use plan was prepared in 2006 and is up for revision in 2016. To support mainstreaming, analysis was carried out to identify local hazards and vulnerabilities resulting in risk mapping, which identified that earthquakes, droughts, strong winds and floods are the most frequent hazards, exacerbated by illegal construction and development on floodplains, poor construction, deforestation and climate change. A new plan was developed with key recommendations based on the analysis and community discussions (James Chiusiwa, Government of Malawi, LDF-5, MADRID).
- **Risk assessing private sector developments in Solomon Islands:** recruitment of a CCDRM officer within the environment division of the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) meant that disaster and climate risk was incorporated into the Environment Assessment guidelines used to assess private sector development and the supporting legal framework (e.g. Environment Act and Regulations).

## Monitoring & Evaluation, Compliance & Reporting

### Monitoring & evaluation:

- **Evidence-based score card on the integration of gender, disability, DRR and CCA in Samoa.** The Disaster Management Office (DMO) is tasked with assessing mainstreaming in 14 sectors across the whole of government and reporting corporately as well as nationally. A simple draft tool has been developed and is being piloted, based on other examples across the Asia Pacific, but specifically for use in Samoa. The rationale is to provide an evidence-based scorecard that examines sector plans, progress reports and disaster recovery efforts. It assigns scores on how sectors are also integrating DRR as well as gender, disability and climate change. The assessment is done by DMO in partnership with the sector (who provides a self-assessment) and is used as a means for furthering discussion to improve mainstreaming, identify recommendations, and agree follow-up activities. Importantly, the tool also provides a baseline to measure change and hence provides a simple indicator that is used to monitor and evaluate performance (Karen Medica, Samoa).

### Compliance:

- **Inspection and licensing on the Cayman Islands.** The Cayman Islands remain vulnerable to impacts from hurricanes of categories four and five. The Cayman Islands adopted the Southern Building Code (U.S) in 1995 and it is rigorously enforced for new developments. All buildings must get approval from the Planning Department, and regular inspections are carried out during construction. Property elevation is a requirement and set at five feet above mean sea level; but this is often inadequate for mitigating the effects of storm surges in coastal areas. Furthermore, the building code mandates that new properties should be able to withstand category 3 hurricanes, despite the Cayman Islands being hit periodically with category 4 and 5 cyclones. It is currently considered cost prohibitive and is a disincentive to future developments to seek a more rigorous code. The Builder's Law (2007) requires that contractors are licensed and obtain liability insurance. The law requires both construction businesses and their employees to register with the Builders Board (UNDP, 2010/ ISDR, 2014).

# 2. Policy



## Leadership & advocacy

What is this entry point?	
Leadership & commitment	<ul style="list-style-type: none"> <li>• <b>Leadership, political commitment and political will are essential for mainstreaming</b> as they help prioritize more proactive management of risks as part of development planning and budgeting.</li> </ul>
Advocacy	<ul style="list-style-type: none"> <li>• <b>Advocacy is about influencing people, policies, structures and systems</b> from government to household level to bring about change and prioritize risk informed mainstreaming. Governments have their own institutional agendas and efforts to try and drive a new agenda may face resilience. Advocacy involves lobbying, campaigning, networking, awareness raising, communicating, negotiating mobilizing people and working with the media. Effective advocacy is a critical tool for ensuring that DRR/CCA are mainstreamed.</li> </ul>
What support is needed?	
Champions need to be identified	<ul style="list-style-type: none"> <li>• <b>Leaders or champions</b> need to be identified and ideally at all levels.</li> <li>• <b>For mainstreaming to take hold, technicians and decision makers need to become mainstreaming champions</b> particularly in the apex planning unit (but also in civil society organizations, research organizations and private sector associations – <i>see Stakeholder Component</i>).</li> </ul>
Why is this important for mainstreaming?	
Risk on the political agenda	<ul style="list-style-type: none"> <li>• <b>Leadership puts risk on the political agenda</b>, provides a vision, drives prioritization of risk and spearheads change in development approaches. Leadership for DRR/CCA is often lacking.</li> </ul>
Key driver	<ul style="list-style-type: none"> <li>• <b>Leadership can “open doors” to success</b> with other components and helps drive mainstreaming.</li> </ul>
Who should be involved?	
Government leadership	<ul style="list-style-type: none"> <li>• <b>Government leaders or advocates</b> at national, sector and subnational level, preferably from within a planning or finance apex ministry or unit.</li> </ul>
Community leadership	<ul style="list-style-type: none"> <li>• <b>Community leaders</b> are important to champion and support risk informed community projects with support from subnational government.</li> </ul>
Private leadership	<ul style="list-style-type: none"> <li>• <b>Private sector leaders</b> (e.g. chamber of commerce) are essential for engaging businesses (<i>see Stakeholder Component</i>).</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Identify champions	<b>At least one high-level political champion</b> who can drive mainstreaming forward, secure public and political support and deal with critics should be identified by analyzing the political economy and determining key influencers. Ideally the champion is from finance or planning ministries, although joint leadership with the ministry responsible for climate change or disaster management is equally valid. Not necessarily just individual leadership, but institutional leadership can be considered, such as cross-sectoral committee or working group for risk informed or resilient development.	<b>One or more leaders or champions for risk informed development at national and subnational level.</b>  <b>Increased political commitment and prioritization of risk informed development.</b>
Advocacy	<b>Clear advocacy message</b> identifying the benefits of proactively investing in risk management will need to be prepared. These will draw upon existing research and knowledge of risk trends and impacts, which can also be used to engage with media or national NGOs (who in turn can create civil society demand to advocate for change) (see <a href="#">Knowledge Component</a> ).	
Spot opportunities	<b>High level international or political events</b> can help generate or renew political attention and commitment and provide opportunities for champions to advocate for risk informed development. Post disaster situations provide an opportunity to galvanize initial signs of political wiliness to address risk.	
Challenges		
Short term vision	<ul style="list-style-type: none"> <li><b>Commitment of politicians who are under pressure</b> to show short term visible achievements, given the mismatch with the need for long term planning and actions for risk informed development</li> </ul>	
Underestimation	<ul style="list-style-type: none"> <li><b>Even if there is awareness of risk there is often an underestimation of the likelihood of disaster events or climate change</b> occurring often made worse by a lack of information, low demand from citizens to be proactive, low visibility, lack of experience and competing priorities (ODI, 2014).</li> </ul>	
Practitioner tips		
Joint leadership	<ul style="list-style-type: none"> <li><b>Good practice is to identify joint leadership</b> between the planning/finance and CC/DRM technical unit at national level.</li> </ul>	
Local leadership	<ul style="list-style-type: none"> <li><b>Subnational government champions</b> are an important force for driving change and galvanizing local and community leadership.</li> </ul>	
Advocacy material	<ul style="list-style-type: none"> <li><b>Need to develop advocacy materials for key financial and planning institutions</b> as well as line ministries, at the national and subnational levels (Stella &amp; Kansuk, Ghana).</li> </ul>	
Toolkit		
Existing tools & gaps	<ul style="list-style-type: none"> <li><i>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</i></li> </ul>	
Checklist	<ul style="list-style-type: none"> <li><b>Checklist for strengthening leadership and commitment at national, sector and subnational levels (to be prepared)</b></li> </ul>	
Case studies		
Mozambique	<ul style="list-style-type: none"> <li>National level champion to support mainstreaming.</li> </ul>	
Solomon Islands	<ul style="list-style-type: none"> <li>Joint national leadership driving forward mainstreaming.</li> </ul>	
The Gambia	<ul style="list-style-type: none"> <li>Regional Leadership Development Forum held to increase political commitment.</li> </ul>	
Bhutan	<ul style="list-style-type: none"> <li>Leadership Group to support mainstreaming.</li> </ul>	
Vanuatu	<ul style="list-style-type: none"> <li>National level champion from the Department of Local authorities to support subnational mainstreaming.</li> </ul>	
Fiji	<ul style="list-style-type: none"> <li>A subnational champion (Commissioner Western) leading subnational mainstreaming and advocacy.</li> </ul>	
Honduras	<ul style="list-style-type: none"> <li>Advocacy workshops and decision-level meetings.</li> </ul>	

# Legislation & regulation

What is this entry point?		
Explaining the entry point	<ul style="list-style-type: none"> <li>• <b>A risk informed legal and regulatory framework</b> provides an enabling environment for mainstreaming by establishing the legal rights of citizens, and the duties of the state, agencies and stakeholders such as the private sector.</li> <li>• <b>Relevant legislation includes:</b> i) <u>dedicated DRM laws</u> (e.g. civil protection law, DRR law or Climate Change Bill); ii) <u>sectoral laws</u> for development that need to integrate DRR/CCA considerations (e.g. building codes, land use planning, urban regulations, protective area regulation, climate change, environmental protection, coastal management, infrastructure, social welfare and education); and iii) <u>cross-cutting or meta-laws</u> that provide references to support risk governance (e.g. human rights, legal liability).</li> <li>• <b>Ideally, DRR and CCA are dealt with together in the same legislation; and preferably as part of development legislation</b> rather than as stand-alone legislation.</li> </ul>	
What support is needed?		
Risk inform legislation	<ul style="list-style-type: none"> <li>• <b>Governments need to identify where DRR/CCA should be incorporated into national, sector or subnational legislation relating to development</b> rather than kept as stand-alone laws, because this increases likelihood of implementation.</li> </ul>	
Develop integrated legislation	<ul style="list-style-type: none"> <li>• <b>Governments need to ensure that where necessary DRR and CCA should be combined in “joint” legislation, if there is no possibility of mainstreaming</b> into existing development or poverty reduction legislation (or at the very least develop joint implementation plans).</li> </ul>	
Why is this important for mainstreaming?		
Establishes incentives	<ul style="list-style-type: none"> <li>• <b>Risk informed legislation provides the authoritative basis to progress DRR/CCA</b> planning and mainstreaming.</li> <li>• <b>Legislation can set out enforceable incentives and disincentives</b> to ensure officials fulfil their responsibilities related to DRR and CCA and dissuade individual actors from putting themselves or others at unacceptable risk. Laws need to facilitate implementation of new policies and support for example, the private sector in adopting voluntary-compliance measures through partnerships.</li> </ul>	
Demonstrates commitment	<ul style="list-style-type: none"> <li>• <b>Updating and strengthening legislation with DRR/CCA demonstrates commitment</b>, clarifies priorities and drives action across multiple agencies and sectors.</li> </ul>	
Promotes dialogue & engagement	<ul style="list-style-type: none"> <li>• <b>Legislation can engage communities</b> in playing a role in reducing their own exposure to risks and hazards by ensuring the deployment of adequate resources to engage.</li> <li>• <b>Updating/strengthening legislation also identifies gaps and improves dialogue and understanding</b> between stakeholders.</li> </ul>	
Builds cohesion	<ul style="list-style-type: none"> <li>• <b>Separate legislation for DRR and CCA can result in duplicated functions, institutional responsibilities and interventions.</b></li> </ul>	
Who should be involved?		
Government officials	<ul style="list-style-type: none"> <li>• <b>Lawmakers and implementing officials</b> from planning, finance, sectors and CCA/DRM units</li> </ul>	
Civil society	<ul style="list-style-type: none"> <li>• <b>Development and implementation of legislation requires involvement of a wide range of stakeholders</b>, for example, risk informed legislation itself should guarantee engagement of key stakeholder groups by assigning clear roles and responsibilities and providing specific provision to ensure meaningful engagement of women, minorities, people with disabilities and the elderly.</li> </ul>	
How can it be supported?		
Activity	Details	Expected results
Legal review	<p><b>Map existing laws and regulations, timetable for updates and development of new legislation or regulations</b>, as a useful starting point. In reality, various forms of legislation, national and sub-national, has already been developed and this will provide the starting point.</p>	<p><b>Legislation for DRR and CCA are combined to support unified guidance (and ideally separate from DM law).</b></p> <p><b>DRR and CCA are included in any new or updated legislation for development with clear identification of roles, responsibilities, functions procedures and budgets.</b></p>
Gap analysis	<p><b>Identify risk gaps and priorities for action</b> including how to converge disparate legislation/regulations for CCA and DRR and risk inform new or existing legislation.</p>	
Technical advice	<p><b>Where necessary draw on the technical expertise</b> of legal experts for DRR and CCA to provide advice on integrated legislation and incorporation into existing legislation.</p>	
Consultation	<p><b>Development and implementation</b> requires involvement of a wide range of stakeholders and also provides an opportunity to increase awareness (as part of consultation on proposed changes) and secure buy-in.</p>	

Challenges	
Resources & capacity	<ul style="list-style-type: none"> <li>• <b>Lack of financial, human or technical resources and capacity</b> for full implementation, monitoring and enforcement (see <i>Finance</i> and <i>Organizational Components</i>)</li> </ul>
Compliance	<ul style="list-style-type: none"> <li>• <b>Compliance and enforcement are key challenges</b> (see <i>knowledge component</i>)</li> </ul>
Practitioner tips	
Incentives	<ul style="list-style-type: none"> <li>• <b>Incentives to motivate actions</b> of a range of key stakeholders (e.g. governments, academia, scientists, NGOs) should be included in the legal framework (Choi, Korea).</li> </ul>
Gender & social inclusion	<ul style="list-style-type: none"> <li>• <b>Laws should require that gender considerations and the special needs</b> of vulnerable groups are adequate, given that vulnerability is a key determinant of risk. It will also be important to consider custom law.</li> </ul>
Toolkit	
Existing tools & gaps	<ul style="list-style-type: none"> <li>• <i>Checklist and Handbook to support review and revision of laws and regulations for DRR (UNDP and IFRC). [Practitioners to identify other useful tools and outstanding gaps]</i></li> </ul>
Checklist	<ul style="list-style-type: none"> <li>• <b>Checklist for mainstreaming risk into national, sector and subnational legislation</b> (to be prepared)</li> </ul>
Case studies	
Philippines	<ul style="list-style-type: none"> <li>• Mainstreaming into national and local laws.</li> </ul>
Vanuatu	<ul style="list-style-type: none"> <li>• New national Climate Change and Disaster Risk Reduction Policy.</li> </ul>
Zimbabwe	<ul style="list-style-type: none"> <li>• Revising the DRR Bill to incorporate CCA.</li> </ul>

# Policies, strategies & plans

What is this entry point?		
Policies	<ul style="list-style-type: none"> <li>• <b>Policies are vision statements and translate political commitment</b> for DRR and CCA (including national commitments to global policy frameworks such as SDGs, Sendai, UNFCCC) into context appropriate statements indicating courses of action that should be adopted.</li> </ul>	
Strategies	<ul style="list-style-type: none"> <li>• <b>Strategies are long term roadmaps</b> setting out approaches for achieving a vision.</li> </ul>	
Plans	<ul style="list-style-type: none"> <li>• <b>Development plans</b> define desired development outcomes, build consensus on obstacles and opportunities for achieving outcomes, define the role and contribution of different sectors and stakeholders in achieving outcomes, and provide a framework within which more detailed planning and budgeting can take place at regular intervals. They tend to focus on economic growth, employment and poverty reduction. They are normally established through a cyclical process led by the national planning institutions.</li> </ul>	
What support is needed?		
Risk inform	<ul style="list-style-type: none"> <li>• <b>As far as possible it is important to integrate risk into existing and planned national, sector and subnational development policies, strategies and plans</b> rather than create standalone policies/strategies for DRR and CCA.</li> </ul>	
Integration	<ul style="list-style-type: none"> <li>• <b>If this is not possible, then an integrated “umbrella policy” for both CCA and DRR</b> that outlines roles and tasks of ministries/agencies in relation to disaster and climate change risk is needed to avoid duplication.</li> </ul>	
Why is this important for mainstreaming?		
Framework for risk is needed	<ul style="list-style-type: none"> <li>• <b>Government need to develop the policy, strategy and planning architecture that details</b> institutional arrangements for risk including what needs to happen, location of responsibility, organizational procedures, capacity development, coordination and partnerships for risk. Policy and/or strategy established at the national level will subsequently guide the course of action taken by relevant sectors and actors at all levels.</li> </ul>	
Who should be involved?		
Technical experts	<ul style="list-style-type: none"> <li>• <b>DRR/CCA experts from technical government agencies will need to support development policy makers and planners when there are planned updates</b> to existing national, subnational and sector development policies, strategies and plans.</li> </ul>	
Key stakeholders	<ul style="list-style-type: none"> <li>• <b>It is essential that a wide range of stakeholders are consulted and actively participate</b> in the development of policies, strategies and plans (e.g. communities should lead the development of community development plans supported by sub-national government).</li> </ul>	
How can it be supported?		
Activity	Details	Expected results
Mapping	<p><b>Identify timeframes for developing new/or updating existing policies, strategies and plans</b> to highlight integration opportunities for DRR/CCA and identify global policy commitments and relevant timeframes. <i>[Note planning procedures/processes supporting development of national, sector, subnational and community plans are discussed in the <a href="#">Organization Component</a>].</i></p>	<p><b>Risk informed development strategies, policies and plans</b> at all levels, clearly identify vision, objective, roles and responsibilities, activities, and resources for climate and disaster risk management.</p> <p><b>Wide support for risk informed policies, strategies and plans</b> as a result of extensive consultation process behind their development.</p>
Identify priorities	<p><b>It may not be possible to integrate risk into all policies up for renewal</b>, or new strategies being prepared; however, it is useful to identify where there is likely to be maximum synergy between existing agendas and the incorporation of beneficial DRR and CCA components to support those agendas. It might be that linking separate policies and plans (e.g. NAPAs) to development policies and plans is a priority.</p>	
Risk inform	<p><b>This should be based on the priorities, needs and engagement of diverse stakeholders</b> from all levels and ideally balance “bottom up” (i.e. community) and “top-down” priorities, issues and knowledge for DRR/CCA. It will be important to draw upon capacity from technical ministries to examine existing policies and review from a CCA/DRR perspective.</p>	
Consult widely	<p><b>Consult widely on proposed changes</b> – providing an opportunity for awareness raising/training, buy-in, commitment, support, capacity and resources for implementing proposed vision, roadmap and interventions.</p>	
Implementation plan	<p><b>Risk informed policies, strategies and plans</b> are a starting point, however it is their implementation that is crucial, and it will be important to identify key roles and responsibilities for implementing key actions.</p>	

Challenges	
Duplication	<ul style="list-style-type: none"> <li>• <b>Lack of harmonization of policies for DRR and CCA</b>, overlap and wasted resources.</li> </ul>
Local policies	<ul style="list-style-type: none"> <li>• <b>Conversion of national or sector policies into local policies</b> can require an effective decentralization process and active participation of all stakeholders.</li> </ul>
Ownership	<ul style="list-style-type: none"> <li>• <b>Creating externally driven standalone risk policies or new duplicating policies with little local ownership</b> by key stakeholders. For example, climate change policies have not always been successful as they have been externally driven and funded, and not always formulated in relation to economic and social realities and goals.</li> </ul>
Timing	<ul style="list-style-type: none"> <li>• <b>Opportunities for integration depending on the timing of planned updates</b> and these need to be carefully monitored to ensure risk expertise is involved early on.</li> </ul>
Practitioner tips	
Incremental steps	<ul style="list-style-type: none"> <li>• <b>Build on existing frameworks, leverage opportunities as they emerge, and promote interactions and strengthen interlinkages</b> amongst sectors through joint meetings or high-level policy forums (Choi, Korea).</li> </ul>
Strategic plans	<ul style="list-style-type: none"> <li>• <b>National Strategic Plans for strengthening and modernizing National Meteorological and Hydrological services (NMHSs)</b> will automatically contribute to DRR and CCA (Tang, WMO).</li> </ul>
Toolkit	
Existing tools & gaps	<ul style="list-style-type: none"> <li>• <i>[Practitioners to identify useful tools and gaps]</i></li> </ul>
Checklist	<ul style="list-style-type: none"> <li>• <b>Checklists for risk informing policies, strategies &amp; plans</b> (to be prepared)</li> </ul>
Case studies	
National strategies	
Solomon Islands	<ul style="list-style-type: none"> <li>• Risk informing the National Development Strategy (2016-35) and Medium Term Development Plan.</li> </ul>
Angola	<ul style="list-style-type: none"> <li>• Risk informing the National Strategy.</li> </ul>
Ghana	<ul style="list-style-type: none"> <li>• Mainstreaming DRR and CCA into national policies and plans.</li> </ul>
Sector strategies & policies	
Zimbabwe	<ul style="list-style-type: none"> <li>• Risk informing the comprehensive agriculture policy framework.</li> </ul>
Solomon Islands	<ul style="list-style-type: none"> <li>• Risk informing agriculture sector policy.</li> </ul>
Tonga	<ul style="list-style-type: none"> <li>• Risk informing the Agricultural Sector Plan.</li> </ul>
National, sector & subnational development plans	
Mozambique	<ul style="list-style-type: none"> <li>• Risk informing government plans.</li> </ul>
Tajikistan	<ul style="list-style-type: none"> <li>• Risk informing national and district plans.</li> </ul>
South Sudan	<ul style="list-style-type: none"> <li>• Linking the NAPA with national development plans.</li> </ul>

# Standards

What is meant by this entry point?	
Standards	<ul style="list-style-type: none"> <li>• <b>Standards are a set of tools that embody national and/or international best practice</b> in a given field. They typically set out desired characteristics of a product or process. They exist at all levels from technical specification of equipment to governance and management systems. For example, building codes and construction standards are essential for making houses or infrastructure more resilient.</li> <li>• <b>Standards are voluntary.</b> By definition they are not mandatory, although their reference in laws or contracts can increase compliance by making adherence to standards a requirement of regulators or contracts (Jachia, 2014).</li> <li>• <b>Standards can be used to ensure that climate and disaster risk are considered in:</b> i) development projects (e.g. design &amp; building of infrastructure), service delivery (e.g. water supply and pollution control) and in the management of government assets (OECD, 2009).</li> </ul>
How can it be supported?	
Incorporate into regulations	<ul style="list-style-type: none"> <li>• <b>Enhancing their role in legislation and regulatory practice.</b> Standards are of limited value unless an integral part of regulatory frameworks and backed by appropriate audit and assurance.</li> </ul>
Increase incentives	<ul style="list-style-type: none"> <li>• <b>Encouraging their adoption by the private sector</b> by identifying incentives for the voluntary adoption (e.g. contracting requirements).</li> </ul>
Increase awareness	<ul style="list-style-type: none"> <li>• <b>Increasing awareness and accessibility of standards</b> through appropriate handbooks, materials and education programs including capacity building for key stakeholders to support uptake of standards.</li> </ul>
Why is this important for mainstreaming?	
Risk-based regulatory framework	<ul style="list-style-type: none"> <li>• <b>Standards offer guidance to authorities in building risk-based regulatory frameworks</b> in all sectors that are relevant to DRR, specifically, housing, infrastructure, electrotechnical equipment and the management of ecosystems.</li> </ul>
Prevent and decrease risk	<ul style="list-style-type: none"> <li>• <b>Authorities and businesses can use voluntary standards to <u>prevent risks</u></b> (e.g. environmental standards, CSR standards supporting a move to more sustainable and resilient production and consumption); <u>reduce risk</u> (e.g. risk management, product and process standards such as building codes, land management best practice, electrotechnical standards); and iii) <u>strengthen crisis management capacity</u> (e.g. business continuity and emergency standards).</li> </ul>
Share responsibility	<ul style="list-style-type: none"> <li>• <b>Standards support a shared responsibility for disasters and climate change</b> as they promote accountable, transparent and shared decision-making processes. They represent an important tool to establish the enabling environment and proper incentives for downstream agencies and actors to integrate risk management considerations into their activities (OECD, 2009).</li> </ul>
Consistency	<ul style="list-style-type: none"> <li>• <b>Standards provide common terminology and processes.</b> They facilitate adoption of common risk management terminology and methodology by diverse stakeholders supporting consistent approaches across and between sectors. They also provide sound metrics, allowing for comparison across different sectors, geographical areas and for measuring progress.</li> </ul>
Who should be involved?	
Standardization community	<ul style="list-style-type: none"> <li>• <b>Should be involved in raising awareness of the value of standards</b> for disaster and climate risk management building upon experience with environmental standards.</li> </ul>
Government	<ul style="list-style-type: none"> <li>• <b>Governments should drive increased use of standards in regulations.</b></li> </ul>
Private sector	<ul style="list-style-type: none"> <li>• <b>This is an important entry point for private sector stakeholders,</b> for example standards on business continuity and disaster management are essential to protect economic productivity and may be required in regulations or contracts.</li> </ul>
Civil society	<ul style="list-style-type: none"> <li>• <b>Standards can help involve new stakeholders in risk management</b> by using a language that business, NGOs and communities understand and by setting out commitments that civil society find in their own best interest to conform to.</li> </ul>

How can it be supported?		
Activity	Details	Expected results
<b>Awareness session</b>	<b>Increase awareness on standards.</b> Hold an awareness raising session to increase understanding of the potential role standards can play to reduce and prevent climate and disaster risks. Government should invite key experts from the standardization community to raise the profile of relevant standards.	<i><b>Inclusion of key standards in core regulations.</b></i>  <i><b>Increase capacity to implement and monitor key standards.</b></i>
<b>Review</b>	<b>Initiate a review of key regulations to identify which regulations should identify specific standards</b> and ensuring that international standards are tailored and relevant to the country context. For example, standards can be referenced in regulations that address safety of schools and hospitals or how infrastructure should be built. Similarly, the review can identify how risk management best practice (as well as crisis management) can be embedded more fully into regulatory frameworks for key sectors to ensure coordination, standardization and accountability.	<i><b>Incentives promoting the uptake by businesses and other key stakeholders.</b></i>
<b>Facilitate access &amp; training</b>	<b>Facilitate access and training of relevant standards by businesses and NGOs.</b> This could include collaboration with standards development bodies and academia to increase standardization into high school, university and vocational curricula. Standards cannot be implemented in a vacuum and need to be sustained by capacity for ensuring compliance (e.g. testing the safety/resilience of houses, bridges, transport networks, utilities) (see <a href="#">M&amp;E, compliance and enforcement entry point</a> ).	
<b>Incentives</b>	<b>Increase implementation of voluntary codes</b> by identifying key incentives e.g. business awards for voluntary adoption of standards; ensuring training on resilient building techniques; compliance with building code standards are specified in contracts.	
Challenges		
<b>Multiple tools available</b>	<ul style="list-style-type: none"> <li>• <b>Competition with other available tools</b> and many local organizations are not sufficiently aware of their potential value</li> </ul>	
<b>Re-design regulatory framework</b>	<ul style="list-style-type: none"> <li>• <b>Regulatory frameworks need to be updated to incorporate standards for risk</b> and ensure that standards and codes are implemented. Need to enhance integration of standards, regulatory frameworks and assurance programs to ensure better implementation and outcomes for communities.</li> </ul>	
<b>Accessibility</b>	<ul style="list-style-type: none"> <li>• <b>Standards need to be made more accessible</b> through appropriate handbooks, materials and education programs linked with capacity building for policy makers, businesses, engineers, regulators, infrastructure builders, managers, municipalities and insurance providers to ensure implementation. Costs of accessing international standards and even more substantial implementation costs can be prohibitive for small NGOs, voluntary organizations, small businesses. Therefore, national standards should be developed alongside support for their implementation.</li> </ul>	
<b>Implementation</b>	<ul style="list-style-type: none"> <li>• <b>Poorly implemented standards can compound poor accountability of decision-making by</b> all stakeholders.</li> </ul>	
<b>Lack of standards</b>	<ul style="list-style-type: none"> <li>• <b>One of the biggest challenges is the lack of standards and definition of terminology</b> around DRR, CCA and resilience.</li> </ul>	
Practitioner tips		
<b>Awareness</b>	<ul style="list-style-type: none"> <li>• <b>Increase awareness among DRR/CCA practitioners</b> on the relevance of standards</li> </ul>	
<b>Changing trends</b>	<ul style="list-style-type: none"> <li>• <b>Standards should not lock in adaptation to past conditions</b> and instead encourage recognition of changing climate trends and risk landscape by incorporating projections.</li> </ul>	
Toolkit		
<b>Existing tools &amp; gaps</b>	<ul style="list-style-type: none"> <li>• <b>Most relevant standard is ISO 31000:2009 – Risk Management</b></li> <li>• <i>[Practitioners to identify other existing tools and gaps where new tools are needed]</i></li> </ul>	
<b>Checklist</b>	<ul style="list-style-type: none"> <li>• <b>Checklist for using standards for risk management; or Checklist for Incorporating Risk into the Regulatory Framework (to be prepared)</b></li> </ul>	
Case studies		
<b>Indonesia</b>	<ul style="list-style-type: none"> <li>• Consideration of ISO 31000 principles for developing risk assessment methodologies.</li> </ul>	
<b>Chile</b>	<ul style="list-style-type: none"> <li>• Strict building codes and careful land planning are critical to reducing lives.</li> </ul>	
<b>Japan</b>	<ul style="list-style-type: none"> <li>• Incorporating standards into building regulations.</li> </ul>	
<b>Solomon Islands</b>	<ul style="list-style-type: none"> <li>• Voluntary training on standards as part of contracting.</li> </ul>	

# Case studies: Policy

## Leadership & Advocacy

- **National level champions in Mozambique.** A number of new emerging champions are evident at national level including the President, the Prime Minister, the speaker, the Ministers of Public Works and Housing, Land, Environment and Rural Development. Further DRM/CCA teams are active in key sectors (e.g. energy, roads, agriculture, social protection) (LDF 5, MADRiD).
- **Joint leadership in the Solomon Islands.** Joint leadership from the Permanent Secretaries of the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) and the Ministry of Development Planning and Aid Coordination (MDPAC) has helped advocate for mainstreaming and risk informed development. These senior champions are also advocating for “in-house” capacity and awareness raising to support mainstreaming from “within” the development apex and line ministries (Adi Galokepoto, UNDP PRRP).
- **Regional Leadership Development Forum (RLDF) to increase political commitment in Africa for mainstreaming.** This was convened by the MADRiD program in October in 2013 in The Gambia (for mid to high level officers from sectoral ministries including planning and finance and technical experts or training organizations) to increase political commitment and social demand for resilient development and develop country mainstreaming implementation plans through joint problem solving (Bibhuti Bhusan, NDMA-UNDP, The Republic of Gambia).
- **Leadership group in Bhutan.** A Mainstreaming Reference Group, chaired by the country’s planning commission was mandated by a prime ministerial decree to support mainstreaming into the five-year development plan and related policies and programs (UNDP/UNEP, 2015).
- **National level champions in Vanuatu for subnational mainstreaming.** The Director General and Minister for Internal Affairs have championed the case for risk mainstreaming at the sub-national level. With this leadership, a new risk informed planning processes has been developed, piloted and is now being rolled-out” (Malcolm Dalesa, Vanuatu, UNDP PRRP).
- **Advocacy as an essential ingredient for mainstreaming in Fiji.** Starting with a good champion first has proved quite successful in the Pacific with this leadership coming from unexpected places such as local government in Fiji. “The Commissioner for the Western division in Fiji, is pioneering a ‘risk informed’ approach to development and planning at sub national level. This example illustrates the importance of strong leadership and commitment to support mainstreaming.” The leadership of the Commissioner Western is showcasing a proposed integrated way of providing risk informed decisions in good times as well as disaster times and his approach is now being adopted in the Northern division later in 2016. “We are finding that advocacy is an essential ingredient to promote more sustained change in how development and risks are approached – not as separate parallel processes, but together – in other words risk informed development” (Manoa Malani, UNDP PRRP, Fiji).
- **Advocacy workshops and decision-level meetings in Honduras.** Progress has been made on political advocacy for climate and disaster risk management and their inclusion in policies and institutions via meetings with the Ministry of Environment, Ministry of Agriculture and the Ministry of Planning. As a result, a methodology on how to manage risk at the local level was developed and has been piloted (UNDP ICRMP).

## Legislation & Regulation

- **Mainstreaming climate and disaster risk management into national and local laws in Philippines.** In 2010, the Government of Philippines signaled a shift from post-disaster response to prevention and risk reduction. It enacted the Disaster Risk Reduction and Management Act and adopted a Strategic National Action Plan for DRR, effectively institutionalizing a comprehensive and integrated approach to risk reduction. In early 2013, a National Summit for Local Chief Executives was agreed to ensure a comprehensive understanding of the local government role in risk management. Prioritizing the strengthening of local level governance, the Philippines is now pursuing the integration of climate resilience into local ordinances, policies and plans. The government is planning to continue focus on mainstreaming with specific emphasis on integrated disaster risk management and climate resilience into the Comprehensive Land Use Plan and other local laws, policies and plans (UNISDR-GETI, 2016).
- **A new joint CCA and DRR policy in Vanuatu.** A new integrated (but standalone) National Climate Change and Disaster Risk Reduction (CCDRR) Policy was developed by the Ministry of Climate with support from National Advisory Board's CCDRR Policy task force (Malcolm Dalesa, UNDP PRRP, Vanuatu).
- **Revising the Disaster Risk Reduction Bill in Zimbabwe to incorporate CCA.** In 2011, the DRR Bill was updated to include a section on climate change adaptation to ensure an integrated policy framework (Meliqiniso Sibanda, Government of Zimbabwe, LDF 5, MADRID).

## Policies, Strategy & Planning

### National Development Strategies

- **Risk informed National Development Strategy (NDS) (2016-35) in Solomon Islands.** With support from UNDP PRRP, climate and disaster risk management are now the focus of Objective 4 of the five NDS objectives. The new objective promotes resilient and sustainable development by ensuring climate, disaster and environmental risk are central to all development decision making and supported by actions identified in the new five-year Medium Term Development Strategy (MTDP) (Jack Filiomea, Risk Resilient Development Director, Ministry of Development Planning and Aid Coordination).
- **Risk informing national strategies in Angola.** In 2015, UNDP assisted the Angolan government to develop the National Strategy for Prevention and DRR in alignment with both the National Development Plan 2013-2017 and the Sendai Framework for DRR 2015-2030. This national strategy orients actions to mainstream DRR and CCA into development planning by relevant sectors and local administrations and facilitates technical support from UNDP and other partners to help operationalize DRR and CCA mainstreaming in the country. Next year, UNDP plans to assist the government to develop the new National Development Plan in alignment with the Sendai Framework, the SDGs and the Paris Climate agreement. This will ensure that the National Development Plan (which is the most fundamental national strategic plan), orients DRR and CCA action for the upcoming programming period and adopts relevant result indicators related to DRR and CCA. The Planning Ministry will closely monitor progress against the indicators, while the Finance Ministry will allocate necessary resources (Keito Sugimoto, UNDP, Angola).
- **Linking adaptation plans to national policy frameworks in South Sudan.** The government is working to anchor the conclusions of the National Adaptation Programme of Action (NAPA) into the basis framework of the core approach

to national development activities. In efforts to mainstream adaptation into National Policy making, the government has included climate and vulnerability in sectoral and development policies that are complementary to the climate change and environmental policies embodied in the 25-year comprehensive National Strategy Outlines (UNISDR-GETI, 2016).

- **Substantive progress mainstreaming DRR and CCA into policies and plans in Ghana.** UNDP has worked closely with the National Development Planning Commission (NDPC), the Environmental Protection Agency (EPA) and the National Disaster Management Organization (NADMO) to mainstreaming CCA/DRR into: i) the Ghana Shared Growth Development Agenda; ii) the Ghana Plan of Action on DRR and CCA (linked to the National Climate Change Policy – which integrates DRR); and iii) district development plans. Experience suggests that high level political engagement, broad consultation and support to the Ministry of Finance (to enhance economic analysis and budgeting for DRR/CCA) are critical along with an approach to ensure coordinated implementation of policies and plans (Paulo Stella and Kansuk, UNDP Ghana).

### Sector Policies, Strategies and Plans

- **Risk informing the agriculture sector policy in Solomon Islands.** Risks are now incorporated into the Agriculture Sector Policy (2015-2019) and Corporate Plan following support from the in-house Risk Resilient Development (RRD) Director. Although financial resources to implement risk are not readily available, work on the accessing funds from the national government continues. “Provision of financial support is an important component to mainstreaming” (Sipuru Rove, Risk Resilient Development Director, Ministry of Agriculture).
- **Comprehensive Agriculture Policy Framework (2012-2032) in Zimbabwe.** Evolving policy has allowed for integration of emerging concepts such as combined DRR/CCA mainstreaming (Muhwati, Zimbabwe government, LDF 5).
- **Risk informing the Agriculture Sector Plan in Tonga.** As part of efforts to integrate Climate Change and Disaster Risks into the Agriculture Sector, PRRP in partnership with the World Bank developed the Tonga Agriculture Sector Plan (TASP). Research supporting the TASP, included consultation with approximately 600 farmers at the villages, and identified broken linkages between farmers group and the Ministry. TASP therefore addresses some of the organizational issues and provides strategic directions to minimize these broken linkages. Gaps in planning, budgeting, capacity, gender and social inclusion, monitor and evaluation were also identified through initial research. As a result, PRRP has been working to develop capacity in terms of funded post and provides technical assistances to the Ministry of Agriculture, Food, Forestry and Fisheries (MAFF) as one of a number of areas of risk governance strengthening. TASP is a good example of how Tonga used the perspective of development to integrate risk instead of developing a separate CCA/DRR plan for the Agricultural Sector. TASP implementation is also made possible, because its development is linked to risk governance strengthening (Sione Vaka, UNDP PRRP).

### Development Plans

- **Mandatory requirement for risk informing government plans in Mozambique.** All government plans are now required to include DRR and CCA measures otherwise the plans will not be approved and will not be allocated financial resources. This is seen as a key step towards building sustainable development programs and thus the resilience of communities to disasters. As the Director of Planning in Nampula Province noted: “in the past, projects were always planned and implemented

without considering the risk associated in these areas or how such projects can create more risk to the communities. Now, with the knowledge on DRR and CCA and tools, we are surely going to see changes in our annual planning processes where DRR and CCA actions will be integrated, we expect that disasters will have less impact on vulnerable communities with zero mortality in the coming years.” To support mainstreaming into national and provincial planning and programmes, a national capacity building programme has been highlighted as essential for changing mind-sets (rather than just increasing knowledge), helping to cascade the initiative to other colleagues. (Titus Kuuyuor, UNDP, Mozambique).

- **Risk informing national and district development plans in Tajikistan.** The UNDP Disaster Risk Management Programme (DRMP) has provided significant support to ensure the integration of DRM into the Tajikistan National Development Strategy (2016-2030) and the mid-term national Development Programme (2016-2020). This is linked to ongoing work to incorporate DRR into District Development Plans (DDPs) developed and implemented by District authorities. In collaboration with Government authorities and a range of other stakeholders, a risk management methodology was approved as part of the standard development planning process. To date, 36 district DDPs integrate DRR (Firdavs Faizulloev, UNDP, Tajikistan).

## Standards

- **Consideration of ISO 31000 principles for developing risk assessment methodologies in Indonesia.** Feedback as part of consultation for the second draft of the CCA-DRR convergence framework from government and non-governmental actors included adopting ISO 31000 principles for risk assessment methodologies. (ICRMP, 2014).
- **Incorporating standards into building regulations in Japan.** Japan has undergone a number of revisions of its building standard laws. These revisions were usually triggered by earthquake events that highlighted weaknesses of existing seismic and fire safety regulations. Japan’s Building Standard Act (enacted in 1950) and corresponding Enforcement Orders were revised in 1981 following a number of earthquakes in the 1960s. It has been confirmed that buildings constructed under the revised Building Standard Act (known as the “New Seismic Design Method”) have adequate earthquake resistance. However, many buildings in Japan (roughly one-third of the total) had inadequate earthquake resistance because they had been built before the standards were tightened in 1981. An Act on Promotion of Seismic Retrofitting of Buildings (enacted in 1995) and Urgent Countermeasures Guideline for Promoting the Earthquake-proofing of Houses and Buildings in 2005 were adopted, which set a national target for lifting the rate of earthquake-proofed houses from the current 75 percent to 90 percent within 10 years (UNDP, 2010).
- **Building codes save lives in Chile.** The country’s building codes have included seismic standards including earthquake-resistant building techniques, which have been shown in recent disasters to reduce earthquake damage. Since the 1960’s, seismic codes have been enforced for all new construction bases(?) (UNDP, 2010).
- **Standards training in Solomon Islands.** The Ministry of Infrastructure, together with Solomon Islands Built Environment Professional Association (SIBEPA) is developing a training course for certification of engineers to ensure adherence to more resilient construction techniques/standards. In the future, it is envisaged that standards training will be a contracting requirement of the Ministry of Infrastructure Development (MID) and therefore major engineering/construction organizations will need to undergo training and certification to apply and secure investment contracts.

# 3. Finance



## Resource mobilisation

What is this entry point?	
<b>Resource mobilization</b>	<ul style="list-style-type: none"> <li>• <b>Mobilization of sufficient resource for the management</b> of climate and disaster risks management (ideally as part of broader development interventions) is an essential success factor for mainstreaming.</li> <li>• <b>Resources for DRR/CCA are available from a range of sources</b> including government, civil society, private sector and development partners/donors.</li> </ul>
<b>National sources</b>	<ul style="list-style-type: none"> <li>• <b>These include:</b> i) Budget allocations; ii) national funds for preparedness or CCA; iii) social funds for improvement of health services &amp; education; iv) microfinance initiatives associated with national poverty alleviation (e.g., microcredit for alternative livelihoods or better houses); and v) social protection funds (e.g., micro-insurance, savings).</li> </ul>
<b>Private funding</b>	<ul style="list-style-type: none"> <li>• <b>These include:</b> i) Private finance such as foreign direct investment linked to risk, insurance markets and remittances, (e.g., Caribbean Catastrophe Risk Insurance Facility – CCRIF) or low insurance premiums for retrofitted houses; ii) donations; or iii) private-public sector partnerships for risk (<i>see Stakeholder Component</i>).</li> </ul>
<b>Foreign funding</b>	<ul style="list-style-type: none"> <li>• <b>These include:</b> i) overseas development assistance (ODA); ii) national development assistance (e.g. from local NGOs); iii) multilateral or bilateral mechanisms for DRR (e.g. Global Facility for DRR and Recovery – GFDRR); iv) climate change adaptation funds, for example the Adaptation Fund or the Global Environment Facility (channeled through the financial mechanisms of the UNFCCC) or funds outside the UNFCC process (e.g. World Bank's Climate Investment Funds); and v) appeals and contingency planning, for example Central Emergency Response Funds (CERF) or the Consolidated Appeals Process (CAP).</li> </ul>
What support is needed?	
<b>Identify sources</b>	<ul style="list-style-type: none"> <li>• <b>Governments will need to identify and mobilize</b> resources from a range of resources to help manage the changing risk landscape. It will be necessary in some cases to identify stand-alone financing for DRR/CCA but more importantly for risk management to be embedded into broader development planning and expenditures.</li> </ul>
<b>Unpredictability</b>	<ul style="list-style-type: none"> <li>• <b>The current resourcing architecture is unpredictable</b> and often activity/project focused. More reliable and sustainable sources need to be identified.</li> </ul>
<b>Implementation financing</b>	<ul style="list-style-type: none"> <li>• <b>Policy commitments are not always matched</b> by financing for implementation and it is important to mobilize national and international resources.</li> </ul>
<b>Strengthen national systems</b>	<ul style="list-style-type: none"> <li>• <b>International financing needs to fully complement national financing and should strengthen rather than bypass national systems.</b> International funds should also catalyze action and support engagement with the private sector where appropriate (ODI, 2014).</li> </ul>
Why is this important for mainstreaming?	
<b>Increasing costs</b>	<ul style="list-style-type: none"> <li>• <b>The number of disasters is increasing as is the cost of disasters</b> given that population and economic growth is exposing more people and assets to disasters.</li> </ul>
<b>Low pre-disaster spending</b>	<ul style="list-style-type: none"> <li>• <b>Pre-disaster spending is still low</b> and development assistance for DRR is a small percentage of total international aid finance. Spending on disasters is largely for preparedness or post disaster response and limited assistance is provided to understand underlying vulnerabilities leading to disasters. Development assistance for DRR is currently concentrated in a small number of countries. (ODI, 2015)</li> </ul>

Why is this important for mainstreaming?		
Separate spending	<ul style="list-style-type: none"> <li>• <b>The separation of funding mechanisms can serve to reinforce the divide between DRR and CCA</b> and therefore support is needed to mobilise funding to support integrated action on the ground, which increases the effective use of resources (i.e. cost-sharing) and avoids duplication.</li> </ul>	
Who should be involved?		
Ministry of Finance	<ul style="list-style-type: none"> <li>• <b>The Ministry of Finance</b> with support from core planning functions, will be the main actor alongside departments responsible for foreign investment/aid coordination and private sector investments.</li> </ul>	
Multiple stakeholders	<ul style="list-style-type: none"> <li>• <b>A number of finance channels require both public and private sector</b> actors and government will need to engage all of these.</li> </ul>	
How to support this entry point?		
Activity	Details	Expected results
Map & review funding sources	<p><b>Map existing and potential funding sources</b> including: i) <u>domestic funding</u> e.g. budgeted and actual expenditure and balance between recurrent and the capital investment budget (<i>see budgeting &amp; expenditure analysis entry point</i>); ii) <u>foreign funding including ODA</u>; iii) <u>climate or DRR funds</u>; and iv) <u>other sources of external finance</u> including private sector and other donations (e.g. public and NGSO). It may be necessary to consult with donors on future intentions and discuss regional and global funding opportunities with bilateral or multilateral agencies.</p>	<p><b>Clear understanding of available funds.</b></p> <p><b>Mobilization strategy for accessing funds.</b></p> <p><b>Capacity and institutional arrangements to monitor and mobilize funds.</b></p>
Build motivation	<p><b>The reasons for prioritizing DRR/CCA are not always clear</b> and it will be important to build the case for more proactive treatment both within finance/planning ministries and with other stakeholders. It will be important to communicate incentives for investing in DRR/CCA including through awareness raising (<i>see awareness raising entry point</i>) and it may be necessary to mobilize the support of national, regional and international bodies to help.</p>	
Resource mobilization strategy	<p><b>Develop a domestic/international resource mobilization strategy</b> to mobilize new and additional funding. It may be that for increased access to new funds (e.g., climate financing), countries will need to demonstrate capacity to effectively manage these funds from national to local levels including identifying an accredited National Implementing Entity (NIE) (that meets legal and fiduciary standards) to access funds.</p>	
Challenges		
Insufficient resources	<ul style="list-style-type: none"> <li>• <b>Finance through key sources may not be sufficient to meet needs</b> and often donors find it easier to fund individual projects, which does not support more holistic DRR/CCA outcomes.</li> </ul>	
Sub-national mobilization	<ul style="list-style-type: none"> <li>• <b>Sub-national resource mobilization for implementing DRR/CCA.</b> In many cases, decentralization has given rise to greater responsibility for sub-national government, but this is not accompanied by resources. Resources shortages are a common challenge to implementation at the local level, with insufficient transfers from high levels of government to carry out risk informed projects. Further, funding opportunities often do not always go beyond the Local Government Unit (LGU) boundaries or require inter-LGU alliances (Local Government officer, Philippines).</li> </ul>	
Suitability of sources	<ul style="list-style-type: none"> <li>• <b>Not all sources are suitable for all activities or available</b> in a specific country at a particular time. For example, private sector mechanisms are poorly developed in some countries.</li> </ul>	
Practitioner tips		
Financial incentives	<ul style="list-style-type: none"> <li>• <b>Financial incentives such as “match-funding”</b> for local governments to incorporate DRR/CCA measures could be offered by development partners/donors.</li> </ul>	
Toolkit		
Existing tools & gaps	<ul style="list-style-type: none"> <li>• <i>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</i></li> </ul>	
Checklist	<ul style="list-style-type: none"> <li>• <b>Checklist for resource mobilization</b></li> </ul>	
Case studies		
Bangladesh	<ul style="list-style-type: none"> <li>• Climate Change Investment Fund.</li> </ul>	
Africa	<ul style="list-style-type: none"> <li>• Building capacities to access funding.</li> </ul>	
Burkina Faso	<ul style="list-style-type: none"> <li>• National implementing entity support programme.</li> </ul>	
Vanuatu	<ul style="list-style-type: none"> <li>• Groundwork for prioritising climate finance.</li> </ul>	

# Budgeting & expenditure analysis

What is this entry point?	
Budgeting	<ul style="list-style-type: none"> <li>• <b>Government resource allocations for risk is decided by the budget</b>, which is a complex political and technical exercise involving: i) <i>budget planning and formulation</i> where Ministry of Finance sends out a budget call, circulars and guidelines with budget ceiling, criteria and priorities; Line Agencies submit expenditure plans (i.e. sector budgets/strategies) with prioritized and costed expenditure programs); ii) <i>budget execution and implementation</i>; and iii) <i>budget monitoring and accountability</i>.</li> <li>• <b>Budgets are generally separated into:</b> i) <u>recurrent</u> or routine operation and maintenance; and ii) <u>one-off investment</u>, capital or projects (e.g. development budget). These are often managed by separate ministries (e.g. planning often approves and monitors the capital investment budget, whereas finance ministries are more usually responsible for recurrent budgets).</li> </ul>
Expenditure analysis	<ul style="list-style-type: none"> <li>• <b>Expenditure analysis estimates how much governments are spending</b> on DRR/CCA related activities.</li> <li>• <b>Expenditure reviews focus on the extent of existing budgets and expenditures, and effectiveness and efficiency</b> in relation to overall goals of resilience.</li> <li>• <b>Ideally <u>integrated analysis</u> is carried out for CCA and DRM expenditure using a joint assessment and expenditure tracking tool.</b> However, more usually these are carried out separately e.g. climate public expenditure reviews (CPEIRs) and Disaster Risk Management Public Expenditure and Institutional Reviews (DRM-PEIR).</li> <li>• <b>Reviews are not usually limited to expenditure and are intended to assist analysis and development of:</b> i) <u>roles and mandates of institutions</u> involved in DRM/DRR/CCA actions; ii) formulation and coherence of risk <u>strategies/policies</u>; iii) interface between domestic resources and international finance for DRR/CCA; iv) processes for <u>resource allocation</u> for DRR/CCA actions; v) calculations identifying the <u>sums</u> expended on these actions; and vi) the processes of scrutiny and M&amp;E process for determining the effectiveness of funds for DRR/CCA.</li> </ul>
How can it be supported?	
Initiate analysis	<ul style="list-style-type: none"> <li>• <b>Analysis of a comprehensive suite of risks</b> can raise awareness of their importance, demonstrate relevance to achievement of national policy objectives, shape national and donor debates concerning policy and funding priorities, and begin a dialogue aimed at increasing levels of investment for risk informed development.</li> <li>• <b>It is important to promote regular review of expenditure</b> or institutionalize reviews within the public financial management process to provide regular data to track expenditure. This is because DRR/CCA expenditure is rarely explicitly identified in budgets except where expenditure is specifically identified for the recurrent operation of a disaster management or climate change agency.</li> </ul>
Increase risk allocation	<ul style="list-style-type: none"> <li>• <b>Increase DRR/CCA allocation based on expenditure analysis and policy-focused evidence.</b> It is important for dedicated commitment and finance for DRR/CCA (especially when integrated into development investments) to sustain progress. This means increasing the link between planning and budgeting processes.</li> </ul>
Promote integration	<ul style="list-style-type: none"> <li>• <b>Support to review <i>both</i> CCA and DRM budget and expenditure</b> to provide a guide to trends in expenditures, identifying how funds are being allocated among sectors, and the results (rate of outturn) against amount set aside (appropriation). Further, analysis that incorporates <u>gender and social expenditures</u> will be important given the direct links between inclusion and risk.</li> </ul>
Why is this important for mainstreaming?	
Risk allocations	<ul style="list-style-type: none"> <li>• <b>Resource allocation for risk management can promote more efficient and effective use of resources.</b></li> <li>• <b>Proactive risk management is supported by countries setting aside or allocating a percentage of development budget</b> to cover the costs of risk management.</li> </ul>
Risk financing framework	<ul style="list-style-type: none"> <li>• <b>It is important to generate information to track expenditures and maintain financial records</b> in the system of national accounts to assist in identifying areas where ongoing policies can further “mainstream” these considerations and to build a robust climate/disaster financing framework, which can help access global climate and DRR funds</li> </ul>
Increases accountability	<ul style="list-style-type: none"> <li>• <b>Reviews provide an overview of total sector spending with clear identification of DRR/CCA</b> and assist in identifying areas where ongoing policies can further “mainstream” these considerations.</li> <li>• <b>Reviews enable decisions to be taken with a clearer understanding of the costs and potential benefits</b> that derive from risk related investments and provide opportunity to strengthen budget processes for risk and identify specific entry points for reform.</li> <li>• <b>Budget monitoring holds government accountable</b> for delivering on commitments and priorities.</li> </ul>
Who should be involved?	
Finance & planning	<ul style="list-style-type: none"> <li>• <b>Capacity building of key focal points from Ministry of Finance/Treasury/Ministry of Planning is needed</b> to support ongoing inclusion of risk and monitoring of risk allocations to sectors. It is also critical that key <u>political and economic decision makers</u> are engaged in the analysis process and that analytical findings are launched at a high-profile advocacy workshop or meeting. Line ministries will also need to develop risk-responsive medium-term expenditure frameworks for submission to central agencies for approval and integration into medium-term fiscal framework.</li> </ul>
Technical practitioners	<ul style="list-style-type: none"> <li>• <b>Government practitioners from technical Climate Change and DRM ministries</b> as well as technical advisors.</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Integrated/joint analysis	<ul style="list-style-type: none"> <li>i <b>Identify if data are available to quantify public expenditure</b> and quantify expected economic and financial consequences of a given disaster event.</li> <li>ii <b>Identify if there is a breakdown of public expenditure by:</b> type of hazard; and type of disaster loss and damage paid (e.g. damage to infrastructure, business interruption losses); balance between pre (DRR) and post-disaster expenditure.</li> <li>iii <b>Assess spending against stated policy priorities</b>, assess funding allocations and expenditures and determine resulting benefits for target groups</li> <li>iv <b>Examine government efficiency and effectiveness in tracking and reporting</b> on issue-specific expenditure (i.e. budget monitoring and accountability) and effect and value added of expenditure towards achieving policy objectives on risk management.</li> </ul>	<p><b>Increased capacity of finance focal points to review planning &amp; budgeting expenditure for risk on a regular basis.</b></p> <p><b>Climate and disaster risk-responsive fiscal framework driving investment in risk informed development.</b></p>
Workshop	<b>High level workshop with key budget decision makers to present and discuss findings</b> , to advocate for the inclusion of risk in budget allocations and to discuss updates to fiscal framework.	
Risk responsive fiscal framework	<b>Support development of a climate and disaster-responsive medium-term fiscal framework</b> as part of the development of the medium-term budget strategy, which should use fiscal policies to generate motivating forces for investing in low emissions and climate/disaster resilience.	
Challenges		
Data availability	<ul style="list-style-type: none"> <li>• <b>Availability of detailed budget data.</b> Existing public financial management (PFM) systems and data availability have a strong influence on how analysis can be done.</li> </ul>	
Competing priorities	<ul style="list-style-type: none"> <li>• <b>Competing priorities for scarce budgetary and investment resources.</b> Sector ministries and finance ministries struggle to allocate resources towards addressing multiple national priorities.</li> </ul>	
Actual expenditure	<ul style="list-style-type: none"> <li>• <b>Actual expenditure is below planned expenditure</b> as low physical and financial delivery.</li> </ul>	
Timing	<ul style="list-style-type: none"> <li>• <b>Timing of budget delivered to line ministries</b> does not always support proactive action (i.e. pre cyclone season retrofitting).</li> </ul>	
Lack of visibility	<ul style="list-style-type: none"> <li>• <b>Lack of visibility of DRR/CCA expenditure.</b> The more risk reduction and adaptation are integrated into development and mainstreaming objectives, the less visible; they become part of development practice and are concealed within sector and local budgets. Further, some interventions aimed at vulnerable and low income areas may be critical for building resilience, but may not be included in analysis.</li> </ul>	
Practitioner tips		
Capacity	<ul style="list-style-type: none"> <li>• <b>Capacity development is essential</b> to ensure government officials can knowledgeably review, assess and prioritize risk informed project proposals. Capacity constraints are apparent when sectors have to spend funds on inputs in areas outside traditional scope (see <a href="#">capacity development entry point</a>)</li> </ul>	
Integrated analysis	<ul style="list-style-type: none"> <li>• <b>Ideally carry out “joint” assessments for both climate and disaster risk management expenditures</b> and institutional structures but these can be at a national, subnational or sector level.</li> </ul>	
Performance based	<ul style="list-style-type: none"> <li>• <b>Performance-based budgeting</b> including performance-based indicators of an intervention in relation to activities, budgets, output, outcome and impacts (<i>Sayoko, Indonesia</i>)</li> </ul>	
Ownership	<ul style="list-style-type: none"> <li>• <b>Government ownership is essential for</b> both access to data and to increase likelihood of results being accepted and acted upon.</li> </ul>	
Toolkit		
Existing tools & gaps	<ul style="list-style-type: none"> <li>• <i>Checklist: Mainstreaming into the budget process (UNEP/UNDP)</i></li> <li>• <i>[Practitioners to identify existing tools and gaps in provision]</i></li> </ul>	
Checklist	<ul style="list-style-type: none"> <li>• <b>Checklists for joint DRR/CCA expenditure analysis</b></li> <li>• <b>Checklist for budget allocations for risk (to be prepared)</b></li> </ul>	
Case studies		
Tonga	<ul style="list-style-type: none"> <li>• National Climate Finance Risk Governance Assessment (CFRGA) for both climate change and disaster risk.</li> </ul>	
Cambodia	<ul style="list-style-type: none"> <li>• CPEIR leads to new focus on climate change in the budget system.</li> </ul>	
Indonesia	<ul style="list-style-type: none"> <li>• Budget tagging for climate change.</li> </ul>	
India	<ul style="list-style-type: none"> <li>• Government Order to use 10 percent of Central Sponsored Schemes (CSSs) as Flexi-Funds for DRR.</li> </ul>	
Nepal	<ul style="list-style-type: none"> <li>• Subnational allocations.</li> </ul>	

# Risk informing investments

What is meant by this entry point?	
<b>Risk informing investment</b>	<ul style="list-style-type: none"> <li>• <b>Making sure that EXISTING development investments or public assets are not creating risks is at the heart of mainstreaming.</b> Investment that is resilient to climate and disaster risk sets a pathway for sustainable development. However, cost-benefit analysis can show that the long-term benefit of risk-informing these investments are very high for hazard prone areas compared to the cost of development setbacks and reconstruction. [Note new investments are discussed under “Projects &amp; Programmes”]</li> <li>• <b>Ensuring cross-sectoral planning processes</b> (e.g. spatial planning, land zoning), which create the investment environment take into account climate and disaster risk.</li> <li>• <b>Ensuring that ongoing government investments for service delivery</b> (e.g., utilities) are not increasing risks.</li> </ul>
What support is needed?	
<b>Assessment</b>	<ul style="list-style-type: none"> <li>• <b>Existing investments will need to be screened/appraised for risk</b> to identify opportunities for “risk informing,” for example: retrofitting hospitals, houses or schools; adding resilience measures to infrastructure (e.g. road drainage); protecting settlements (e.g. stabilizing slopes); and in extreme circumstances re-locating development away from extremely high risk areas.</li> </ul>
<b>Update procedures &amp; tools</b>	<ul style="list-style-type: none"> <li>• <b>Screening and appraising existing investments for risk</b> will require that existing monitoring and review processes incorporate climate and disaster risks. This requires significant capacity building to ensure that those involved are able to identify and analyze risk and possible risk management measures. Cost benefit analysis may be required to identify if significant risk management activities (e.g. relocation) are needed.</li> </ul>
<b>Investment in enabling activities</b>	<ul style="list-style-type: none"> <li>• <b>Additional investment in enabling activities such as training and certification</b> for engineers, masons, and buildings to retrofit buildings might be required (see <i>capacity development</i>). Further technical capacity to check and monitor the design and quality of implementation will be needed (see <i>M&amp;E and compliance</i>)</li> </ul>
<b>Maintenance investment</b>	<ul style="list-style-type: none"> <li>• <b>Proper investment in maintenance</b> (regularly and additional as part of contingency measures in high risk season) is just as important to maintain resilience and cost-effectiveness. Establishing funding and management structures for operation and maintenance is very essential to ensure that investments/projects are sustainable after they are handed to communities or local governments. Maintenance budgets of sectoral development programs can be used to risk-inform existing priority structures.</li> </ul>
Why is this important for mainstreaming?	
<b>Risk informing critical sector development</b>	<ul style="list-style-type: none"> <li>• <b>Critical sectors are foremost service delivery sectors and it is increasingly important that natural hazards and climate change do not interrupt service provision.</b> For example, <u>health</u> (e.g. structural and non-structural safety of hospitals, and health facilities, equipment and emergency stocks, as well as the health services and health insurance); <u>education</u> (e.g. structural and non-structural safety of school buildings and safety procures); <u>infrastructure</u> (roads and bridges, public transport systems); <u>water and sanitation</u> (e.g. location and stability of pumps and pipes, dams, water management structures and irrigation systems in drought areas); <u>energy</u> (e.g. alternative energy sources, electricity lines, safety of hydro power); as well as <u>public works</u> such as administrative buildings and community structures and housing.</li> </ul>
<b>Risk informing inter-sectoral development</b>	<ul style="list-style-type: none"> <li>• <b>Urban planning is an inter-sectoral field in itself where risk management is of utmost importance</b> (e.g. housing, flood plain management, zonation, drainage, emergency services). For example, risk informing investments in the housing sector can be an important way to reduce risk exposure and vulnerability. People’s homes often pose the greatest risk to their lives and assets. Especially the poor and marginalized live in weak housing structures often located in high risk areas (e.g. slums, illegal settlement in high risk areas). Investments could focus on retrofitting people’s homes, assets and livelihoods.</li> </ul>
Who should be involved?	
<b>Service delivery sectors</b>	<ul style="list-style-type: none"> <li>• <b>This entry point is a priority for sectors that are essential for service delivery</b> e.g. ministries responsible for housing, infrastructure, transport at all levels.</li> </ul>
<b>Inter-sectoral planners</b>	<ul style="list-style-type: none"> <li>• <b>This entry point is important for cross-sectoral planners</b> e.g. urban planners, land use planners at all levels.</li> </ul>
<b>Technical specialists</b>	<ul style="list-style-type: none"> <li>• <b>CCA and DRR experts from climate change and disaster management units</b> can provide technical advice on appropriate risk management measures e.g. retrofitting existing investments</li> </ul>
<b>Private sector</b>	<ul style="list-style-type: none"> <li>• <b>Risk informing investments in the key economic sectors requires close cooperation with the private sector.</b> Measures to ensure that private sector investments are risk informed and closely linked to the <u>policy component</u> (regulations) as well as the component of compliance and enforcement (see knowledge component). Governments can also provide additional incentives and form public-private partnerships to support delivery of risk informed services (see <u>stakeholder component</u>).</li> </ul>

How can it be supported?		
Activity	Details	Expected results
<b>Assessment</b>	<b>Assessment and analysis of priority investments</b> to identify potential risks from climate change and disaster hazards and to identify potential opportunities for introducing risk management (e.g. retrofitting) and ensuring maintenance. Annual local development planners can be trained to identify priority infrastructure investment and maintenance requirements in their locality. Post-disaster reconstruction programs also offer opportunity to risk inform investment. It will be important to engage the private sector where priority investments are privately owned.	<b>Existing priority investments</b> are risk informed ensuring business and service continuity.  <b>Capacities are developed</b> to risk inform and monitor investments.
<b>Capacity development &amp; coordination</b>	<b>Implementation of risk management measures and ongoing monitoring</b> of measures to ensure they meet key standards requires capacity development (see <a href="#">organization component</a> ) and coordination with research institutes to ensure that the most appropriate technologies and innovations are identified.	
Challenges		
<b>Capacity</b>	<ul style="list-style-type: none"> <li>• <b>Sufficient capacity</b> for a wide range of stakeholders is needed to support this entry point.</li> </ul>	
Practitioner tips		
<b>Long term</b>	<ul style="list-style-type: none"> <li>• Mainstreaming risks and shocks into private sector investment has very different context and realities. Finding an entry point is the key and very much dependent on context and financial incentives at an early stage (Alam, Bangladesh)</li> </ul>	
Toolkit		
<b>Existing &amp; gaps</b>	<ul style="list-style-type: none"> <li>• <i>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</i></li> </ul>	
<b>Checklist</b>	<ul style="list-style-type: none"> <li>• <b>Checklist for Risk Informed Development</b> (to be prepared)</li> </ul>	
Case studies		
<b>Fiji</b>	<ul style="list-style-type: none"> <li>• Housing assessment to support town planning.</li> </ul>	
<b>Bhutan</b>	<ul style="list-style-type: none"> <li>• Protecting industrial and housing investments.</li> </ul>	
<b>Global</b>	<ul style="list-style-type: none"> <li>• Restorative eco-based practices to protect investments and communities.</li> </ul>	

# Risk financing & transfers

What is meant by this entry point?	
<b>Risk finance</b>	<ul style="list-style-type: none"> <li>• <b>Risk finance (or financial protection) complements disaster risk reduction and adaptation</b> by securing adequate financial resources to cover residual risks (which is either not feasible or not cost effective to mitigate) and by creating the right financial incentives to invest in risk reduction and prevention.</li> <li>• <b>Risk financing and transfer will commonly build on a combination of options including national disaster risk financing</b> to increase the capacity of national and subnational governments to provide immediate emergency funding and long-term funding for reconstruction and development.</li> </ul>
<b>Transfers</b>	<ul style="list-style-type: none"> <li>• <b>Aim to increase the resilience of vulnerable stakeholders against the financial impact</b> of disasters. It is the process of formally or informally shifting the financial consequences of particular risks from one party to another. For example, a household, community, enterprise or state authority will obtain resources from another party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party. Insurance is a well-known form of risk transfer, where coverage of a risk is obtained from an insurer in exchange for ongoing premiums paid to the insurer.</li> <li>• <b>Risk transfer can occur informally within family and community networks as well as formally</b> where governments, insurers, multi-lateral banks and other large risk-bearing entities establish mechanisms to help cope with losses in major events. Such mechanisms include insurance and re-insurance contracts, catastrophe bonds, contingent credit facilities and reserve funds, where the costs are covered by premiums, investor contributions, interest rates and past savings, respectively (UNISDR, 2009). For example, <a href="#">property catastrophe risk insurance</a> to protect homeowners and SMEs against loss from property damage; or <a href="#">agricultural insurance to protect farmers</a>, herders and fishermen from loss arising from damage to their productive assets.</li> </ul>
<b>Disaster-linked social protection</b>	<ul style="list-style-type: none"> <li>• <b>Risk management and transfers include disaster-linked social protection</b> to help governments strengthen resilience of the poorest and most vulnerable by focusing on poverty reduction (and introducing public measures to provide income security) and addressing broader root causes of vulnerability (beyond shock or disaster related vulnerability).</li> <li>• <b>Social protection describes all initiatives that transfer income or assets to the poor</b>, protect the vulnerable against livelihood risks, and enhance the social status and rights of the marginalised e.g. cash or asset transfers, or employment guarantee schemes (IDS 2012).</li> </ul>
What support is needed?	
<b>Increase access</b>	<ul style="list-style-type: none"> <li>• <b>Disaster risk funding and transfers need to be mainstreamed into broader public financial management, social protection and financial sector development.</b> It will be important to close the public sector financing gap and promote access to disaster risk financing and transfer tools for stakeholders expected to face a financing gap and unlikely to absorb (in full or in part) the financial consequences of disasters</li> </ul>
Why is this important for mainstreaming?	
<b>Financial impact</b>	<ul style="list-style-type: none"> <li>• <b>The government's central role in natural disaster emergency relief, recovery and reconstruction</b> is associated with a large financial burden and therefore strengthening this entry point as part of mainstreaming will decrease costs in the long term.</li> </ul>
<b>Protect finances</b>	<ul style="list-style-type: none"> <li>• <b>Promotes comprehensive financial protection strategies</b> to ensure that governments, homeowners, SMEs, agricultural producers and the most vulnerable populations can meet post-disaster funding needs as they arrive. Despite complexities and uncertainties in supply and demand for risk transfers, risk financing mechanisms have been shown to demonstrate significant potential for absorbing the financial burden of disasters (Lal, 2012).</li> </ul>
Who should be involved?	
<b>Ministry of Finance</b>	<ul style="list-style-type: none"> <li>• <b>Financial protection requires strong leadership by a country's ministry of finance.</b> Strong stewardship by the ministry of finance in coordination with other public agencies is therefore crucial.</li> </ul>
<b>Public welfare agencies</b>	<ul style="list-style-type: none"> <li>• <b>Need to increase critical link and forge partnerships</b> between ministries of finance and officials working in public welfare agencies to financially and institutionally adapt and expand safety nets before, during and after disasters.</li> </ul>
<b>Private sector</b>	<ul style="list-style-type: none"> <li>• <b>The private sector is an essential partner</b> and can bring capital, technical expertise and innovative financial solutions to better protect the government and society. For example, promoting the use of private insurance in both the public and private sector.</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Identify available tools	Identify the risk financing and transfer tools currently available in the country and their availability to different stakeholders (e.g. residential property owners, corporations, public sector entities) and the costs/benefits of the different tools available (and compared to the cost of DRR/CCA measures).	<p><b>Vulnerable stakeholders have increased access to risk financing and transfers to protect assets and livelihoods from disaster and climate risk.</b></p> <p><b>Increased involvement of the private sector.</b></p>
Gap analysis	Identify main financing gaps in funding DRR/CCA (before and after disasters) including residual risk; and review institutional, technical and operational areas of focus for strengthening public financial management of disasters.	
Develop financial risk analysis	Develop a financial strategy for financial protection within broader fiscal risk management. This requires: a) financial risk information to clarify financial costs and benefits of DRR/CCA, retention and transfer; b) exploring potential for greater risk transfer to the private sector; and c) identification of private strategies and tools for more responsible management of the remaining costs. Financial risk analytics empowers governments to take more informed decisions by bridging the gap between raw risk data and information that is useful to policy makers and identify the most appropriate financial instrument for risk transfer (GFDRR, 2014) (see <a href="#">risk assessment entry point</a> ).	
Challenges		
Changing risk landscape	<ul style="list-style-type: none"> <li>Private sector will continue to play a role (e.g., insurance) in context of a changing environment given uncertainty and financial constraints (Lal, 2012).</li> </ul>	
Long-term agenda	<ul style="list-style-type: none"> <li>Risk financing is a long-term agenda that requires political will, technical expertise and time. While simple measures can quickly support improved financial protection, more complex financial solutions and institutional change require technical expertise and political will.</li> </ul>	
Comprehensive strategy	<ul style="list-style-type: none"> <li>Stand-alone financial instruments are not silver bullets and must be integrated into a comprehensive disaster risk management strategy requiring political and institutional change to ensure that financial protection complements risk prevention, reduction and adaptation.</li> </ul>	
Practitioner tips		
Risk units	<ul style="list-style-type: none"> <li>Some countries have established fiscal risk management divisions within the ministry of finance tasked with identification, quantification, disclosure and management of risks e.g. Colombia, Indonesia, Panama, Peru (GFDRR, 2014).</li> </ul>	
Toolkit		
Existing tools & gaps	<ul style="list-style-type: none"> <li>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</li> </ul>	
Checklist	<ul style="list-style-type: none"> <li>Checklist for Risk Financing and Transfer (to be prepared)</li> </ul>	
Case studies		
Armenia	<ul style="list-style-type: none"> <li>Road Map for implementation of crop insurance scheme.</li> </ul>	
Ethiopia	<ul style="list-style-type: none"> <li>Productive Safety Net Program to increase food security.</li> </ul>	
Mongolia	<ul style="list-style-type: none"> <li>Affordable index-based livestock insurance for herders.</li> </ul>	
Colombia	<ul style="list-style-type: none"> <li>National disaster risk financing and insurance strategy.</li> </ul>	

# Case studies: Finance

## Resource Mobilisation

- **Building capacities in Africa to access funding.** To help African officials understand and mobilize the range of funding options available and prepare them to access adaptation funds, the African Adaptation Programme (AAP) held two regional and six national workshops on climate finance. In total 17 countries participated. The first regional workshop in Ghana on “Leveraging Climate Finance for Resilient Development” was attended by more than 30 representatives from 11 countries and the second in Mauritius, was attended by representatives from 12 countries. Key topics included putting in place a financial coordination mechanism, private sector participation and how countries can access international finance (AAP, 2013).
- **National Implementing Entity (NIE) Support Programme in Burkina Faso.** In order to strengthen national capacity to mobilize adaptation funds, the AAP initiated the program to identify a government entity that could be formally accredited by the UN Adaptation Fund as an NIE. The NIE Support Programme builds national capacities not only to access climate finance, but to effectively manage, program, implement and monitor these funds (AAP, 2013).
- **Groundwork for prioritizing climate financing in Vanuatu.** As an increasing priority, the government in partnership with the Pacific Island Forum (PIFS), PRRP and other regional partners undertook an assessment of its institutional capacity for climate change and DRM in 2014. This will form the basis for identifying pathways for better access and management of climate financing; and the foundation for development of the National Implementing Entity (NIE) Roadmap (which was developed at the end of 2014) for eligibility for direct access to international CCA funds. A Climate Finance Working Group (with representation from the PMO, Finance, Ministry of Climate Change and NAB Secretariat) has recently been established in 2016 to monitor and advise on actions as per recommendations from the NIE roadmap (Malcolm Dalesa, UNDP, PRRP).
- **A Climate Change Trust Fund in Bangladesh.** In early 2009, the government approved a policy for the trust fund and the Climate Change Trust Fund Act was passed in 2010. Of the total amount, 66 percent can be spent on projects related to climate change and the balance on emergencies. Bangladesh allocated US\$100 million for 2010-2011 to implement the Bangladesh Climate Change Strategy Action Plan (BCCSAP). This is complemented by a World Bank administered fund – the Bangladesh Climate Change Resilience Fund (IIED, 2013).

## Budgeting & Expenditure Analysis

### Expenditure analysis

- **National Climate Finance Risk Governance Assessment (CFRGA) for both climate change and disaster risk in Tonga.** The Government of Tonga, in partnership with PRRP, undertook a National Climate Finance Risk Governance Assessment (CFRGA), which is an assessment of institutional capacity for climate change and disaster risk management. The results of the assessment outlined improvements in planning, budgeting, monitoring and evaluation

systems that Tonga will need to make in order to be able to access climate financing. A key finding was that technical expertise for climate change and disaster risk reduction was in short supply in both the private and public sectors. The implementation of the recommendations from the assessment will be a priority in 2016 for the Ministry of Finance and National Planning (Sione Vaka, UNDP PRRP).

- **A Climate Public Expenditure and Institutional Review (CPEIR) in Cambodia.** A CPEIR was carried out in 2012 and identified a range of climate expenditures which were shown to have grown from 14 percent in 2009 to nearly 17 percent in 2011, with the bulk of public spending in ministries responsible for transport, water, health, agriculture, forest and fisheries. A sub-group has been established (including the Climate Change Department, the Ministry of Planning, and the Council for the Development of Cambodia) to develop a Climate Change Financing Framework. It is coordinated by the Ministry of Economy and Finance (IIED, 2013).
- **Ministerial Decree on Budget Tagging for Climate Change in Indonesia.** In July 2014, the Ministry of Finance approved a decree (No. 136/2014) on Guidelines for Annual Planning and Budgeting of Line Ministries. The decree makes the Budget tagging for climate change mitigation systems mandatory for seven line ministries. An on-line application and thematic budget coding system for tagging mitigation, adaptation and biodiversity activities and expenditures has been developed by the Directorate General of Budget and two trainings sessions have been conducted on its use (UNEP/UNDP, 2015).
- **Agricultural and education sector analysis in Solomon Islands.** Risk governance assessments, which included a review of national and local institutional and financial arrangements, were undertaken separately in both the agriculture and education sectors. This allowed identification of issues to support sector mainstreaming including the need for additional in-house capacity to lead mainstreaming and increase budget allocations for DRR, CCA and environmental management.

#### **Budget allocation**

- **Funds for risk reduction in India.** The Government of India has released a Government Order to use 10 percent of Central Sponsored Schemes (CSSs) as Flexi-Funds for DRR, which gives scope to mainstream DRR into development planning (Biyani, India). However, the initiative is not yet fully implemented, due to a lack of specific directives and guidelines for each CSS. Hence, the Government of India may need to develop intervention specific directives for the State Governments and follow up actions for their implementations (Das, Revenue Department, India).
- **Subnational allocations in Nepal.** The National Planning Commission (NPC) and Ministry of Federal Affairs and Local Department (MoFALD) have instructed all sub-national agencies (e.g. sectoral agencies, village development committees) to allocate at least five percent of the total budget to DRR and CCA as part of regular project planning processes to DRR and CCA. (ICRMP, 2015).

## Risk Informing Investments

- **Housing assessments to support risk informed Town Planning in Fiji.** In 2011, a vulnerability assessment was undertaken by UN-Habitat to scope exposure, sensitivity, adaptive capacity, vulnerability of people, places and sectors in Lami Town, which regularly experiences flooding and erosion along coastal areas due to storms surges, sea level rise and during excess rainfall when rivers overflow or when water gathers in low-lying areas. A Cost Benefit Analysis for ecosystem-based adaptation and hard engineering options identified a number of effective methods to address climate and disaster risk impacts. It was identified that a combined approach, using some ecosystem-based adaptation options to protect higher value priority infrastructure, was important (UN-Habitat & UNEP in SPC, 2015).
- **Protecting industrial and housing investments in Bhutan.** A UNDP-GEF project in Bhutan is increasing capacity to respond to climate-induced multiple hazards to reduce potential losses to lives, livelihoods, assets and national economic infrastructure. Key objectives including landslide management, flood prevention, and flood protection of downstream industrial and agriculture areas. For example, it is supporting the protection of the Pasakha Industrial area from flood events through riverbank protection, river training and development of flood buffer zones. Similarly, it is stabilizing slopes to reduce climate-induced landslides in Phuntsholing Township. These activities are essential for protecting existing investments from disaster and climate risks (UNDP-GEF, 2016).
- **Restorative eco-based practices promoted by EcoVillage.** Experience is showing that reducing or eliminating risks to development investments and communities, can successfully draw upon approaches that restore the natural environment. For example, re-establishing natural buffer zones in high-risk areas or developing water retention landscapes in areas prone to flooding. By drawing upon the knowledge of local communities and CBOs, civil society can be engaged in the restorative process (see <http://ecovillage.org/node/5998>) (Rob Wheeler, UNDP representative).

## Risk Financing & Transfers

- **A Road Map for implementation of crop insurance schemes in Armenia.** An assessment of the need for agricultural insurance was carried out and a Road Map for implementation of the most applicable crop insurance scheme proposed. A pilot project, which included different options of weather-based insurance schemes, was initiated and the proposed agricultural climate-index insurance scheme discussed with representatives from ministries, national and international organizations during a workshop at the end of 2014 (ICRMP, 2015).
- **Productive Safety Net Program (PSNP) to increase food security in Ethiopia.** Established in 2005, PSNP is aimed at enabling the rural poor facing chronic food insecurity to resist shocks, create assets and become food self-sufficient. PSNP provides multi-annual predictable transfers (as food, cash or a combination of both) to help chronically food insecure people survive food deficit periods and avoid depleting their productive assets while attempting to meet their basic food requirements. The combination of cash and food transfers is based on season and need, with food given primarily in the lean

season between June and August. Vulnerable households receive six months of assistance annually to protect them from acute food insecurity. Additionally, WFP extends food and cash assistance for an additional three months under its Risk Financing Mechanism during periods when food insecure people are affected by unpredicted shocks (WFP, 2012).

- **Affordable index-based livestock insurance for herders in Mongolia.** In the face of significant impacts from droughts and severe winters on total livestock (GDP and economic growth), the government set up a public-private partnership with domestic insurance companies to provide affordable index-based livestock insurance to herders. In 2014, the program covered approximately 16 percent of the herders nationwide (19,500 of 120,000 herders) and had successfully been scaled up from three pilot provinces to the entire country, reducing the impact of livestock mortality on herder's livelihoods and providing the government with a way to transfer part of its fiscal exposure to international reinsurance markets (GFDRR, 2014).
- **A national disaster risk financing and insurance strategy in Colombia.** Colombia was one of the first countries to develop a national disaster risk financing and insurance strategy, which integrated disaster-related contingent liabilities into existing disaster risk and fiscal risk management agendas. Colombia's strategy focuses on improving financial risk information and quantification, improving budget management of disaster risk through multiple financial instruments (e.g. disaster risk management fund, a contingent line of credit from the World Bank, and possibly a market-based earthquake risk transfer solution), and scaling up the insurance of public assets (GFDRR, 2014).

# 4. Organisation



## Capacity development

What is meant by this entry point?	
Capacity development	<ul style="list-style-type: none"> <li>Capacity development for DRR/CCA of <b>existing</b> government staff or additional <b>new</b> risk capacity in core development units is essential (at all levels) to support mainstreaming from within the development agenda.</li> </ul>
What is needed?	
Permanent capacity for risk	<ul style="list-style-type: none"> <li><b>Systematic, ongoing and sustainable capacity development for mainstreaming</b> is needed, which moves beyond “ad hoc” training to long term approaches that ensure in-house capacity is available to identify and support mainstreaming opportunities. Evidence from a review of 17 countries identified that formal, theory-based training courses were less successful in strengthening capacity than practical exercises (UNDP, 2015).</li> </ul>
Focal points	<ul style="list-style-type: none"> <li><b>Focal points need to be identified in each ministry</b> and do not necessarily need to be DRR/CCA experts (although this helps), but have sufficient understanding to feel comfortable advocating for DRR/CCA within their institutions and to recognise where further technical input is needed.</li> </ul>
Technical capacity	<ul style="list-style-type: none"> <li><b>Technical staff (e.g. from NDMOs, climate change divisions)</b> need to be capable and authorised to support capacity development of sector policy makers and planners to help them mainstream DRR and CCA.</li> </ul>
Education sector support	<ul style="list-style-type: none"> <li><b>Key to capacity development is the continued engagement between government and academic institutions</b>, linking this sub-component closely to the education and research entry point (see <i>Knowledge Component</i>).</li> </ul>
Why is this important for mainstreaming?	
Risk informed decisions	<ul style="list-style-type: none"> <li><b>Decision makers need the understanding to make appropriate climate and disaster risks informed decisions</b> to ensure <u>risk is integral</u> to development policy and practice.</li> </ul>
In-house capacity	<ul style="list-style-type: none"> <li><b>People and institutions need the functional capacities</b> (i.e. planning, management, coordination and reporting skills) to carry out responsibilities associated with mainstreaming risk as well as the technical capacity.</li> </ul>
Strengthen progress	<ul style="list-style-type: none"> <li><b>Ongoing capacity building</b> will be important to ensure a sustained cadre of competent people able to continually deepen and improve DRR and CCA progress.</li> </ul>
Support compliance and enforcement	<ul style="list-style-type: none"> <li><b>Implementation requires that professionals are sufficiently qualified to ensure compliance</b> of risk informed processes (e.g. regulations on land use planning or building codes) and training/certification of professionals like local engineers, architects, masons and builders, to correctly apply regulations will be necessary. Similarly, officers will need to have the capacity to ensure compliance with key regulations.</li> </ul>

Who should be involved?	
National development units	<ul style="list-style-type: none"> <li>• <b>Core planning and financing government ministries</b> (e.g. planning and/or finance) as well as key line ministries (e.g. agriculture, WASH, education, health, infrastructure).</li> </ul>
Technical agencies	<ul style="list-style-type: none"> <li>• <b>Ideally, technical experts from climate change and national disaster units</b> provide technical input for capacity development of development practitioners, although external support may at times be required.</li> </ul>
Subnational government	<ul style="list-style-type: none"> <li>• <b>Human and technical capacity is needed</b> to support subnational decision makers and for subnational planners to have the capacity to risk screen and implement projects.</li> </ul>
Communities	<ul style="list-style-type: none"> <li>• <b>Community level capacity building</b> to help community members understand and identify risks associated with their development priorities, which might include (e.g. new school, new well, livelihoods and associated practices).</li> </ul>

How to support this entry point?		
Activity	Details	Expected results
Commitment	<ul style="list-style-type: none"> <li>• <b>Build commitment to develop the capacity of stakeholders</b> (<i>see leadership &amp; advocacy entry point</i>).</li> </ul>	<p><b>Capacity development plan.</b></p> <p><b>New risk posts within government units at all levels.</b></p>
Assessment	<ul style="list-style-type: none"> <li>• <b>Overview assessment of existing capacity identifying the different organisations/actors</b> involved and the difference capacities needed (at relevant level), including both government and professionals supporting implementation. Look for senior staff with an appetite to promote capacity building on risk.</li> </ul>	<p><b>New risk capacities for existing development policy makers and planners.</b></p>
Capacity development strategy	<ul style="list-style-type: none"> <li>• <b>Develop a capacity development strategy</b> – highlighting priority ministries, potential focal point individuals in a position to influence policy and planning processes, and whether current officers are able to take on additional risk roles, or if new capacity is needed. Training of trainers (i.e. focal points) is a sustainable option.</li> </ul>	<p><b>Behaviour change of development practitioners.</b></p>
Develop capacities	<ul style="list-style-type: none"> <li>• <b>Develop capacities of existing or new DRR/CCA focal points and senior officials</b> including those from vulnerable sectors. Capacity development must be ongoing, high quality and tailored to the audience and support on-going on-the-job coaching.</li> </ul>	

Challenges	
Turnover	<ul style="list-style-type: none"> <li>• <b>High staff turnover</b> which means that capacity development must be ongoing.</li> </ul>
External driven	<ul style="list-style-type: none"> <li>• <b>“Ad-hoc” externally driven</b>, short term, non-standardised, output oriented training approaches can undermine more sustained approaches.</li> </ul>
Extra workloads	<ul style="list-style-type: none"> <li>• <b>Overcoming “workshop fatigue” and giving individuals what can be perceived as extra responsibilities</b> and workloads</li> </ul>
Complexity	<ul style="list-style-type: none"> <li>• <b>Complexity of the risk agenda as a cross-cutting, highly dynamic, context specific agenda.</b></li> </ul>

Practitioner tips	
Innovation	<ul style="list-style-type: none"> <li>• <b>Take advantage of high profile agendas</b>, events and circumstances to find creative and innovative ways to build capacity for risk reduction and adaptation.</li> </ul>
Community capacity	<ul style="list-style-type: none"> <li>• <b>Community capacity building</b> as essential for ensuring sustainability</li> </ul>
Long-term approach	<ul style="list-style-type: none"> <li>• <b>Capacity building is long-term:</b> “capacity building should be incremental and not a stand-alone approach, anchored in the gaps identified by the national strategy” (LGU, Philippines).</li> </ul>
Simple training	<ul style="list-style-type: none"> <li>• <b>Training needs to be simple, not too technical</b> and link to existing procedures and tools.</li> </ul>

Toolkit	
Existing tools & gaps	<ul style="list-style-type: none"> <li>• <i>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</i></li> </ul>
Checklist	<ul style="list-style-type: none"> <li>• <b>Checklist for capacity development (to be prepared)</b></li> </ul>

Case studies	
Uganda	<ul style="list-style-type: none"> <li>• National and subnational capacity assessment.</li> </ul>
Angola	<ul style="list-style-type: none"> <li>• Training module for civil servants giving basic knowledge on DRR/CCA and local development planning.</li> </ul>
Niger	<ul style="list-style-type: none"> <li>• Training workshop on mainstreaming.</li> </ul>
Bangladesh	<ul style="list-style-type: none"> <li>• Institutionalising capacity building into curriculum of civil service academies.</li> </ul>
Solomon Islands	<ul style="list-style-type: none"> <li>• Institutionalising a network of new capacity and focal points.</li> </ul>
Vanuatu	<ul style="list-style-type: none"> <li>• Provision of dedicated capacity at national and subnational level for more systematic mainstreaming.</li> </ul>
Fiji	<ul style="list-style-type: none"> <li>• Capacity development at subnational level.</li> </ul>

# Coordination & responsibilities

What is meant by this entry point?	
Allocating responsibility for risk	<ul style="list-style-type: none"> <li><b>Organisational arrangements</b> serve to structure decision making and relationships. They clarify organizational functions and identify specific roles and responsibilities for risk between and within government agencies. They are therefore critical for mainstreaming implementation.</li> </ul>
Coordination on risk management	<ul style="list-style-type: none"> <li><b>Coordination promotes:</b> dialogue on risk, shared visions, consensus, collaboration, integrated action planning and implementation, participation and inclusion, collaborative and collective action and multi-stakeholder engagement. Critically it breaks down traditional silos and supports interconnections between different agencies working separately on risk management.</li> </ul>
What support is needed?	
Defining responsibilities	<ul style="list-style-type: none"> <li><b>Defined and clear institutional arrangements, functions, roles and responsibilities for risk</b> with shared responsibility by central government and relevant national authorities, sectors and stakeholders as appropriate to their national circumstance and systems of governance are needed.</li> </ul>
Coordination mechanisms	<ul style="list-style-type: none"> <li><b>Coordination mechanisms need to be established to support joint dialogue and action on risk management:</b> i) between national government agencies/sectors; ii) between national governmental and external non-governmental stakeholders including the private sector; iii) stakeholders and across sectors; iv) between subnational stakeholders (e.g. communities); and v) between national and subnational stakeholders. These mechanisms can be informal connections or more formalized systems for connecting stakeholders (e.g. networks).</li> <li><b>This entry point focuses, on coordination between government agencies</b> (see <a href="#">networks and partnerships entry point</a> for guidance on coordination with scientific, academic institutions, NGOs and the private sector).</li> </ul>
Why is this important for mainstreaming?	
Clear location & division of responsibilities	<ul style="list-style-type: none"> <li><b>Progress towards managing risk will need clear identification and division of responsibilities across government</b> and other agencies.</li> <li><b>Implementation depends on clear location of responsibility for risk management</b> so it is important to include CCA/DRR within mainstream functions of a department or section of the organisation in question.</li> </ul>
Focal points	<ul style="list-style-type: none"> <li><b>Identified focal points with allocated roles and responsibilities for CCA/DRR within an organisation</b> provide an important anchor for these issues in key government agencies.</li> </ul>
Coordination	<ul style="list-style-type: none"> <li><b>A cross-sector coordination mechanism</b> is needed for coordinating risk informed sector planning processes with risk informed national planning processes.</li> </ul>
Who should be involved?	
National level	<ul style="list-style-type: none"> <li><b>Need clearly identified focal points and coordination mechanisms</b> between Planning Departments, DRM and CCA agencies, line ministries should be formalised through coordination.</li> </ul>
Local level	<ul style="list-style-type: none"> <li>Ideally coordination mechanisms are duplicated at the local level but links are established vertically.</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Establish a network	Identify senior focal points in each key ministry or department or unit (national, sector and subnational level) to champion CCA/DRR mainstreaming in each organisation and create a network of focal points to interact with each other and technical experts (from lead DRM/CC agencies) on a daily basis.	<p><b><i>Institutionalized functions, roles, responsibilities and a network of focal points for risk informed development.</i></b></p> <p><b><i>Effective coordination mechanism at the relevant level(s) supporting cross-sector dialogue and action on climate and disaster risk management.</i></b></p>
Map institutions & individual roles	Map current institutional functions, roles and responsibilities within and between key government organisations. It is important to map the key institutions involved (or that can be involved) in risk management, noting their mandates, functions etc. It will be necessary to assess institutional arrangements for risk policy formulation and implementation contributing to practical ways to greater co-operation between diverse government stakeholders.	
Cross sectoral dialogue	Arrange cross-sectoral workshop at relevant level to discuss: i) functions of each agency with respect to risk; ii) confirm focal points; iii) agree roles and responsibilities; and iv) identify most appropriate coordination mechanism/ protocol for stakeholders (e.g. existing working group, new forum)	
Develop coordination mechanism	Develop ToR for coordination mechanism with clear roles and responsibilities, meeting schedule, communication and consultation procedures and most importantly identify lead individuals responsible for driving the coordination mechanism etc.	
Institutionalize roles	Identify mechanism (e.g. development act, policy/strategy/plan) for formalizing and institutionalizing network of focal points for resilient development, functions of key ministries for DRR/ CCA, roles and responsibilities etc. New responsibilities for risk will need to be institutionalized into job descriptions to ensure that they are implemented.	
Challenges		
Role of technical agencies	<ul style="list-style-type: none"> <li>Ministries responsible for DRR/CCA usually have a leading role in coordinating and implementing government policies, but they do not normally have authority over the allocation of resources or planning and budgeting procedures that determine how much money is allocated. It will be important to clearly define their roles as technical experts, information providers and teachers, building the capacity of development actors.</li> </ul>	
Institutional barriers	<ul style="list-style-type: none"> <li>Institutional development and coordination is a complex process, which needs to draw from, and build on, local realities. The success of mainstreaming within an organisations' structure and management cannot be viewed in isolation from broader institutional challenges a particular organisation might face (including political changes, personalities etc).</li> <li>Institutional arrangements are not always fully functional perhaps due to a lack of financial and human capacity. There is often a gap between mandated institutional structures and available resources for implementation of risk informed policies.</li> </ul>	
Silos approaches	<ul style="list-style-type: none"> <li>Silos often existing between government practitioners as well as between other development practitioners and there is often vertical and horizontal fragmentation i.e. including division of roles and responsibilities between various decision-makers at different scales.</li> </ul>	
Operational barriers	<ul style="list-style-type: none"> <li>A number of operational barriers exist that limit more effective collaboration and translation of intent into action e.g. sustained funding and identification of meeting venues and champions to coordinate.</li> </ul>	
Practitioner tips		
Build on existing structures	<ul style="list-style-type: none"> <li>Build on existing systems or coordination mechanisms, for example existing working groups or forums in the development sphere.</li> </ul>	
Clearly identify shared goal	<ul style="list-style-type: none"> <li>Successful coordination depends on clearly defined and shared objectives and jointly agreed procedures for committees and other arrangements.</li> </ul>	
Toolkit		
Existing tools & gaps	<ul style="list-style-type: none"> <li>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</li> </ul>	
Checklist	<ul style="list-style-type: none"> <li>Checklists for establishing responsibilities &amp; coordination networks (to be prepared)</li> </ul>	
Case studies		
Indonesia	<ul style="list-style-type: none"> <li>Strong commitment and clear distribution of roles and responsibilities.</li> </ul>	
Vanuatu	<ul style="list-style-type: none"> <li>High level crossing-cutting National Advisory Board.</li> </ul>	
Solomon Islands	<ul style="list-style-type: none"> <li>Inter-sectoral risk resilient working group in Solomon Islands.</li> </ul>	
Kenya	<ul style="list-style-type: none"> <li>Framework for coordination and integration of DRR and CCA.</li> </ul>	

# Procedures, tools & management

What is meant by this entry point?		
Procedures	<ul style="list-style-type: none"> <li>• <b>For risk to be fully mainstreamed into an organization, procedures must exist</b> to ensure risk is not a “stand-alone” issue with separate procedures and tools, but institutionalized within existing or planned processes or procedures (e.g., development planning, spatial planning, safety procedures). This ensures risk is internalized, replicable and more sustainable.</li> <li>• <b>Institutional procedures are predictable arrangements</b> (including rules, norms, processes or customs) serving to structure decision making and relationships (ODI, 2012).</li> <li>• <b>They are routine daily activities associated with different points of a departments’ programme cycle</b> and the rules governing actions between and within institutions and individuals. They can therefore provide a practical starting point for mainstreaming.</li> </ul>	
Tools	<ul style="list-style-type: none"> <li>• <b>Tools are entry points for practitioners to integrate climate and disaster risk into routine procedures.</b> For example, risk informed project proposal templates (for integrating risk into project planning processes) or review guidelines (for integrating risk into budget approval processes).</li> <li>• <b>Sometimes tools can provide a useful and tangible starting point for mainstreaming</b> – cascading a series of possible entry points (procedures, capacity development, awareness raising etc.).</li> </ul>	
What support is needed?		
Risk inform	<ul style="list-style-type: none"> <li>• <b>It is important to risk inform all key development procedures</b> to bring about a change in the way that business is done.</li> <li>• <b>Relevant procedures for mainstreaming are notably</b> those associated with policy, planning and project cycles. Key procedures will include: planning, programming, budgeting, implementing, compliance, enforcement, monitoring, evaluation and reporting. These can be associated with both public and private sector activities (e.g. risk informing private sector investment consenting procedures – see <i>Stakeholder Component</i>).</li> </ul>	
Standardize	<ul style="list-style-type: none"> <li>• <b>It is important for procedures incorporating risk to be standardized across sectors</b> to avoid duplication and conflict.</li> </ul>	
Supporting tools	<ul style="list-style-type: none"> <li>• <b>Responsibility for DRR/CCA and policy directives is reinforced</b> by internal procedures and incentives for individuals and organizations to engage.</li> </ul>	
Deal with cross-cutting procedures	<ul style="list-style-type: none"> <li>• <b>Mainstreaming into specific planning procedures/processes that can cut across sectors is necessary.</b> For example, risk integration into spatial planning will result in more resilient and safe human settlement. Spatial planning goes beyond traditional land use planning and integrates policies for the development of land use with other policies and programmes (UNHABITAT).</li> </ul>	
Why is this important for mainstreaming?		
Sustainability	<ul style="list-style-type: none"> <li>• <b>For risk to be fully integrated into an organisation on an ongoing basis,</b> procedures must exist to ensure risk is treated as an integral and vital part of decision-making processes. Ideally risk is integrated into existing procedures and tools to ensure their continued use and to avoid risk as an “add-on.” For example, procedures must exist to ensure that assessments/planning exercises for DRR/CCA do not remain one of exercises, but take place at regular intervals and throughout the project cycle.</li> </ul>	
Support for implementation	<ul style="list-style-type: none"> <li>• <b>Institutional procedures need to be fully functional</b> (and financed) to support the implementation of legislation, plans and policies, which express how risk should be integrated.</li> </ul>	
Who should be involved?		
Focal points	<ul style="list-style-type: none"> <li>• <b>Focal points are an important anchor for CCA/DRR within an organisation</b> and they should drive integration of risk into procedures and tools and provide relevant training to roll-out their use. Specifically, this entry point involves focal points in planning/finance; and sector line ministries. For example, it will be important for land-use, urban or project planners to have the appropriate tools and capacity to implement risk informed procedures.</li> </ul>	
Decision makers	<ul style="list-style-type: none"> <li>• <b>Individuals involved in investment approval procedures</b> for public and private investment (including ODA) need to be involved in the update of approval procedures to include risk (e.g. permitting procedures and EIA tools).</li> </ul>	
How can it be supported?		
Activity	Details	Expected results
Inventory	<p><b>Develop an inventory of all relevant procedures</b> within the level (e.g. national, sector, subnational etc.) and scope (e.g. policy, planning, project cycles) of analysis. Identify priority procedures and accompanying tools that could be risk informed or gaps in these.</p>	<p><b>Key development procedures</b> (e.g. <i>planning, programming</i>) and associated tools are risk informed and implemented on a daily basis supported by key focal points.</p>
Risk inform	<p><b>Risk inform the priority procedure and develop associated tools to support implementation,</b> ensuring that updates are accompanied by widespread consultation and piloting for buy-in.</p>	
Incentives	<p><b>Identify proper incentives</b> to change the culture of behaviour to ensure adoption of new risk informed procedures and tools (e.g. recognition, rewards, training).</p>	
Roll-out	<p><b>Accompany roll-out of risk informed procedure</b> with capacity development, training and piloting (see <i>capacity development entry point</i>).</p>	

Challenges	
Genuine commitment	<ul style="list-style-type: none"> <li>• <b>Requires genuine commitment from key stakeholders</b> to seize opportunities (e.g. political changes) and requires clear communication and advocacy and all levels, and continuous monitoring.</li> </ul>
Behavioural change	<ul style="list-style-type: none"> <li>• <b>Need to promote behaviour change within a ministry:</b> <i>“the hardest part is changing behaviour of Ministry staff to accept change, but this is slowly happening at different levels” (Rove, Ministry of Agriculture, Solomon Islands).</i></li> </ul>
Increase workload	<ul style="list-style-type: none"> <li>• <b>Danger that additional tools appear as extra workload</b>, so it is important as far as possible to <u>integrate risk into existing tools and procedures</u>. Hence it is equally important to provide proper incentives and change the behavioural culture in an organisation.</li> </ul>
Practitioner tips	
Consult	<ul style="list-style-type: none"> <li>• <b>Consult widely on proposed changes to procedures to ensure wider buy-in.</b></li> </ul>
Internally driven	<ul style="list-style-type: none"> <li>• <b>Ensure changes are seen as driven from within the development agenda and not by outside practitioners to ensure maximum buy-in (Dalesa, Vanuatu).</b></li> </ul>
Toolkit	
Existing tools & gaps	<ul style="list-style-type: none"> <li>• <i>[Practitioners to identify existing tools and gaps]</i></li> <li>• <i>E.g. Checklist: mainstreaming into the national/subnational planning processes (UNEP/UNDP)</i></li> </ul>
Checklist	<ul style="list-style-type: none"> <li>• <b>Checklists for risk informing procedures &amp; tools</b> (to be prepared)</li> </ul>
Case studies	
Vanuatu	<ul style="list-style-type: none"> <li>• Risk informing subnational planning processes/procedures &amp; developing guidelines.</li> </ul>
Uganda	<ul style="list-style-type: none"> <li>• Development of tools for mainstreaming risk into subnational decision making.</li> </ul>
Cambodia	<ul style="list-style-type: none"> <li>• Technical manual on mainstreaming into commune planning.</li> </ul>
Fiji	<ul style="list-style-type: none"> <li>• Sector procedures in the Ministry of Agriculture.</li> </ul>

# Projects & programmes

What is meant by this entry point?		
Risk informing projects and programs.	<ul style="list-style-type: none"> <li>• <b>Making sure that projects and programmes do not create new risks is at the heart of mainstreaming.</b> This means that risk will need to inform project management activities and decision-making procedures used in the life cycle of a project as well as logical frameworks and related budgets, project proposal forms and appraisal checklists.</li> </ul>	
What support is needed?		
Strengthen project procedures and tools to incorporate risk	<ul style="list-style-type: none"> <li>• <b>Incorporate risk into project assessment.</b> Unless risk assessments are carried out during the site selection and design stage, new development projects may increase existing risks or produce new ones. Drawing on risk assessment and risk information (e.g. GIS risk maps) (see <i>Knowledge component</i>) careful considerations need to be given to <u>site selection and construction design</u> taking into account hazard and vulnerability assessments, regulations and codes on hazard resistant practices.</li> <li>• <b>Incorporate risk management into project design.</b> Risk screening will help project planners to identify possible management measures that need to be incorporated into their projects to ensure they are more resilient and sustainable. For examples, in high risk areas, additional investments in risk management will be required for example in applying <u>hazard resistant features</u> in the building of social infrastructure like schools and hospitals. Similarly, an agriculture project might need to add new activities (e.g. agricultural program seasonal weather forecasting) or introduce new crops (e.g. flood or drought resistant crop types). Finally, poverty reduction programs could provide micro-insurance for assets provided under livelihoods projects or livelihood diversification options to help reduce vulnerability.</li> <li>• <b>Incorporate risk into project appraisal.</b> It will be important for risks to be considered as part of the project appraisal process and as part of budget allocation (see <i>budgeting entry point</i>).</li> </ul>	
Capacity development	<ul style="list-style-type: none"> <li>• <b>Capacity building will be needed for planners to ensure that risk is part of project design and planning activities but will also be needed by project implementers including project managers.</b> For example, investment in <u>enabling activities such as training</u> and certification for engineers, masons, and builders on hazard resistant building techniques might be required. Technical capacities to check and monitoring the design and <u>quality</u> of implementation (especially if this is to be contracted out to the private sector) needs to be provided thus linking this entry point closely to monitoring, compliance and enforcement) (see <i>Knowledge component</i>).</li> </ul>	
Why is this important for mainstreaming?		
Build resilience	<ul style="list-style-type: none"> <li>• <b>Risk informing the project and program cycle will help practitioners</b> design, implement, monitor and evaluate programs that build disaster and climate resilience (Turnbull, 2013).</li> </ul>	
Who should be involved?		
Planners	<ul style="list-style-type: none"> <li>• <b>Public and private sector project decision makers, planners, project managers and M&amp;E experts.</b></li> </ul>	
Technical specialists	<ul style="list-style-type: none"> <li>• <b>CCA and DRR experts from climate change and disaster management units</b> can provide technical advice on appropriate risk management measures and agencies that have the scientific, technical and service expertise to deliver specialized products, services and research (Tang, WMO).</li> </ul>	
Project “beneficiaries”	<ul style="list-style-type: none"> <li>• <b>Central to the process is ensuring the active involvement of “at-risk populations”</b> given that project effectiveness will increase if based on the needs of these individuals.</li> </ul>	
How can it be supported?		
Activity	Details	Expected results
Workshop	<p><b>A cross-sectoral workshop is needed to discuss approaches to risk informing the project planning cycle</b> and to map key stakeholders, processes and tools. This could draw upon coordination mechanisms established following support (see <i>responsibilities and coordination entry point</i>).</p>	<p><b>Implementation of risk informed projects</b> which ultimately support more resilient and sustainable development based on the needs and active engagement of local communities.</p>
Risk inform procedures and tools	<p><b>The core planning agency, with support from sector and subnational planners as appropriate, will need to risk inform the project cycle</b> by risk informing key project procedures (e.g., site selection, design, appraisal, implementation, M&amp;E) and risk informing support tools (e.g., project screening guidelines, project log frames) or where appropriate developing new combined tools– see <i>Procedures entry point</i>. It will be important to link with key activities and tools from the <i>knowledge component</i> (e.g. <i>risk maps for planners; or assessment processes</i>).</p>	
Implementation & review	<p><b>A plan for implementing new risk informed procedures and ultimately risk informed projects</b> will be required identifying timelines, responsibilities, budget etc., and this will need to be regularly reviewed.</p>	

Challenges	
Capacity	<ul style="list-style-type: none"> <li>• <b>Sufficient capacity is needed to implement</b> risk informed procedures and projects and enforce standards (see <i>Capacity entry point</i>).</li> </ul>
Long-term	<ul style="list-style-type: none"> <li>• <b>Risk informing projects is a long-term process</b> – given the need to involve multiple sectors, stakeholders and risk inform multiple procedures and tools.</li> </ul>
Management	<ul style="list-style-type: none"> <li>• <b>Current project management systems will need to be updated</b> to improve ability of national and local government officials to manage DRM programs and projects.</li> </ul>
Practitioner tips	
Build on existing	<ul style="list-style-type: none"> <li>• <b>It is important to build on existing project cycle processes and ensure that existing and established processes and tools</b> are used rather than adding stand-alone processes and tools for risk.</li> </ul>
Toolkit	
Existing tools & gaps	<ul style="list-style-type: none"> <li>• <i>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</i></li> </ul>
Checklist	<ul style="list-style-type: none"> <li>• <b>Project and Programme Checklist</b> (to be prepared)</li> </ul>
Case studies	
Solomon Islands	<ul style="list-style-type: none"> <li>• Inclusion of risk into public sector projects and programs.</li> </ul>
India	<ul style="list-style-type: none"> <li>• Risk informing education investments.</li> </ul>
Tajikistan	<ul style="list-style-type: none"> <li>• Project risk certification.</li> </ul>
Bangladesh	<ul style="list-style-type: none"> <li>• Delivering resilience through projects and programs.</li> </ul>

# Case studies: Organization

## Capacity Development

### Capacity assessment

- **National and subnational capacity assessment in Uganda.** A capacity assessment of the disaster and climate risk management sector was conducted and the findings presented to, and endorsed by the National Platform for DRR, including gaps and strengths. This resulted in preparation of a capacity development plan. In addition, a CRM Training Manual was developed specifically to assist local government institutions and organisations to adapt to climate change and manage associated risks. Based on a series of case studies at sites throughout Uganda, the manual provides a framework for managing increased climate change risks with the prime focus on the initial needs assessment and prioritisation of risk. One national and two regional training of trainer events were conducted using the manual and 220 management and technical staff from national government institutions, district local governments, UN agencies and NGOs attended. The sustainable propagation of CRM skills depends on this training of trainer approach. Finally, training material and a guidebook for implementation of community CRM initiatives was developed and tested in four districts (ICRMP, 2015).
- **A Risk Governance Assessment identifying capacity gaps in Vanuatu.** UNDP, through the PRRP, supported the Government of Vanuatu undertake a Risk Governance Assessment (RGA) in 2013 from national to local levels (vertically) and across all Government and other stakeholders (horizontally) involved in CCA, DRR and DM initiatives. This included a complete analysis of a broad range of issues including existing: policy, plans; institutional systems, mandates, partnerships, information management and communications. Capacity gaps for the sub-national level identified during RGA included a lack of a planning, budgeting and monitoring mechanism and limited understanding of disaster and climate change risk, including the interwoven gender social inclusion risks, amongst stakeholders working at national and local level within Government of Vanuatu (Malcolm Dalesa, UNDP PRRP).

### Training

- **Training module for civil servants in Angola.** A training module that can be rolled out nationwide to equip civil servants with basic knowledge on DRR/CCA and local development planning issues has been developed. It was adopted from a module developed by ILO/UNISDR (Sugimoto, Angola).
- **Training workshop on mainstreaming into development planning in Niger.** UNDP supported a training workshop on integrated DRR/CCA/gender mainstreaming into development planning for 60 regional participants. This provided the basis for supporting integration into Regional Development Plans and Regional Planning Schemas including associated guidance (Diawoye, Konte, UNDP, Niger).
- **Training manual in Nepal.** A training manual for mainstreaming CCA and DRR for government officials was developed and disseminated at national and local levels.

- **Institutionalise capacity building more sustainably in Bangladesh.** Risk information is key and a precondition for mainstreaming, but capacity building of planning officials (at local and national level) is “vital and a precondition” for success alongside a change in mind-set (Khurshid Alam, UNDP, Bangladesh). In Bangladesh, capacity development has been closely linked to formal education. A number of academic programmes at key universities and training institutes, and a number of government officials from different departments have been funded to attend these courses often incorporating risk management into regular civil service training. However, a major challenge is the high-turnover of trained staff. At the local level, 1,156 Farmer Climate Field School were established in 26 Districts and more than 1000 farmers and 300 officers have been oriented with DRR & CCA (Mohammad Abdul Qayyum, Ministry of Disaster Management and Relief, 2015).

### New capacity

- **Institutionalising a network of new capacity and focal points in Solomon Islands.** In Solomon Islands, new Risk Resilient Development Director posts were created in a number of ministries including the core development planning agency (MDPAC) and core sectors (e.g. Ministry of Agriculture and Livestock – MAL). These provide “in-house” expertise to support risk informed development from “within” and create a network of focal-points. It is the responsibility of the focal point to start and support the mainstreaming process, ensure that all staff members are made aware of CCA and DRR, and support ongoing capacity development. This has had a knock-on effect, for example, the initial process has resulted in the Ministry of Agriculture further allocating two additional officers from each province to directly work with the national focal point in mainstreaming risks at the sub national level. These sector posts complement dedicated Risk Resilient Development government posts that are being created in subnational planning functions to support local planning and recovery, starting with Temotu Province (Sipuru Rove, Risk Resilient Director, Ministry of Agriculture).
- **Provision of dedicated capacity builds momentum for more systematic mainstreaming in Vanuatu.** The provision of dedicated capacities or change agents (i.e. posts), within the sub-national level (DLA) and national level (Department of Strategic Planning, Policy and Aid Coordination – DSPPAC) to facilitate mainstreaming as per the development planning framework, has initiated momentum for a more systematic risk informed local development planning process including the development, piloting and implementation of risk informed planning guidelines (Malcolm Dalesa, UNDP PRRP, Vanuatu).
- **Capacity development at subnational level in Fiji.** Commissioners in the North and the West now have full-time Government staff dedicated to DRR and CCA within their teams. Through these posts, PRRP will be collaborating with local government to weave in DRR/CCA within various development sectors, provincial, district and community level plans as well as the Annual Divisional Business Plan. “We are finding that by having permanent capacity for risk within government development at all levels, that government can be responsive to new opportunities, changing needs (before, during and after disasters) and provide “in-house” support for more resilient approaches” (Manoa Malani, UNDP PRRP, Fiji).

- **Capacity development of national hydro-meteorological agency.** In Honduras, UNDP is currently working with the government to improve the capacity of the national hydro-meteorological agency to conduct climate monitoring, data collection and analysis. Specifically, it is supporting the national hydro-meteorological service and the Ministry of Emergency Situations in improving data collection and analysis for short and long-term forecasts of meteorological hazards, such as drought and flood (ICRMP).

## Coordination and Responsibilities

### Roles and responsibilities

- **The importance of strong commitment and clear distribution of roles and responsibilities in Indonesia.** In Indonesia, DRR is the responsibility of the Indonesian National Board for Disaster Management, and CCA is the responsibility of the Ministry of Environment. The perception that CCA was more important than DRR as well as the silo mindset until recently prevailed, with no clear guidance from the National Planning Agency. In 2013, a process for developing a national “DRR-CCA Convergence Framework document” was initiated and involved multiple stakeholders from across government and civil society. To date, no draft has been finalised in part because of the lack of clarity between the roles and responsibilities of the key government stakeholders. However, the experience has highlighted a need for strong commitment and clear distribution of roles and responsibilities particularly of government actors (Andrys Erawan and Priyo Sayoka, UNDP Indonesia).

### Coordination

- **High level crossing-cutting National Advisory Board (NAB) in Vanuatu.** A National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) was created in 2012 as the high-level policy making and strategic advisory body replacing previous CCA and DRR-specific parliamentary committees (the National Advisory Committee on Climate Change and the National Task Force on DRR). It was chaired in 2013 by Directors of the Vanuatu Meteorology and Geo-Hazards Department (VMGD) and NDMO. It includes senior representatives of sectorial government agencies and NGOs as well as the chamber of commerce. Key roles are to: a) raise awareness on CCDRM; b) policy design; c) integration of CCDRM into sectorial strategies; d) design of SOPs and guidelines for integration; and e) monitor and raise awareness on CCDRM. There was a perception that the NAB duplicated functions of other agencies and institutions and that it was dominated by MCC. Therefore, a Risk Governance Analysis was initiated by the government and funded by UNDP PRRP in 2013 and brought these issues into the open and helped align leadership (now co-chaired by Minister of MCC and DG of Prime Ministers Offices – PMO) with links established to overall development policy-making. PMO and the Department for Strategic Policy and Planning and Aid Coordination (DSPPAC) are now actively involved in the NAB Project Screening Committee. The analysis also helped refine secretariat and project management arrangements for the NAB (Malcolm Dalesa, UNDP PRRP).
- **Inter-sectoral risk resilient working group in Solomon Islands.** A Risk Resilient Development working group was established as an internal MDPAC forum in early 2014 to discuss the relevance of risk to planners. Gradually

this was extended to specialists from the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) and eventually focal points from other sectors. The working group – comprising Director level representations and technical officers developed an Action Plan for Resilient Development and Terms of Reference for the group. Given current overlaps with the newly launched Recovery Coordination Committee (also chaired by MDPAC), there is ongoing discussion as to whether this working group will be merged with the committee to ensure support for resilience as part of recovery and ongoing development. In the meantime, a high level Resilient Development working group, is also being established for Permanent Secretaries of apex and sector ministries to discuss mainstreaming and risk informed development. This will be launched mid-June, 2016 (Adi Galokepoto, UNDP PRRP).

- **A framework for supporting coordination and integration of disaster risk reduction and climate change adaptation in Kenya.** A framework has been developed with support from UNDP, to provide guidelines for the integration of DRR and CCA initiatives into relevant policy institutional and implementation frameworks at the county and national government level. It is a resource for government stakeholders as well as development and humanitarian organisations and sets to foster complementary practices and coordination between multiple actors working towards a common goal. It aims to overcome a number of key mainstreaming challenges including separation of DRR and CC policies/bills, institutional separation, inadequate human and financial resources and limited involvement of the private sector and research institutes (Francis Matheka, UNDP, Kenya).

## Procedures and Tools

- **Risk informing subnational planning processes in Vanuatu.** The Department of Local Authorities (DLA) requested the Pacific Risk Resilience Programme (PRRP) to provide technical assistance to develop planning, budgeting and monitoring guidelines, and this was applied as a starting point for the integration of CCDRR into sub-national development. This is done within a political context of decentralization and promotion of bottom-up planning, although links will be made to national planning led by the national planning department. Provincial planners, area secretaries and officials from selected sectors (e.g., education, agriculture) have been involved in the design and testing process. The resulting guidelines have been the subject of wide consultation with key stakeholders and have been piloted in four out of six provinces. They will be sent to the Council of Ministers in June, 2016 for endorsement. Furthermore, the Decentralization Act and associated policy framework will be reviewed to accommodate these changes. The ultimate aim is to abolish the practice of separate CCA and DRM plans and instead the Area Council Plan (based on community identified development priorities) will guide partners on development/ CCDRR linkages (Ben Tabi, DLA, Vanuatu).
- **Development of tools for mainstreaming risk into subnational decision making in Uganda.** The Integrated Climate Risk Management Programme (ICRMP) has resulted in a number of useful tools for sub-national government and communities supporting an integrated approach to decision making. These include: “Training Manual in Climate Risk Management,” and a “Community Risk Reduction and Climate Adaptation Planning and Implementation Guidebook”

These have supported the integration of climate and disaster risks into district profiling as part of planning and budgeting processes by district-level planning units. What has proved challenging is building the commitment and support of policy-makers across government, rather than simply DRR and CCA practitioners in ministries and ensuring commitment is cohesive across the traditionally separate agendas (Goldfinch, UNDP, Uganda).

- **Developing a Technical Manual on Mainstreaming CCA and DRM into Commune Planning in Cambodia.** Working to support Cambodia in decentralisation reform and resilience building, UNDP helped development a manual, which supports mainstreaming risk management into commune planning. It has been piloted in 21 of the 25 provinces in Cambodia (Pheranich Hing, UNDP, Cambodia).
- **Sector procedures in the Ministry of Agriculture in Fiji.** After establishing a new post for DRR and CCA, the Ministry is integrating Climate and Disaster Risk Management into all divisions and levels including at sub-national level. There is a dedicated risk management unit within the Ministry to drive this forward which has developed DRM Standard Operating Procedure (SOP) to all divisions/levels and is incorporating risk management into its Annual Corporate Plan (Katerina Nabola, Senior CCA-DRM Project Officer, Ministry of Agriculture).

## Projects and Programmes

- **Inclusion of risk into public sector investment in Solomon Islands.** The Budget Bid templates for new proposals and ongoing projects shared by the Ministry of Development Planning and Aid Coordination with sector planners, provided the ideal starting place for inclusion of risk into the planning process. Project risk screening guidelines and an accompanying tool were then prepared by the MDPAC Risk Resilient Development Director with support from PRRP for use by project planners for medium to large scale projects (a shorter risk screening questionnaire and checklists was developed for use with small scale projects). The tools help sector and subnational project planners assess risks (environmental, climate, disaster, financial, operational) to and from development projects (i.e., associated with the site selection, design and implementation) and provide guidance on identifying and costing appropriate management measures and identifying indicators for monitoring their effectiveness (Jack Filiomea, RRD Director, MDPAC).
- **Risk informing school infrastructure investments in India.** Under a national flagship program to improve education, funds are provided to each state for the construction of new schools and classrooms. However, in the state of Uttar Pradesh modifications of the existing designs for the school structures had to be undertaken to make them hazard resilient. This came at an additional cost of 8 percent, which the state was able to mobilize from the central level fund. The implementation project officers and engineers underwent training on how to incorporate hazard resistant features and guidelines on structural and non-structural school safety were later developed. As a result, 80,000 safe schools were designed and constructed in one year (UNDP, 2010).
- **Project risk certification process in Tajikistan.** In 2012, UNDP's Disaster Risk Management Programme (DRMP) initiated a risk certification process. This assists project planners to define hazards that threaten implementation and outcomes and identify and implement specific actions to address these

threats. Programmes can receive partial or full DRR certification depending on the level of assessment and integration of DRR into development activities. DRR certification is ongoing and has focused on the Disaster Risk Management Programme's own portfolio and the EEP, although lessons are being shared with other UNDP programs and other development programs and can be drawn upon by governments (Firdavs Faizulloev, UNDP (Tajikistan)).

- **Delivering resilience through projects and programs in Bangladesh.** The Planning Commission has already included climate change issues into the ten-year, five-year and annual development plans and projects. Any project submitted to the Commission is checked for alignment with existing plans and policies, thus integrating climate change into higher-level plans and reinforcing mainstreaming. The Planning Commission leads the annual development program (ADP) whilst the Ministry of Finance handles the non-development budget. Programmes delivering climate-response activities represent up to 4 percent of GDP. Between 20 and 25 percent of government expenditure is on programs with a climate dimension (IIED, 2014).

# 5. Stakeholders

## Government

What is meant by this entry point?	
<b>Government</b>	<ul style="list-style-type: none"> <li>• <b>Governments have the primary responsibility for delivering development and protecting their citizens</b> by reducing (as far as possible) exposure to risk, implementing measures to reduce risk, support adaptation to climate change, provide DRM goods and services (e.g. flood defenses, early warning systems, insurance), regulating the private sector, and providing timely support in response to any disasters.</li> <li>• <b>Key stakeholders will include</b> apex and line ministries, sub-national government, commissions, parliament, councils, committees, public institutions, hydro-meteorological agencies, police and the army.</li> <li>• <b>National government is seen as the enabling actor and local government the principal implementing actor</b> (ODI, 2014). Depending on the type of decentralization taking place within a country, the authority of subnational government in the planning and delivery of public services can vary.</li> </ul>
What support is needed?	
<b>Engagement</b>	<ul style="list-style-type: none"> <li>• <b>Government champions, leaders or change agents</b> (see <a href="#">leadership &amp; advocacy</a>) will need to galvanize the engagement of focal points in core planning and line ministries, subnational government and other key government stakeholders (e.g., national hydro-meteorological agencies).</li> </ul>
<b>Clarification of roles and relationships</b>	<ul style="list-style-type: none"> <li>• <b>Institutional and individual functions, roles and responsibilities need to be clarified</b> both horizontally (across stakeholders) and vertically (i.e. among different levels of government). This is particularly important in some countries undergoing decentralization processes (see <a href="#">coordination &amp; responsibility</a>).</li> </ul>
<b>Coordination mechanism</b>	<ul style="list-style-type: none"> <li>• <b>Ideally a high-level cross sectoral coordination mechanism is used to discuss and drive mainstreaming</b> and to develop a <a href="#">Mainstreaming Action Plan</a> for promoting engagement of all key stakeholders. Ideally this builds on existing coordination mechanisms (linked to the development agenda) rather than duplicating coordination mechanisms.</li> </ul>
Why is this important for mainstreaming?	
<b>Establish enabling environment</b>	<ul style="list-style-type: none"> <li>• <b>Decision-makers, legislators and administrators at the national, sectoral, and local levels provide the supportive</b> framework of norms, standards, financial incentives and other types of knowledge, services and capacities to help individuals, households, community organizations and business to take decisions that reduce their exposure to risks.</li> </ul>
<b>Drive implementation</b>	<ul style="list-style-type: none"> <li>• <b>Government has to provide resources, build capacities, plan, monitor and enforce</b> the implementation of risk reduction and adaptation activities within development. Decentralizing responsibilities and resources can help subnational governments respond to local specific characteristics and can motivate local actors to improve the delivery of development services in a more resilient nature.</li> </ul>
Who should be involved?	
<b>All levels &amp; key agencies</b>	<ul style="list-style-type: none"> <li>• <b>This entry point will ensure that key government stakeholders</b> including apex and line ministries, commissions, parliament, councils, public institutions, hydro-meteorological agencies, police, army, are engaged in mainstreaming. However, government will not be able to act alone but will require the involvement and cooperation of other actors (UNDP, 2010).</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Workshop	Ideally a “whole of government” meeting or workshop is convened by a government leader (see <i>leadership and advocacy</i> ) to bring all key actors to the table to discuss approaches and priorities for mainstreaming action. Priority actions emerging from the discussion will form the basis of an <b>ACTION PLAN</b> for mainstreaming. This would be an appropriate forum for identifying key focal points from core government agencies and to discuss the most appropriate coordination forum.	<b>Government stakeholders from key agencies and levels are committed and engaged in the mainstreaming agenda.</b>  <b>Mainstreaming Baseline</b> identifying key entry points.
Mainstreaming Action Plan	A <b>Mainstreaming Action Plan</b> can be developed based on the workshop recommendations and this will identify priority component/sub-component entry points for mainstreaming and roles and responsibilities for driving these forward. Ideally, these will identify actions, assign responsibilities, timelines and budgets against each of the priority mainstreaming components/sub-components.	<b>Mainstreaming Action Plan.</b>  <b>Coordination mechanism</b> and focal points for mainstreaming.
Coordination mechanism	The most appropriate <b>coordination mechanism for engaging key government actors</b> for ensuring dialogue, information sharing and exchange and joint approaches to risk informing development policies, plans and investment should be identified and then launched (see <i>coordination and responsibilities</i> ).	
Challenges		
Decentralization	<ul style="list-style-type: none"> <li>Decentralization processes can mean that adding new risk management functions can overburden local governments (UNDP, 2015) unless accompanied by increased capacity, accountability mechanisms and funding.</li> </ul>	
Incentives	<ul style="list-style-type: none"> <li>Adding new risk responsibilities to already overburdened government officials can be challenging and may need to be accompanied by incentives e.g. performance measures for DRR/CCA in contracts.</li> </ul>	
Practitioner tips		
Formalisation	<ul style="list-style-type: none"> <li>To institutionalize involvement in the mainstreaming process it might be important to work with public services to update job descriptions.</li> </ul>	
Toolkit		
Existing tools & gaps	<ul style="list-style-type: none"> <li>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</li> </ul>	
New tools & checklists	<ul style="list-style-type: none"> <li><b>Checklist for Engaging Government</b> (to be prepared)</li> <li><b>Tool 1: MAINSTREAMING BASELINE template</b> (e.g. table mapping status against mainstreaming the components/sub-components)</li> <li><b>Tool: MAINSTREAMING ACTION PLAN (MAP) template</b> (e.g. table identifying actions, responsibilities, timelines &amp; budgets on the x axis and the mainstreaming components/subcomponents on the Y axis)</li> </ul>	
Case studies		
Zimbabwe, Malawi and Mozambique	<ul style="list-style-type: none"> <li>National Mainstreaming Action Plans.</li> </ul>	
Solomon Islands, Tonga, Vanuatu & Fiji	<ul style="list-style-type: none"> <li>National Mainstreaming Baselines.</li> </ul>	

# Civil society

What is meant by this entry point?	
Civil society	<ul style="list-style-type: none"> <li>• <b>Comprises a wide range of organizations including</b> civil society organizations (CSOs), community-based organizations (CBOs), the private sector, research bodies, inter-governmental bodies such as regional organizations and regional development banks.</li> <li>• <b>All these actors have complementary but different roles in support of mainstreaming</b> that draw upon a mix of scientific and local knowledge to shape actions and appreciation of the dynamic nature of risks.</li> </ul>
What support is needed?	
Increase alignment	<ul style="list-style-type: none"> <li>• <b>Local governments need to galvanize civil society commitment to work with them over the long term</b> by building partnerships and ensuring that key civil society activities are aligned with government initiatives and local development plans.</li> </ul>
Increase civil society support & engagement	<ul style="list-style-type: none"> <li>• <b>Civil society organizations interface most directly with communities</b> and are therefore a key constituent in local level risk reduction and adaptation. Supporting these actors to engage in project planning, implementation and monitoring is often the most direct line to supporting local priorities and understanding local realities. Engaging with these organizations will promote support for: i) advocacy; ii) research; iii) local awareness raising; iv) capacity building and training; and v) service delivery (OECD, 2009).</li> <li>• <b>Civil society engagement</b> broadens access to information, data and knowledge, and can significantly legitimize and improve the substantive quality of local decision making. It also provides decision-makers with an awareness of the value and trade-offs between possible options and competing stakeholder concerns; and ultimately will support buy-in and ownership of ultimate decisions.</li> </ul>
Build capacity & empower	<ul style="list-style-type: none"> <li>• <b>Empowerment of essential non-governmental organizations</b> is important alongside essential support to local governments to strengthen their capacities to work with these organizations.</li> <li>• <b>It will be important to help build capacity of communities to support DRR/CCA and risk inform priority development needs.</b> Communities play a core role in: i) documenting and sharing information on risk; ii) identifying development needs and determining how risk could interrelate with these; iii) implementing DRR/CCA activities; and iv) sharing experiences and lessons learned. It is important that communities are empowered to influence decisions that affect them.</li> </ul>
Behavioral change	<ul style="list-style-type: none"> <li>• <b>CCA and DRR often require behavioral change at the local level</b> and therefore it is important that these key stakeholders are actively involved in decision making and the implementation and M&amp;E of activities.</li> </ul>
Why is this important for mainstreaming?	
Target vulnerability	<ul style="list-style-type: none"> <li>• <b>Civil society organizations have intimate understanding of the local environment, local priorities and needs</b> and therefore engagement with these groups can be one of the most effective and efficient approaches to targeting key vulnerable groups.</li> <li>• <b>Improving civil society participation can be one of the most effective means of strengthening governance</b> in support of resilient development: <i>“when communities are actively engaged in their own development processes, project outcomes will be better targeted to local needs and results will be more sustainable”</i> (UNDP, 2014).</li> </ul>
Internalizing risk	<ul style="list-style-type: none"> <li>• <b>Civil society organizations can support DRR and CCA at the local level by internalizing and institutionalizing</b> risk management into their own decision-making processes and operations.</li> </ul>
Experts in integration	<ul style="list-style-type: none"> <li>• <b>CSOs and CBOs are particularly well positioned to link DRR and CCA together</b> given they are some of the few to combine such expertise (Mitchell, 2010).</li> </ul>
Forge linkages	<ul style="list-style-type: none"> <li>• <b>NGO activity has traditionally bypassed local governments</b> and often valuable CCDRM projects are outside of mainstream development. This challenges linkages and sustainability; and therefore, forging great linkages between subnational government and local organizations is essential.</li> </ul>
Who should be involved?	
CBOs and CSOs	<ul style="list-style-type: none"> <li>• <b>CSOs and CBOs play a significant role in developing initiatives to reduce risks and adapt to climate change).</b> They represent communities and the most vulnerable members of society, can play an important role in DRR/CCA mainstreaming, and can represent grassroots interests in different forums and decision-making levels.</li> </ul>
Community & leaders	<ul style="list-style-type: none"> <li>• <b>Communities are the ultimate beneficiaries of development policies, strategies and projects.</b> However, they are also an important source of knowledge, and are a key actor in DRR/CCA: <i>“the most critical component for mainstreaming DRR and CCA would be the community, the actual theatre for most of the activities”</i> (Joshi, India).</li> <li>• <b>Key individuals in a community can be a leading role in championing and engaging with CCA/DRR.</b> Often these can be community leaders, but other advocates might be identified.</li> </ul>
Marginal groups	<ul style="list-style-type: none"> <li>• <b>Specific attention to economically and socially marginal or vulnerable groups.</b> The elderly, given their local knowledge, skills and understanding of local technologies are often identified as a key group. Women in particular are vital agents of change and have valuable knowledge, experience and resources for protecting and decreasing risk to families and communities.</li> </ul>
Local government	<ul style="list-style-type: none"> <li>• <b>Brokering cooperation and links between local government and civil society</b> is essential for driving change at the local level.</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Map	Map key civil society actors whose engagement will be valuable for risk informed development.	<b>Increased collaboration and engagement of civil society with local government in support of locally driven risk informed development.</b>
Convene	Convene regular national and local level meetings to discuss civil society engagement and identify the most appropriate roadmap for this.	
Plan	Identify clear opportunities to strengthen local government engagement with civil society and identify roles and responsibilities for driving this forward.	
Challenges		
Participation	<ul style="list-style-type: none"> <li>Meaningful participation/citizen involvement is one of the challenges most governments are facing. It is important to work with local civil society organizations to identify methods of participation, which produce meaningful participation, which is empowering (Halake, Kenya).</li> </ul>	
Bypassing government	<ul style="list-style-type: none"> <li>At times, non-governmental organisations have carried out separate activities that are not linked to mainstream development activities and may not always be linked to national/subnational or sectoral objectives for DRR/CCA. Ideally, NGOs should work directly with governments.</li> </ul>	
Scaling up	<ul style="list-style-type: none"> <li>CSOs often face challenges in securing resources for replicating successful initiatives and scaling up geographically. By linking with local government, partnerships for sharing capacity and resources will enable scaling up of successful initiatives.</li> </ul>	
Practitioner tips		
Grassroots involvement	<ul style="list-style-type: none"> <li>Grassroots involvement, which gives a voice to the most vulnerable is important. Development that is “bottom up” based on the needs of the most vulnerable groups should be promoted</li> </ul>	
Toolkit		
Existing tools & gaps	<ul style="list-style-type: none"> <li>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</li> <li>Guidance Note 2: Engage Local Communities (World Bank) – agriculture</li> </ul>	
Checklists	<ul style="list-style-type: none"> <li>Checklist for civil society engagement (to be prepared)</li> </ul>	
Case studies		
Japan	<ul style="list-style-type: none"> <li>Civil society involvement and engagement to support implementation of local plans.</li> </ul>	
Tonga	<ul style="list-style-type: none"> <li>Local protection committees in Tonga to improve participation of vulnerable groups.</li> </ul>	
Zimbabwe	<ul style="list-style-type: none"> <li>Empowering flood prone communities.</li> </ul>	
Indonesia, Nepal & Uganda	<ul style="list-style-type: none"> <li>Identifying and integrating needs and concerns in relation to DRR and CCA.</li> </ul>	
Africa	<ul style="list-style-type: none"> <li>Involving youths and the media as agents of change.</li> </ul>	

# Private sector

What is meant by this entry point?	
Private sector	<ul style="list-style-type: none"> <li>• <b>The private sector plays an increasingly important role in DRR and CCA.</b> It can support risk management by: i) providing economic opportunities and growth; ii) service delivery (e.g. health, water) thereby building coping capacities and vulnerability; iii) leveraging political commitment; iv) providing financial, technical and human resources (for example, innovations and technologies that can help reduce risk (e.g. technologies for water conservation, more resilient buildings techniques); and v) supporting public-private partnerships. There are three main avenues for engagement:</li> </ul>
1. Corporate social responsibility	<ul style="list-style-type: none"> <li>• <b>This includes advocacy and awareness raising on DRR and funding support, capacity and expertise</b> to help implement measures. For example, donating assets such as water tanks or business employees helping to plant mangrove in low-lying coastal areas.</li> </ul>
2. Public-private partnerships (PPP)	<ul style="list-style-type: none"> <li>• <b>These can be developed to enhance provision of public goods</b> or services for DRR/CCA, for example building material, more resilient crop species or telecommunications services.</li> </ul>
3. Business model approaches	<ul style="list-style-type: none"> <li>• <b>This involves mainstreaming risk into the strategic goals and activities of an enterprise.</b> For example, the insurance industry supplying tools transferring and sharing disaster risks and losses, or a business reviewing the relevance of climate and disaster risks to and from its business.</li> </ul>
What support is needed?	
Promote engagement	<ul style="list-style-type: none"> <li>• <b>Government needs to mobilize the private sector into action</b> including advocating for businesses to consider risk in their own operations. Flawed private sector investment can have negative impacts on local communities and could increase exposure. For example, a tourist facility located in a low-lying coastal area, or a timber company cutting trees upstream in a river catchment.</li> </ul>
Review private sector investment	<ul style="list-style-type: none"> <li>• Governments need to carefully review investment proposals to identify costs and benefits and incorporate climate and disaster risks into current social and environmental impact assessments.</li> </ul>
Why is this important for mainstreaming?	
Internalizing risk	<ul style="list-style-type: none"> <li>• <b>Private sector organizations can support DRR and CCA at the local level by internalizing and institutionalizing</b> risk management into their own decision-making processes and operations. The business case for the private sector to invest in DRR/CCA includes reducing the direct exposure of their operations, their indirect exposure (e.g. risks to supply chains, markets, infrastructure, energy support, transport networks) and taking advantage of opportunities (e.g. need for new technologies) (ODI, 2014).</li> </ul>
Compliance	<ul style="list-style-type: none"> <li>• <b>Private sector actors</b> such as builders and engineers can play a significant role in the implementation of public development including adhering to national standards, regulations and codes incorporating risk measures (e.g. building codes).</li> </ul>
Support for SMEs	<ul style="list-style-type: none"> <li>• <b>Small and medium sized enterprises (SMEs) or micro-enterprises make up the majority of the private sector in developing countries.</b> Informal businesses provide for the livelihoods, employment and income of households and form the backbone of community resilience. It is important that government provides support to help these informal businesses reduce and prepare for disaster hazards or climate change given that many will not have insurance or contingency plans and will have limited coping capacity.</li> </ul>
Who should be involved?	
All size businesses	<ul style="list-style-type: none"> <li>• <b>Governments should promote the active involvement of all sized organisations</b> in the private sector.</li> </ul>
Professional societies	<ul style="list-style-type: none"> <li>• <b>Professional societies (e.g. builders, architects) and trade associations can play a significant role</b> in development and implementing standards and practices for DRR/CCA (see <a href="#">Standards</a>). Similarly, information communication technology, media and communications can all play an important role in increasing risk knowledge and awareness.</li> </ul>
Permitting units	<ul style="list-style-type: none"> <li>• <b>It will be important to increase government capacity to scrutinise impact assessments</b> commissioned by prospective private sector investors examine climate and disaster risks associated with proposed investment and the appropriateness of proposed risk management measures.</li> </ul>

How can it be supported?		
Activity	Details	Expected results
Map	Map key private sector actors whose engagement will be valuable for risk informed development.	<b>Increased collaboration and engagement of private sector</b> in support of locally driven risk informed private and public development.
Convene	Convene a national meeting with key businesses, chamber of commerce and or representatives of informal businesses to discuss private sector engagement and identify the most appropriate roadmap for their engagement with risk management.	
Plan	Identify clear opportunities to strengthen private sector engagement in support of public and private sector mainstreaming, including identifying incentives to encourage private sector to incorporate risk management into its strategic planning process, business planning or investment planning process.	
Update	Review investment approval procedures and update to incorporate climate and disaster risk alongside training to roll-out new risk informed processes.	
Challenges		
Business case	<ul style="list-style-type: none"> <li>The business case for private sector involvement in DRR/CCA is not always clear, hampering private sector involvement (Lal, 2012).</li> </ul>	
Practitioner tips		
Draw upon private sector tools	<ul style="list-style-type: none"> <li>Draw upon private sector tools (e.g. ISO standards on risk management 31000, 31010, 22301, 5510) which provide some useful insights into comprehensive risk management (Vargas, Panama).</li> </ul>	
Toolkit		
Existing tools & gaps	<ul style="list-style-type: none"> <li>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</li> </ul>	
Checklists	<ul style="list-style-type: none"> <li><b>Checklist for private sector engagement</b> (to be prepared)</li> </ul>	
Case studies		
Fiji	<ul style="list-style-type: none"> <li>Private-public partnerships (PPP) in the agriculture sector in Fiji.</li> </ul>	
Nepal	<ul style="list-style-type: none"> <li>PPP to support community-based Early Warning Systems.</li> </ul>	
Vanuatu	<ul style="list-style-type: none"> <li>PPP with telecommunications companies in Vanuatu.</li> </ul>	
Nepal	<ul style="list-style-type: none"> <li>Risk informed business training.</li> </ul>	

# Partnerships & networks

What is meant by this entry point?		
<b>Partnerships</b>	<ul style="list-style-type: none"> <li>• <b>Formal partnerships</b> are specific joint arrangements, bringing together the knowledge, skills and resources of different stakeholders.</li> <li>• <b>Informal partnerships</b> are based on a shared vision and trust and may be preferable where formal partnerships are not possible or stalled due to political context or organizational conflicts.</li> <li>• <b>Networks and partnerships can be developed at all levels</b> e.g. international, regional, national and subnational.</li> </ul>	
<b>Networks</b>	<ul style="list-style-type: none"> <li>• <b>Actors and groups are brought together through networks</b>, which are largely governed by formal institutions (ODI, 2012). Mainstreaming requires the involvement of a wide range of stakeholders to be effective, and diverse actors and groups are brought together through networks in support of collaborative action and multi-stakeholder engagement.</li> </ul>	
What support is needed?		
<b>Establish new partnerships</b>	<ul style="list-style-type: none"> <li>• <b>Government can establish partnerships with:</b> i) the <u>private sector</u> to achieve responsiveness and shared responsibilities; and ii) <u>civil society</u> often to support implementation. These can be built on synergies or to complement each other's strengths (e.g. government and private sector) or to increase outreach (e.g. government and NGOs).</li> </ul>	
<b>Establish networks</b>	<ul style="list-style-type: none"> <li>• <b>Government should promote networks in support of multi stakeholder dialogue, shared learning and action.</b> Increasingly, new forms of communication and dialogue provide innovative opportunities for building networks and engagement, such as on-line communities of practice for risk informed development.</li> </ul>	
<b>Establish a single community</b>	<ul style="list-style-type: none"> <li>• <b>The tool promotes a single DRR/CCA/development community that would deal with all measures</b> addressing all hazards (including climate-related disaster risk) and focus on vulnerability reduction across all hazards and hazard drivers including climate change. This would also mean a more efficient and less fragmented funding system (Tang, WHO).</li> </ul>	
Why is this important for mainstreaming?		
<b>Support for implementation</b>	<ul style="list-style-type: none"> <li>• <b>Partnerships improve likelihood</b> of effective policy implementation.</li> <li>• <b>Partnerships can increase capacity</b> e.g. partnerships with academic or research institutions.</li> <li>• <b>Linkages between entities</b> improves effectiveness and coordination of action on climate and disaster risk management</li> </ul>	
<b>Deal with the multi-faceted nature of risk</b>	<ul style="list-style-type: none"> <li>• <b>CCA/DRR are complex and cross-cutting issues</b>, and no single group or organization can address every aspect of DRR/CCA that require an inter-disciplinary and multi-level approach</li> <li>• <b>Instead, multi-disciplinary, inter-disciplinary, interagency and multi-level</b> approaches are needed including networks that foster cooperation between government and non-government stakeholders.</li> </ul>	
<b>Share innovation &amp; knowledge</b>	<ul style="list-style-type: none"> <li>• <b>Partnerships and networks are ideal forums for sharing new knowledge, research and technologies</b> that can support mainstreaming.</li> </ul>	
Who should be involved?		
<b>Private sector</b>	<ul style="list-style-type: none"> <li>• <b>The private sector can bring skills, knowledge, capacities, technologies, experience and finance</b> amongst other attributes in support of mainstreaming.</li> </ul>	
<b>Civil society</b>	<ul style="list-style-type: none"> <li>• <b>Civil society can bring local knowledge and understanding, outreach and capacity</b> amongst other attributes and are essential for mainstreaming implementation.</li> </ul>	
<b>Research units</b>	<ul style="list-style-type: none"> <li>• <b>Partnerships established with meteorological and scientific institutions</b> can lead to improved information sharing and understanding. Development actors will need to consult, and be assisted by, agencies that have the scientific, technical and service expertise to deliver specialised products and services (Tang, WHO).</li> </ul>	
<b>Development partners</b>	<ul style="list-style-type: none"> <li>• <b>Development partners are key actors in advancing mainstreaming.</b> For example, multilateral agencies (e.g. UNDP), multi-lateral development banks (e.g. WB, ADB) and bilateral agencies (e.g. DFAT, DFID).</li> </ul>	
How can it be supported?		
Activity	Details	Expected results
<b>Dialogue &amp; workshops</b>	<p><b>Partnerships are built on dialogue</b> – so a first step should involve bringing relevant organizations together to discuss common issues related to DRR/CCA. For example, it might be relevant to arrange a multi-stakeholder workshop (at the relevant levels or for all levels) to discuss opportunities for partnerships and networking.</p>	<p><b>Partnerships are established with key stakeholders at relevant levels to support implementation of risk informed development.</b></p>
<b>Agreement</b>	<p><b>It will be important to generate agreement</b> on shared goals, scope, agenda, working arrangements and ground rules for cooperation. If formal partnerships or networks are to be established, it may be necessary to sign a memorandum of understanding, which outlines coordination protocols, or partnership commitments. Equally valid are informal partnerships, connections or networks.</p>	<p><b>Networks are developed at relevant levels to share knowledge, experience &amp; support implementation.</b></p>

Challenges	
<b>Broker</b>	<ul style="list-style-type: none"> <li>• <b>Effective partnerships often require a broker to get the two parties together.</b> To overcome this, it might be necessary to provide incentives for government officials to broker partnerships.</li> </ul>
<b>Government involvement</b>	<ul style="list-style-type: none"> <li>• <b>It is common that national and/or local level government officials are not involved in dialogue and discussions on DRR/CCA.</b> It is important for there to be a change in culture to ensure that government are seen as the driving force for mainstreaming these issues and therefore government practitioners should engage at every opportunity.</li> </ul>
Practitioner tips	
<b>Use of ICTS</b>	<ul style="list-style-type: none"> <li>• <b>Explosive growth in use of Information and Communication Technology,</b> notably mobile phones, is opening up new forms of engagement between citizens, state and the private sector (and new forms of monitoring and evaluation).</li> </ul>
<b>South-South cooperation</b>	<ul style="list-style-type: none"> <li>• <b>There should be a strong emphasis on networks and partnerships</b> especially South-South cooperation to support tool and lessons sharing (Choi, Korea).</li> </ul>
Toolkit	
<b>Existing tools &amp; gaps</b>	<ul style="list-style-type: none"> <li>• <i>[Practitioners to identify existing tools that are relevant and gaps in existing tools, where new tools might be needed]</i></li> </ul>
<b>Checklists</b>	<ul style="list-style-type: none"> <li>• <b>Checklists for brokering partnerships or establishing networks</b> (to be prepared)</li> </ul>
Case studies	
<b>Southern Africa</b>	<ul style="list-style-type: none"> <li>• Partnerships with national hydro-meteorological agencies.</li> </ul>
<b>Kenya</b>	<ul style="list-style-type: none"> <li>• Community of Practice for DRR and CCA practitioners.</li> </ul>
<b>Solomon Islands</b>	<ul style="list-style-type: none"> <li>• GIS user group to identify mapping needs for DRR and CCA and increase uptake.</li> </ul>

# Case studies: Stakeholders

## Government

- **Mainstreaming Action Plans in Mozambique, Zimbabwe and Malawi.** As part of the MADRID initiative, during the fifth National Leader's Forum, key government practitioners from these countries developed mainstreaming Action Plans to guide mainstreaming and risk informed development. These identify responsibilities, funding, timelines and actions for mainstreaming (MADRID, NLF).
- **Mainstreaming Baselines in Solomon Islands, Vanuatu, Tonga and Fiji.** As part of the Pacific Risk Resilience Programme, mainstreaming (or Risk Governance) baselines were prepared for each country against the nine risk governance building blocks for mainstreaming. These baselines have been used to identify priority entry points and to map annual progress.

## Civil society

### Community and NGO

- **Civil society involvement in Yokohama, Japan.** An earthquake in 2011 highlighted the importance of critical local knowledge (particularly of senior citizens) and engagement. Increasingly, local government has been drawing upon this local knowledge and understanding to inform development planning, implementation (e.g. the Yokohama Green Up Plan), monitoring and evaluation (Naomi Tabito, Volunteer, Japan).
- **Local protection committees (CPCs) in Tonga.** These were established to improve the participation of all members of a community, particularly those who are most vulnerable in development and recovery processes. These enable governments to better understand the root causes of vulnerabilities by improving participation and information sharing. A direct reporting line from the CPCs to the Ministry of Internal Affairs (MIA) has been established, which will allow MIA to use this community information to inform policy directives and to direct funding from government and NGOs. The development of the CPCs was a pilot for the region that leveraged off a community need (following Tropical Cyclone Ian), however thorough monitoring, evaluation and reflection has been undertaken before the model is rolled out more broadly (Hayes, UNDP PRRP, Fiji).
- **Need to empower flood prone communities in Zimbabwe as an important entry point for mainstreaming.** The floods in 2000 (in addition to a general increase in severe weather hazards) drove Zimbabwe to consider mainstreaming. It felt important to develop community-based risk management training, manuals and plans for communities using a multi-sectoral approach coordinated by the Department of Civil Protection (Sibanda, Government of Zimbabwe, MADRID).

### Economically and socially vulnerable or marginalized groups

- **Incorporating gender concerns in the formulation of the DRR-CCA framework in Indonesia.** Through the ICRMP, UNDP is helping the government incorporate gender concerns into the new DRR-CCA framework and associated policies

through gender reviews and participation of the Ministry of Women's Affairs in the DRR-CCA platform. UNDP is also supporting the Government to improve disaster and climate risk assessments by developing guidelines for gender analysis along with collecting gender disaggregated data (ICRMP, 2015).

- **A participatory study on differentiated impacts on men and women in Uganda.** A study on “better understanding men and women’s vulnerability to disaster and climate risk in Uganda” was aimed at characterizing the differentiated vulnerabilities of women and men to climate and disaster risks, their coping mechanisms in the face of disasters, and their role and participation in disaster risk management. The findings and recommendations have informed finalization of the Resilience and DRM Strategic Framework and Investment Programme (for operationalizing the National Development Plan 2015-2020) (ICRMP, UNDP).
- **Enhancing awareness of addressing gender concerns in DRR-CCA policies and programs in Nepal.** In Nepal, UNDP is enhancing the understanding and awareness of the importance of addressing gender concerns in DRR-CCA policies and programs through training and conducting gender analyses within climate risk assessments. This helps better understand the gender-related impacts of climate change in order to develop appropriate DRR and CCA solutions to address the identified gender related vulnerabilities (ICRMP, 2015).
- **Youths as agents of change in Africa.** Young people are also seen as key advocates for CCA, and in Lesotho for example, AAP launched an innovative campaign called Youth Climate Change Ambassadors to bring the message of adaptation to communities and local governments through drama, poetry and song (AAP, 2013).

#### The Media

- **Media capacity building in Africa.** A total of 448 journalist from 20 countries were trained to report on climate change and environmental issues accurately, objectively and persuasively. As a result, Africa’s print media, radio and television broadcasts have been inundated with features and new stories about climate adaptation (AAP, 2013).

#### Private sector

- **Increasing collaboration between the private and public sectors in the agriculture sector in Fiji.** The devastating effects of Tropical Cyclone Winston on the Agriculture Sector (in February 2016) highlighted the need for more collaboration between the private and public sectors during and before disasters. Though the Ministry of Agriculture took a commanding lead directly after the cyclone, the gaps in communicating technical advice to those most affected were evident. To overcome this shortcoming, the Ministry together with support from the UNDP, via PRRP engaged private sector networking providers (Digicel and Vodafone Fiji) to send out a series of SMS Alerts to a geographically-targeted population. This was aimed at avoiding food security issues by providing advice on when to start planting, what to plant, as well as animal husbandry. By promoting public-private partnerships, after cyclone Winston, the Ministry was better able to facilitate the engagement of the private sector through the Food Security and Livelihoods Cluster mechanism.

PRRP has also brokered partnerships with the private sector tourism industry, subnational government and the agriculture sector to develop food banks (linked to knowledge hubs, which share and demonstrate resilient agricultural techniques) to assist remote communities in the Yasawa Islands enhance their food security before disasters (Katerina Nabola, Senior CCA-DRM Project Officer, Ministry of Agriculture).

- **Public private partnership to support community-based Early Warning System in Nepal.** UNDP has helped establish Community-Based Early Warning System for “last mile” connectivity in a number of river basins (including downstream of a glacial lake) following a detailed assessment. UNDP, the Government of Nepal, Hydropower Companies and Nepal Telecom companies have joined efforts for installation and sustainable operation. In November 2014, a South-South exchange was conducted to Bhutan with 10 government officials from national and local level in order to learn about EWS installation, and to explore PPPs with hydropower companies (UNDP, ICRMP).
- **Private-public partnerships with telecommunications companies in Vanuatu.** PRRP brokered partnerships between government agencies (NDMO and PMO), government (DLA) and NGOs (Live and Learn) and the private sector (Digicel) to increase risk awareness, for example through mobile quizzes on climate change and to help communities prepare prior to El Nino. These partnerships were beneficial during cyclone Pam, when they were used to share safety messages and collect agriculture damage data immediately after the cyclone (Malcolm Dalesa, UNDP PRRP).

#### **Risk Informing private sector operations**

- **Risk informed business training in Nepal.** In collaboration with the Micro-Enterprise Development Programme (MEDEP), a training of trainers was conducted on: “Disaster Proofing Your Business.” Six Enterprise Development Facilitators (including seven women) were trained and these individuals then provided training “Start and Improve Your Business” training to a total of 40 entrepreneurs (including 26 women) (ICRMP, 2015).

#### **Partnerships and Networks**

- **Partnerships with National Hydrological and meteorological Agencies and the Southern Africa Regional Outlook Forum.** Partnerships will be fundamental to the role of the NMHS in mainstreaming (Blondin, WMO). For example, partnerships are needed at the international level (e.g., the International Network for Multi-Hazard Early Warning Systems) (In-MHEWS), regional and national level (e.g., establishing joint expert teams to assist specific projects and activities) (Dr Xu Tang, WMO). For example the Southern African Regional Outlook Form (SARCOF): i) promotes technical and scientific capacity in producing, disseminating and applying climate forecast information in weather sensitive sectors; ii) is a platform for interaction between users and the climate scientists to enhance the application of meteorology to the reduction of climate related risks to food security, water resources and health for sustainable development in the region; and iii) supports national meteorological services and climate services to prepare and disseminate weather and climate data and outlook/advice for different sectors (e.g. agriculture, WASH) (Siwela, SACD, LDF-5).

- **Formation of a Community of Practice for DRR and CCA practitioners in Kenya.** A community of practice website (<http://drrcca.ndma.go.ke/>) is under development and is awaiting official validation and launch to DRR/CCA stakeholders (UNDP, ICRMP).
- **Global Ecovillage Network.** The network addresses the spiritual/cultural/worldview dimensions, which they view as being the fourth dimension of sustainable development. This dimension they perceive to be fundamentally important, along with the need to create regional hubs, training centers and resource and service centers to support community-based development and the usage of permaculture and ecovillage design education training programs (Rob Wheeler, UN Representative, Global Ecovillage Network).
- **GIS user group established in Solomon Islands.** To increase communication with information providers and use of risk maps by development planners, a new GIS user group has been established (with support from PRRP) and includes key industries, private sector actors (utilities, water and power) and key ministries such as health, agriculture, mines/ geology (Reginald Reuben, Risk Resilient Development GIS Officer, MECDM).



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