Towards Climate Smart Disaster Risk Reduction in Asia

2 The Process of the Climate Smart Disaster Risk Management Approach (CSDRM)
4 Key Issues in Addressing Climate Change Associated Loss and Damage in Asia
7 Forensic Investigations of Disasters in the Context of Climate Change Adaptation
8 Mainstreaming DRR into Climate Compatible Development: Easy to Say, Difficult to Do
10 CSDRM: Agenda for Action in Asia
12 On the Way to Sustainable Disaster Management: Tuning the Policy-Planning
14 A Preview Analysis of Disaster Risk Management through the CSDRM Approach in Odisha
15 Ecology-based Livelihood and DRR
16 Reducing Risk Faced by the Poor
17 SREX Utilization in Pakistan: Way Ahead
18 Impact of Climate Change on Livelihood: Challenges faced by Poor in Rural Areas

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The Process of the Climate Smart Disaster Risk Management Approach (CSDRM)

Evidence from across Africa and Asia indicates that shifting seasonal patterns and high intensity extreme events are already eroding community and household resilience and making them more vulnerable to external shocks. Investing in integrated and flexible institutional and policy frameworks is a first step towards creating a policy environment that can build resilience to climate and disaster risks. If organizations, policies and practices take climate change concerns into account, development interventions and disaster risk management will become more effective in reducing poverty and vulnerability to disasters. This approach is unique as it provides policy makers and practitioners with a means to identify the processes needed to build resilience to climate and disaster risks. The three pillars of the approach (Figure 1) recognise that dynamic sets of risks emerge from physical, environmental, economic, political and social sources, and that multiple and often simultaneous shocks and stressors are part of the lived reality for many communities and households. The approach helps to:

1. Evaluate which existing tools and frameworks in Disaster Risk Management (DRM), Climate Change Adaptation (CCA) and development are right for particular programmes, policies and projects.
2. Develop the ability to identify and form strategic partnerships in a multi-sectoral working environment.
3. Reflect, review and evaluate progress through concrete indicators.
4. Establish that the programme/policy/project is supporting the realisation of climate smart and disaster-proof sustainable development.
5. Think through the implications of climate and disaster risks on each step of the project management cycle.

The following is the recommended process for applying the Climate Smart Disaster Risk Management (CSDRM) approach:

- **Step 1 and 2: ‘Where are we now?’** This stage is taken before you start. It involves using action points and guiding questions to assess and reflect on your organisation’s capacities. Indicators are then used to review existing programmes or policies or to plan for new ones.
- **Steps 3 and 4: ‘Where do we want to be?’, ‘What do we need to do differently?’** This stage, ‘where do we want to be’, or ‘what do we need to do differently?’, involves identifying potential entry points to apply the CSDRM approach, map out integration pathways, develop action plans and to select indicators to measure progress.
- **Step 5: The CSDRM Journey – ‘Are we moving towards integration?’**

Each pathway links the action points within the three CSDRM pillars and as the actions are inter-related, they need to be taken together.

This stage involves monitoring and reviewing the progress and understanding the internal and external factors that enable or constrain integration efforts. Doing so helps to identify new opportunities and/or corrective actions.

- **Step 6: Looking Back – ‘What has changed, why and how?’**

This is an important focus of the approach and involves looking at the progress made, evaluating it and reflecting on what has worked (or not) and what you want to change.

The process for planning a new programme or policy, and to assess or monitor existing programmes or policies, involves identifying an entry point through a self-assessment exercise. The entry point (usually the actions which are the organisation’s or programme’s weakest or strongest points) determines the integration pathway for achieving CSDRM, in doing so effectively answering the ‘where are we now’ question. Each pathway links the action points within the three CSDRM pillars and as the actions are inter-related, they need to be taken together. Each action point has process-based indicators to help identify key processes that may facilitate or contribute to an enabling environment for undertaking them.

Reference:
Strengthening Climate Resilience, Brighton, IDS
Each pathway links the action points within the three CSDRM pillars and as the actions are inter-related, they need to be taken together. Figure 1 sets out the overall CSDRM approach with its three core pillars. Each puzzle piece consists of an action point with key indicators. Integrated pathways can be charted by choosing any of the pieces as an entry point and following the corresponding sequence of puzzle pieces.

- Indrani Phukan, Programme Coordinator, Climate Change in Intercoperation Social Development India.
SUMMARY

Key Issues in Addressing Climate Change-Associated Loss and Damage in Asia

The following sets out some of the key issues with addressing climate change-associated loss and damage. These issues have emerged from the field in Asia. The list presented is neither exhaustive nor systematic. Rather, it is suggestive. This discussion note gives an operative and bottom-up view for the United Nations Framework Convention on Climate Change’s (UNFCCC) process of addressing loss and damage at the global level. The aim is also to help frame the discussion for the Asian context. This note was presented at the UNFCCC’s expert meeting on a range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather and slow onset events on August 27 - 29, 2012 at Bangkok, Thailand.

The discussion note draws the following issues from the questions raised and discussions held during the launch of the findings in the Intergovernmental Panel on Climate Change (IPCC) Special Report on "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX). The launch took place at the Regional Outreach Meeting ‘Managing the Risks of Climate Extremes and Disasters in Asia - What can we learn from the IPCC Special Report?’ in New Delhi on 2-3 May 2012, organised by the Climate Change and Development Knowledge Network (CDKN), and in Islamabad on June 26-27, 2012, organised by LEAD Pakistan and the National Disaster Management Authority, Pakistan. The participants at these two events ranged from a representation of UN agencies to small local NGOs, and from national authorities to research scientists and leading civil society organizations. Several key issues from these questions and discussions have been captured and turned into agenda for action. These are available from IPCC SREX resources on the CDKN website. This discussion note does not capture the issues already covered in the above two events or ways to explore them in terms of approaches to loss and damage. However, it draws from the All India Disaster Mitigation Institute’s (AIDMI) work in 37 cities and 42 districts in India to reduce risks faced by the poor in communities. The sources of this note are many and address multiple levels of work.

1. Dams and Irrigation Systems: More thinking is needed on developing approaches to address loss and damages caused by floods to dams and irrigation systems in Asia. For example, the Narmada dam in Gujarat, India, is a life-line for communities during droughts. The dam also offers irrigation water for agriculture. However, the method of assessing the likely loss or damage to dams and irrigation systems from climate change-related floods or droughts has yet to be developed. For arid areas, as found by the Swiss Development Corporation’s work in India’s arid areas under its Global Programme on Climate Change, one of the first hurdles to doing so is the lack of local and authentic data, especially on weather and seasonal variations. Similarly, for areas where there are no big dams or irrigation systems, but are instead dominated by huge river systems, such as parts of the Brahmaputra in Assam, India, and parts of the Sindhu in Pakistan, ways must be found to assess...
losses caused by floods and droughts. The National Disaster Management Authority in Pakistan has a large amount of loss and damage experience due to the recent floods in 2010 that covered almost two-thirds of the country. This experience can be further used to shape the loss and damage assessment tools and knowledge. Similar river systems and areas exist in Thailand, several islands of Indonesia, and in the Mekong region. Recent scoping activities for urban sanitation in small cities in Bangladesh, conducted by SNV and IRC of the Netherlands, suggest that new investments in the Millennium Development Goals should not be made without finding ways to assess possible climate change risk-related loss and damage.

2. Excluded Communities: A special care needs to be taken to address losses faced by excluded and disadvantage communities such as the Dalits in India and the Rohingya in Myanmar. Almost all societies in Asia leave out disadvantaged communities from its mainstream of development. This exclusion is more pronounced in disaster-related relief and rehabilitation. The exclusion of children from the discussion is even more striking; it has long-term implications not only for loss and damage assessments, but also on the measures taken to carry out an accurate recovery. The ongoing work of Save the Children in Bihar and Odisha is addressing such exclusion and is finding ways to make children more central to assessments of loss and damage from disasters, such as floods. More thinking and documentation is needed in Asia to find out who is likely to be excluded from the assessment of loss and damage after a climate change related event. Over the last six years some basic work on this issue has been done in India by Nari Gunjan, a member of Dalit Watch with the support of CordAid. A lot can be drawn from similar initiatives in Asia.

3. Resilience of Livelihoods: AIDMI’s work on enhancing the resilience of livelihoods of coastal communities along the Odisha coastline in India points to the challenge of negotiating through the overlap of disaster risk and climate risk at the local level. Where does one risk end and another start? Where do the two risks interact? Where do they interplay to influence the other, if at all? How does one understand the impact of two risks at the local level on the livelihoods of the people? The discussion with Terry Cannon of the Institute of Development Studies (IDS) and Indrani Phukan of Intercooperation India during the launch of AIDMI’s work programme, highlighted that the most important and challenging issue of addressing loss and damage is restoring and protecting the livelihoods of the poor. Livelihoods affect work and lives, the domestic and local economy, and the use of natural resources. The livelihoods of the poor contribute to the economic growth and shape the GDP but are never accounted for in official data—especially the losses suffered by landless and casual labour to their livelihoods.

4. Risk Pooling and Transfer: AIDMI’s ongoing work to demand for universal insurance coverage of all the poor affected by disasters has pointed to several loss assessment and damage estimation challenges at the national and community level. How do we measure the losses suffered by 80% of the workforce, most of which are in the informal sector? Can we equate the loss of US$100 to a salaried government employee in India with the loss of US$ 100 to a vegetable vendor in the informal sector of the economy in Nepal? The insurance sector is not prepared with tools or teams or systems to address such losses. Some pilot programs are being launched in Asia; the most recent one was launched by SWAD and CYSD with the support of Concern Worldwide under its ECHO programme in Odisha, India. It needs to promote community-based adaptation principles and develop; adopt and test tools; and techniques for adaptation.
focus on using existing insurance companies to develop new products for the poor is one way to go ahead. The meeting at the launch of the SREX findings in Pakistan discussed ways to provide universal insurance coverage for all possible flood victims in Pakistan. The recent ECHO support to key international NGOs for using cash transfers in flood relief opened new doors for assessing loss and damage, and offered efficient financial relief to communities. The discussion widened the need for data.

5. South-South Knowledge and Expertise Building: There is important work being done on assessing the losses from glacial retreat, mitigating drought and arid conditions, and loss of biodiversity. Some initial work is also being done by Partners for Resilience in Indonesia, the Philippines and India with the support of Wetlands International and other organisations to develop what is being called Eco-Rights. There is a lot of scope for South-South exchanges on developing the loss and damage assessment tools and building knowledge and expertise. Let the knowledge on losses be generated where the losses occur, was argued during the South-South Community Based Disaster Risk Reduction Academy consolidation meeting in Bangkok on August 6, 2012. The steering group participants came from India, Indonesia, the Philippines and Thailand and formed a work plan for developing methods and tools at community level in the coming three years in Asia. Focus on loss and damage can easily be put on the agenda of such initiatives in Asia. The SREX launch of its findings in Delhi concluded with looking for ways to track the use of the findings across hazards, locations, and institutions to better develop future actions. However, such South-South initiatives remain under-resourced. The Special Unit for South-South Cooperation in the UNDP has nonetheless taken concrete steps ahead in India, Indonesia, and Philippines in past three years. Loss and damage must be tracked not only to create better estimates, but also to find out how the tools have performed.

It is hoped that this note helps in framing the discussion on loss and damage. The above five points are indicative of the nature and extent of the issues. The regional priorities will change from South Asia to South East Asia to Far East and Middle East Asia. What may be a good first next step is to initiate a scoping study across Asia (or in selected case study countries such as India, Bangladesh or Indonesia) on the wide range of issues faced so far. A beginning is provided by two notes, “Concluding Remarks on IPCC SREX: Use, Use, Use!” and “Way Ahead for SREX Utilization in Pakistan”. Both are available on the CDKN website www.cdkn.org. This UNFCCC Regional Expert Meeting on a range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events, is a concrete step in the right direction.

– Mihir R. Bhatt

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**Environmental Extremes:**

**Disaster Risk Management - Addressing Climate Change**

This publication addresses climate change and disaster management issues in South Asia, focusing particularly on India. It builds on the theme chosen by the National Institute of Disaster Management (NIDM) for World environment day, “Safeguard the Environment for Disaster Risk Reduction,” reflecting the pressing need for arresting environmental degradation and improving ecosystem and natural resource management to achieve disaster risk reduction and adaptation to climate risks. It is intended to be used as a reference by local policy makers and planners, and in general by people who are working on the challenges, issues and solutions for integrating climate change adaptation and disaster risk management.

For more information:

http://nidm.gov.in/PDF/Environmental%20Extreme.pdf

Author(s): Anil K. Gupta; Sreeja S. Nair

Source(s): National Institute of Disaster Management (NIDM), MHA
Forensic Investigations of Disasters in the Context of Climate Change Adaptation

The practical domains of disaster risk management and climate change adaptation and their related scientific communities, have been living in separate worlds. Now they are steadily converging and there are significant opportunities for mutual learning and benefit. What can the theorists and practitioners of disaster risk reduction learn from climate change adaptation? The recent Special Report of the IPCC ("Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation", commonly also known as the SREX Report) was largely written from a climate change perspective. It is time to turn the tables and reap some benefits for disaster risk reduction.

Such considerations may help to address some of the major shortcomings of disaster risk management. For the sad truth is that in spite of much longer experience, (anthropogenic climate change is a relatively new phenomenon), and in spite of substantial advances in the scientific understanding of extreme natural events, (a lot more is known about the magnitude, frequency, spatial distribution, and potential impacts of natural extremes), disaster losses continue to increase in both developing and developed countries. This growth in losses is also occurring in the face of much improved forecasts and warnings and despite the theoretical availability of much improved infrastructure materials and designs.

There are two important differences in the perception of climate change and natural hazards, and these strongly influence the policy approach. First climate change and the impacts of extreme weather events are commonly thought of as unique and local events. Floods, droughts, earthquakes, volcanic eruptions and tsunamis seem to occur as independent events in a haphazard distribution. They are local. On the other hand climate change is understood to be a global phenomenon. Greenhouse gas emissions from human activities are changing the global atmosphere and climate system. Second, climate change and the impacts of extreme weather events are seen as being caused by human activity, whereas the disasters associated with floods, droughts, earthquakes and the like are often thought of as "natural" - or at least that is what they are commonly called in the media.

Both of these distinctions are misleading. So-called "natural" disasters are just as much the result of human choices and decisions as the impacts of climate change. And the human choices involved although apparently local and national are themselves interconnected through global economic and technical processes. However little research has been carried out in a truly integrated fashion on these interconnections which may explain a lot more about the root causes of disasters than we presently understand.

Climate change and its impacts are understood to be caused by human choices and activities and so it stands in a different policy realm. Climate change is classified as "a common but differentiated responsibility". In other words all of humanity shares in the responsibility. On the other hand the failure to see the human causes behind "natural disasters” has resulted in their treatment as a matter of "common human concern". There is a wide gulf politically and ethically between "responsibility" and "concern".

Recognition of these circumstances gives more urgency to the convergence of disaster risk reduction and climate change adaptation. Two of the activities underway to help achieve this are a new research programme and a review of policy at the international and national levels.

The policy initiative concerns the revision of the Hyogo Framework for Action 2005-2015 to build the resilience of nations and communities to disasters. The Framework at the international level expires in 2015 and is now undergoing preparatory evaluations for its renewal and revision.

In an effort to support this and related policy processes, research is being developed under the title of "Forensic Investigations of Disasters”. The research template and methodologies can be found at www.irdinternational.org.

Four approaches are suggested. These are: critical cause analysis, meta-analysis, longitudinal analysis, and scenarios of disasters. In the pilot phase of this research the development of "narratives" is being undertaken guided by a comprehensive list of questions which are to be found in the above report. The aim of this research is to promote a more searching and integrated examination of the root causes of disasters. These root causes are found both locally and internationally and are connected around the world by causes and consequences which are not well understood. The search for understandings of this epidemiology is part of the aspirations of forensic investigations.

Ian Burton
Co-chair (with Tony Oliver Smith) of the Working Group on Forensic Investigations of Disasters.
Mainstreaming DRR into Climate Compatible Development: Easy to Say, Difficult to Do

Disasters cost lives and livelihoods, destroy homes and stretch government resources. The negative impact on development is obvious to those affected.

A recent report from the Climate and Development Knowledge Network (CDKN) has highlighted that tackling disasters is fundamentally a development issue. Economic exposure to disasters is increasing faster than per capita GDP and the impacts of climate change on the severity and frequency of hazards will exacerbate this trend in future years (Mitchell et al, 2012). However, economic vulnerability is more pronounced in certain countries and regions. China and countries in South Asia account for more than 49% of global annual losses since the 1970s (UNISDR, 2009). Those with economic 'assets' concentrated in highly vulnerable areas are particularly at risk. The fact that disasters are putting economic development at risk, and that climate change will further accentuate this risk, suggests that a joined-up approach is needed.

Mainstreaming adaptation to climate change and disaster risk reduction (DRR) within development policies and plans is at the heart of what CDKN is trying to achieve. However, while conceptually this holistic approach is easy to digest, there are many challenges to implementation.

Firstly, the communities of 'development', 'climate change' and 'disasters' still work in relative isolation. In Government, there are separate ministries and departments each of which are developing their own plans and policies. Civil society, donors and academia encourage this by identifying themselves within one or other of these 'sectors' and talking only to their counterparts in government.

There are some exceptions. The IPCC’s "Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)" gave welcome new scientific validity from climate scientists on the need for DRR. It also got a conversation started between policy makers, scientists and NGOs from across the climate change and DRR ‘divide’ (see below for an example of this).

Secondly, attention on disasters by Prime Ministers, Planning Commissions, Ministries of Finance and sectoral ministries tends to peak immediately following a disaster, but quickly loses momentum. Ownership from the most ‘powerful’ parts of government is needed before DRR and climate change adaptation is seen as an economic issue.

Risk assessments are a crucial first step for governments and stakeholders to assess and characterise the hazard, the level of risk exposure, and vulnerability. This information is often available but is not always accessible to governments or presented in the most relevant fashion.

Climate change is set to have an impact on every aspect of humanitarian and development work. It is therefore critical that those engaged in managing disaster risk mainstream climate change adaptation.

Beyond greater awareness, new tools and instruments are needed to achieve 'mainstreaming'. A new research programme which CDKN and START are supporting in South Asia is being developed to test many of these. For example, the NGO Intercooperation, together with the All India Disaster Mitigation Institute and the Institute of Development Studies, UK, is looking at the institutional barriers and opportunities for integrating DRR and climate change adaptation into development at the local, state and national levels in India.
The next step is to integrate this risk within strategies, plans, regulations etc. For example, CDKN is supporting the Government of Punjab, Pakistan, to combine DRR with climate change adaptation and low carbon growth concerns in housing and infrastructure guidelines for rural hazard prone areas.

Financing is crucial. There are many different options for integrating DRR into fiscal policy and budget planning. CDKN is working with the NDMA Pakistan to design a risk insurance scheme for vulnerable communities which will help to speed up recovery, restore livelihoods and ensure that scarce government funds are well used. In reality a combination of approaches are needed to finance different aspects of DRR and recovery, but they should be integrated within the government's overall economic plan for development.

'Mainstreaming’ needs to become a redundant term. This will happen when governments and stakeholders understand how climate change, disasters and development are intimately linked and solutions for tackling all three holistically are designed, tested and applied. – Ali T. Sheikh, CEO, LEAD Pakistan and Asia Director, Climate Development Knowledge Network (CDKN);

Elizabeth Colebourn, Project Manager, CDKN; and

Shizza Khan, Young Professional Officer, LEAD Pakistan

**CASE STUDY**

IPCC SREX: Getting the Conversation Started in Pakistan

In late June 2012, a diverse group of politicians, officials and experts met in Islamabad, Pakistan to discuss what the IPCC’s "Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)" could teach Pakistan about managing disasters.

The meeting was unique in that it was jointly hosted by the National Disaster Management Authority and Ministry of Climate Change in Pakistan. The Minister of Climate Change, Rana Farooq Saeed Khan, welcomed lead authors of the IPCC SREX from across Asia who introduced the main findings and implications of the report to participants from across the policy-making, NGO and academic worlds. The event was the brainchild of LEAD Pakistan and TERI in India who both recognised that India, Pakistan and all countries in the region are struggling with common challenges, and that learning from each other is the first step to collaborating on solutions.

The IPCC scored an immediate early success by getting this conversation started. The meeting bridged the gap between the theoretical and the practical, and the national and the regional. Crucially the participants' work spanned across the disaster management, climate change and development areas.

The impact of disasters is something that few Pakistanis are exempt from. The devastating 2010 and 2011 floods, and the now annual threat of flooding, are affecting lives, the economy and development in the country. The 2010 floods killed nearly 2,000 people and destroyed 10,000 schools, 2 million homes, and hundreds of bridges, roads, and electricity pylons.

Pakistan is therefore well placed to lead on this issue, and in particular, to stress the need for an integrated approach to tackle disasters and climate change as part of an overall development strategy.

The meeting led to the establishment of a Regional Working Group for the Utilisation of the SREX which involved many of the experts and policy-makers who participated in the Pakistan meeting. The group has developed a briefing note outlining the way ahead and hopes to reconvene at the upcoming Asian Ministerial Conference on DRR in Indonesia in October where a side-event will look at how to use the findings of the SREX at the local level.

These steps show that while the IPCC may have got the conversation started, it is those that are ultimately most affected by disasters who are taking the agenda forward and turning theory into action.

**References:**


For more information, please visit www.cdkn.org, www.lead.org.pk or e-mail atsheikh@lead.org.pk; elizabeth.colebourn@cdkn.org and skhan@lead.org.pk

November 2012 southasiadisasters.net
CSDRM: Agenda for Action in Asia

The Intergovernmental Panel on Climate Change’s (IPCC) ‘Special Report on Managing the Risk of Extreme Events and Disasters to Advance Climate Change Adaptation’ (SREX) presented a stark message. Greater concentrations of atmospheric greenhouse gases will lead to ever more severe extreme weather and climate events. In South Asia, SREX found that the hottest day in the last two decades would happen approximately every 2 years by 2050 under the more pessimistic emissions scenario, whereas it would happen approximately every 4 years under more optimistic scenarios. A similar pattern can be seen for extreme rainfall (for more information see CDKN SREX Asia regional summary: www.cdkn.org/srex).

As a response to changing disaster risks and growing disaster-inflicted economic and livelihood losses, climate-smart disaster risk management (CSDRM) has three key facets: (i) make sure strategies to manage risk takes account of the shifting severity and frequency of weather and climate extremes, (ii) remember that disasters are primarily caused by processes that lead vulnerable people and assets to be in locations which are exposed to hazards and tailor approaches accordingly, and (iii) work with others to reduce greenhouse gas emissions. Without adopting CSDRM, managing disaster risk will be much tougher in the future.

While the focus on advancing CSDRM should be at the national and community levels, the international policy architecture does not currently provide a helping hand. The Millennium Development Goals do not highlight disasters, the United Nations Framework Convention on Climate Change thinks about disasters but worries about the distinction between climate variability and climate change-related triggers, and the Hyogo Framework for Action 2005-2015 greatly underplays the climate-related dimensions of disaster risk. Fortunately, disaster risk management has been prominent on the international policy agenda in 2012. It was featured at the G20, Rio+20, the Summit of the Americas, and at the post-Kyoto Protocol climate change negotiations, and is becoming voiced as a genuine concern for many governments. Further encouragement can be drawn from a rare alignment of negotiation processes to agree on new international policies in 2015. All these developments offer unique
opportunities to generate a rich policy environment for CSDRM and associated financial flows, these being:

- The debate is moving forward on what will follow the Millennium Development Goals (MDGs) when they expire in 2015. There is an opportunity to advocate for a goal or cross-cutting set of targets that explicitly seek to reduce disaster risk and tackle climate change.
- Sustainable Development Goals (SDGs) have been put forward in the run-up to Rio+20 and will be further discussed over the coming years. Disaster issues are already part of these discussions.
- The ‘Durban Platform’, agreed on in December 2011, commits countries to negotiate a new climate change treaty by 2015, one with ‘legal force’. The negotiations on this treaty already includes measures to reduce and transfer disaster risk and consider how disaster risk management and climate change adaptation fit together.
- The Hyogo Framework for Action 2005-2015 expires in 2015 and a process is already in place to negotiate a new global agreement on disaster risk reduction. Greater focus on climate change will have to be a significant component of any new agreement.

The challenge for those working on CSDRM or disaster risk management more broadly is to ensure that tackling disasters is a key objective in each of these processes and that there is coherence between them in what they say. Achieving a positive outcome, where policies are helping to save lives, protect livelihoods and reduce economic losses in a changing landscape of disaster risk, will require CSDRM practitioners to get engaged. Certainly the evidence base needs to be strengthened to show that CSDRM works, both in protecting advances in development and ecosystems - case studies, positive stories and good data will all support the case. Additionally, elected representatives and international organisations need to be reminded to put disaster risk management at the top of the policy agenda and to take these messages into international negotiations. I feel strongly that by working together, we can create a much more conducive international policy environment for reversing livelihood losses in the face of ever more severe and frequent hazard events (for more information, see Mitchell and Wilkinson (2012))

Dr. Tom Mitchell
Head of Climate Change, Overseas Development Institute and Thematic Leader - Climate Related Disaster Risk Management, Climate and Development Knowledge Network


### Lives and Livelihoods in Ahmedabad

In the last week of July 2012, Mr. Sibren Vegter, the All India Disaster Mitigation Institute's intern from the Netherlands, led and organised a photo exhibition called 'Lives and Livelihoods in Ahmedabad'. In several ways, the exhibition was unique.

The photos did not show the peoples’ tragedies and losses from the 2002 communal riots in Ahmedabad, Gujarat. Instead, they were about the steady recovery and the rebuilding of small-scale livelihoods and lives in Ahmedabad.

This photo exhibition was not organised in a photo gallery or a hall. It was held at the office where strategies for the initial response and the long-term recovery were devised, and among the very individuals who had planned and administered them.

Another unique feature of the exhibition was that the photos were taken from a foreign economist's perspective.

The three-day exhibition truly showed that proper recovery depends on individual enterprise, trust, and an unwavering hope that the future can be better.
The challenge we presently face is not being organised and keeping pace with changes in our climate system. Recalling my research during the 1980s-90s on water, drought and ecological challenges in Vindhyas and later in the regions of Uttarakhand, coastal Gujarat, Malwa and Chambal, for us the relationship between natural disasters and the environment has been quite well-known and recognised.

After leaving my university, in 2006 I joined the country’s pioneer institution in disaster management with many visions. But then frustrations clouded over them. I recall my seniors instructing me to accept ‘environment’ and ‘disaster’ as two entirely different subjects and not to ‘try to mix the two’. More to my surprise was that my own team-mates in a climate-resilient adaptation project regarded ‘climate-change’ as being entirely different from ‘environment’. It was a time when I had to maintain my persistence and hopes that the future will bring recognition of the relationship between these two concepts, and yes, now there is policy recognition and call for convergence due to there being more case studies, improved understanding, and better understanding of the ground situation.

The Intergovernmental Panel on Climate Change (IPCC) which was established by the UNEP and WMO, has along with the UNFCCC generated great awareness and renewed understanding of the between climate change, the environment and disaster management. Presently, not only in Europe or the Americas, but also in Asia and Africa, we are calling for ‘climate-smart disaster management’, ‘ecosystem-based approaches’ and the integration of climate change adaptation with disaster management plans and policies at the district, state and even village levels. The IPCC’s recent report ‘Managing Climate Extremes and Disasters in Asia: Lessons from the IPCC SREX Report’ now calls for more serious concern for sustainability in our development processes and for ensuring the safety of people, resources, infrastructure, and assets.

Internationally, there are initiatives for ‘greening disaster management’. They mainly consist of placing greater focus on environment-based disaster risk mitigation, protecting people, ecosystems, livelihoods and capacities, effective water sanitation and waste management during emergencies, post-disaster sustainable reconstruction, and green recovery mechanisms. In India, we have enacted the Environment (Protection) Act 1986 and followed this with several rules and amendments, but surprisingly we still cannot provide for environmental plans or action plans at the district or ground levels, which are actually the sites for implementing national/state policies and plans. I truly cannot help expressing my grief over the lack of (and not poor state) of environmental planning and governance frameworks.

India can be credited with developing further initiatives for building capacities in disaster management, starting with the launch of a week-long national course on ‘Environment Disasters’ in January 2009. This was organised by the National Institute of Disaster Management (NIDM). In 2007, the NIDM started a course integrating climate change and disaster management training, the first being held in Rajasthan. A great global
initiative, the Partnership of Environment and Disaster Risk Reduction (UN-PEDRR), involving the UNEP, WWF, UNDP, CADRI, ADPC, ProACT, UNU and other organizations, developed a training package on ‘EcoDRR’ and piloted it in Colombo, Sri Lanka, in 2011. The experiences of institutions working on the ground, such as the All India Disaster Mitigation Institute’s operations in earthquake and cyclone-hit areas, are important for linking communities with policy-makers and in helping with promoting community-based models.

Ecosystem-based Adaptation to climate change (eBA) and ecosystem-based DRR (ecoDRR) approaches are now key agenda items for most policy discussions and research programmes. However, formal planning frameworks and ground implementation of these approaches have yet to manifest in India. Thus legal frameworks and prioritizing finances for ecosystem-based, adaptation-centric and sustainable disaster management need to be enacted and mobilized. There are some positive steps being taken. The Climate and Development Knowledge Network is supporting Intercoperation India and AIDMI’s climate-smart disaster management projects in Odisha and Uttar Pradesh, a key objective being that these experiences can be turn into practical case studies.

A European Union project involving the Indo-German Environment Programme (GIZ-NIDM) is trying to learn from efforts to plan and integrate CCA and DRR at the state, district and village levels in Tamil Nadu and Andhra Pradesh. The eDRM-GIZ project with the NIDM in 2010-12, in addition to promoting training and knowledge resources on ecosystem-based disaster management, developed a way for interpreting environmental law frameworks to include DRR considerations.

It is September 17, 2012. I have written this message to pass on the lessons I have learned from being a member of a high panel on this subject. I conclude that there is a dire need for a policy environment, with a definite legal and planning framework, to achieve sustainable disaster management. Pilot projects and case studies will form the building blocks and provide guidance for strengthening the role of strategic mechanisms and tools. We must not forget Lord Buddha’s lessons for a ‘middle path’ and those from Mahatma Gandhi on ‘human need vs. greed’. Environmental adaptation and sustainability are not sprint races but are marathons which need to be approached with long-term vision and scientifically-sound strategies.

Please, no short-cuts when it comes to ecosystems, livelihoods and sustainability. ■

– Anil K. Gupta,
National Institute of Disaster Management,
New Delhi

EVENT

Yogyakarta Declaration on DRR in Asia and the Pacific 2012

A declaration endorsed by Heads of Government, Ministers, and Heads of Delegation of countries in Asia and the Pacific, as an outcome of the Fifth Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR), calling on disaster risk reduction (DRR) stakeholders to: (i) participate fully in the consultations leading to the post-2015 Development Agenda and the post-2015 DRR framework; (ii) integrate local level disaster risk reduction and climate change adaptation into national development planning; (iii) support local risk assessment and financing; (iv) strengthen local risk governance and partnership; (v) build local community resilience; (vi) identify accountability measures for more effective implementation of a post-2015 DRR framework, political commitment to deliver at all levels, awareness, education and public access to information; (vii) build and sustain capacities and legal mandates of national and local governments and the private sector to integrate DRR in land use planning and building disaster-resistant infrastructure; and (viii) implement cross-cutting issues, such as socio-economic vulnerability and exposure, gender, disability and age capacities and cultural diversity.

The participants resolved to incorporate the recommendations of this declaration into policies, strategies, and action plans of Government, as appropriate, and report their implementation at the Sixth AMCDRR in 2014. They also committed to call on international organizations, regional inter-governmental bodies and institutions, national organizations and civil society organizations and their networks to support and accelerate the implementation of the Hyogo Framework for Action, and to facilitate national multi-stakeholder consultations and dialogue in order to contribute to the process towards a post-2015 DRR framework and development agenda.

They invited the Indonesian National Agency for Disaster Management (BNPB), host of the Fifth AMCDRR, in coordination with UNISDR Asia Pacific Regional Office (UNISDR AP) and members of the IAP to carry the messages of the Yogyakarta Declaration on DRR to the Fourth Session of the Global Platform on DRR in May 2013 and beyond. ■ Source and for more detail: www.preventionweb.net/english/policies/v.php?id=29332&rid=4.
A Preview Analysis of Disaster Risk Management through the CSDRM Approach in Odisha

After the 1999 super-cyclone there has been increased acknowledgement of Odisha’s vulnerability to climate change-induced disasters. This has been followed by considerable investments from the Government of Odisha (GoO) in development policy initiatives which address poverty, resilience, and reduce the impacts of extreme weather events in the State. These programmes are being implemented across the State-District-Panchayat-community levels. Two such programmes are the Orissa State Disaster Management Authority (OSDMA), a disaster risk management focused government agency, and the Western Orissa Rural Livelihood Programme (WORLP), a poverty focused project under the Orissa Watershed Development Mission.

The institutional set-ups and policies of the two programmes have been analysed using the Climate Smart Disaster Risk Management (CSDRM) approach to assess gaps in disaster risk management. It assists in addressing lacunae in preparedness by identifying gaps in current practices and policies at the institutional level. Business-as-usual DRM will fail without a significant shift in how risk calculation and intervention design incorporate climate modeling and associated uncertainty.

The OSDMA contributes to making policies for the State and has an operational mandate to cover the management of disaster relief and reconstruction. It uses a pro-active approach to prepare, plan and tackle a range of disasters across the state. WORLP’s ‘Watershed Plus’ has a focus on poverty reduction through livelihoods support, watershed management, and responding to slow onset disasters. The OSDMA’s disaster management policy in Odisha covers most tenets of the CSDRM approach but makes little direct reference to issues of poverty reduction and their structural causes. The OSDMA concentrates on developing public awareness whilst WORLP focuses on empowerment and participation. In both the OSDMA and WORLP, rapid and slow onset disasters are institutionalised separately and therefore require an integrated vision. The analysis further reveals that neither the OSDMA nor WORLP are currently working with tools and methods for climate risk assessment. They suffer from gaps in knowledge as neither systematically assesses the effects of climate change on disaster risks. Consequently, they cannot tackle the vulnerability and exposure of people’s livelihoods and physical environment to changing risks. Both programmes target specific geographical areas and do not cover the state as a whole - the OSDMA is focused on the coastal communities and districts, while the WORLP only covers West Odisha.*

Overall, an analysis using the CSDRM approach can reveal strong points from different programmes. These can then be drawn together to form a more holistic and complementary response to disasters. The OSDMA and the WORLP programmes provide crucial lessons for adopting a CSDRM approach and will also assist Odisha with implementing its State Action Plan on Climate Change. They show that there is more than one route to CSDRM and that an integrated collaborative effort combining a range of existing institutions and programmes can be used to design a CSDRM approach. It is essential to incorporate climate change dimensions into existing disaster risk management frameworks as this would drive the scaling-up of efforts and promote real, constructive collaboration across the different sectors, institutions, and scales. They also demonstrate that institutional independence and proper institutional mandates are vital. Institutes need to be flexible and innovative when working with government so that they can obtain access to resources.

In India, progress is limited by not down-scaling and applying climate scenarios devised in national science institutes and knowledge hubs to the local context. Access to science and its implementation at the grass-roots level therefore needs to be significantly improved.

– Shazneen Cyrus Gazdar
Climate Change Specialist, Inter-cooperation Social Development India

CASE STUDY

Eliminating Water Disputes - Towards Sustainable Ecology-based Livelihood and DRR: Leh, Jammu & Kashmir, India Experience

Poor communities in topographically challenging places are particularly affected by disasters as their livelihoods depend heavily on natural resources and ecosystem services. Being poor they have no reserves of money or savings and thus need to carry out their livelihood activities daily to earn their source of living. Appropriate management of ecosystems can therefore play a critical role in reducing the vulnerability and enhancing the resilience of local communities, as healthy socio-ecological systems are better able to prevent, absorb and recover from disasters (PEDRR, December 2010).

Pheyang village, which is approximately 25,000 metres away from Leh, has a total population of 2700 people and the total number of houses is around 480. A canal with an approximate length of 400-500 metres which passes through Pheyang village and embanked 60 years ago, was severely damaged by the 2010 flash floods. Agriculture is the main income source of the farmers in the village and if they fail to get yields from their crops during the harvest seasons, they would be in extremely difficult conditions for they are poor and have no other alternative land. Other canals in the village and in other villages were also damaged. Broken Canal can Create water disputes during the disaster recovery. However, the farmers were ready to provide as much labour support as they could to repair the water canal. Disputes were avoided, the local ecosystem was supported as the water-table increased, and altogether 534 individuals benefited from the canal restoration.

Communities Supported and Impact

The canal restoration initiative was supported by the All India Disaster Mitigation Institute and was implemented locally by local partner CENSFOOD. It involved rebuilding the canal, directing the water, and conserving the farmland. This ecology-based community livelihood support approach helped small farmers and monks to harvest crops (wheat, grim and small millet are major crops) in the first post winter season. The community as well as local partners observed that due to this initiative the water-table of the area improved and existing sources of water recharged naturally. Households from downstream mohallas/neighborhoods also got

Participants of the Regional Conference on Water Disputes in South Asia, Haikou, China, May 22-23, 2012.
potable water nearby their houses. 534 farmers from the village including 108 monks were assisted in their economic recovery. They will receive water for the coming years and will be able to survive the tragedies of the 2010 cloudburst.

Overall the community gained significant long-term benefits. The canal reconstruction effort showed that rebuilding physical infrastructure can lead to enhanced quality of life and reduce future disaster risk. Opportunities for mainstreaming disaster risk reduction into development planning can arise in the construction phase following large-scale disaster events (UNDP, 2004).

Avoid Water Disputes? Policy and Approaches:
The Hainan Institute for World Watch (HNIWW) in Hailou, China and the Centre for Sustainable Development (CFSD), Bangladesh, organised a regional seminar in Haikou, China on May 22-23, 2012. Arpita Chhatrapati from AIDMI was invited to present the case study ‘Eliminating Water Disputes-Towards Sustainable Ecology-based Livelihood and DRR: Leh, Jammu & Kashmir, India Experience’.

AIDMI learnt from the experience that a bottom-up water dispute management approach which involves local stakeholders through developing their capacity, understands vulnerability issues, and provides relevant factual information, is important. It should be linked with development and disaster recovery strategies to integrate them together. This approach can then be used to resolve water dispute problems constructively. ■

– Arpita Chhatrapati

Risk Transfer

Reducing Risk Faced by the Poor: Protection through Microinsurance

The poor are the most vulnerable to risks; the majority of them have to manage risks with their own means. Very few have access to formal insurance and depend on informal mechanisms to cope with shocks. During the last ten years, formal insurers have started targeting low-income markets. Recently new forms of micro-insurance have been developed which aim to mitigate the risk of natural disasters for the poor. Humanitarian and government agencies are looking at these new models with growing interest, especially as climate change may pose new challenges by further eroding actual coping mechanisms.

A growing body of experiences and knowledge, as emphasized by the Hyogo Framework for Action 2005-2015 (UNISDR, 2005), points to the effectiveness of long-term disaster management measures, such as early warning systems, social protection programmes, economic policies and market solutions. However, the work at the ground level is not in line with what is being planned. There are several aspects to this. Humanitarian acts are packed into a ‘project’ with a clear-cut beginning and end. Humanitarian actors initially provide relief and leave relief provision to someone else. Humanitarian assistance models are creating a dependency on external aid.

Risks are not easy to reduce. Risks faced by the poor among disaster victims are even more difficult to reduce. Insurance policies are being worked out and are to be piloted in Odisha, India. Concern Worldwide India, Odisha, organized a workshop on ‘Lessons for Reducing Risk of the Poor: Protection through Micro-insurance’ on August 21, 2012 in Bhubaneswar, Odisha. This was supported by the DIPECHO project. Dipankar Datta of Concern Worldwide India launched the first batch of insurance policies for poor and vulnerable coastal communities.
LEAD Pakistan and the National Disaster Management Authority, Pakistan, held an IPCC-SREX (Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation) National Outreach Event in Islamabad on 27th June 2012. During the concluding session of the event, certain steps were agreed upon that would pave a way ahead for utilizing the SREX in Pakistan.

As a starting point a Regional Working Group for the Utilization of the SREX was launched at Islamabad. With its first meeting held on June 26-27, 2012 and chaired by Dr. Pachauri, the group’s initial focus was on water, especially droughts and floods. A follow-up meeting is expected to coincide with other SREX outreach events in the South Asian Region.

To develop a national plan for mainstreaming, it was decided to turn the 2010 flood experience of Pakistan into a report similar to SREX with the help of the climate change community. This proposed report would be scientific in nature but policy-oriented in its use and would be widely circulated.

One of the important steps was the demand for a launch of a SAARC Climate Change Centre. The Centre would focus on finding better and effective adaptation measures which can be undertaken by the authorities and the citizens in South Asia. To further the idea of South Asian collaboration, it was decided that a joint Pakistan-India National Risk Transfer Programme would be launched as a pilot for the universal coverage of the poor from disaster risks.

As the SREX Report contains material and action items that must be communicated at many levels so that it can be effectively implemented, it was also determined to initiate a training module for local authorities at the district level and leading national civil society organizations in Pakistan.

The usefulness of the national outreach event would be significantly enhanced by the joint-production of a forward looking report that can be taken to the Government of Pakistan, the IPCC, and other key events at the global, regional and national levels.

– Ali T. Sheikh, CEO, LEAD Pakistan and Mihir R. Bhatt
Presently, climate change’s capacities to drive poverty and existing inequities, as well as its ability to undo many of the advancements made in community development, are well recognized internationally.¹

In 2011 the All India Disaster Mitigation Institute, with the support from CORDAID, initiated a study called ‘Impacts of Climate Change on Livelihoods: Challenges Faced by the Poor’. Its objective was to obtain community perspectives on whether climate change was occurring and if so, how it was affecting their livelihoods. The study took place in Madhubani, a district in Bihar which is frequently affected by floods. 165 families were randomly selected and interviewed.

The majority’s observations were that over the years rainfall levels in the villages had become increasingly volatile, at times being too much and at other times too little. The timings of the seasons were also wrong and they did not have the right duration or intensity. These observations are consistent with the Intergovernmental Panel on Climate Change’s description of the characteristics of climate change. They are also similar to the experiences of those living in other climate change-affected parts of India, such as Tamil Nadu and West Bengal.

To add further context to the study, a socio-economic survey of the villages was carried out. It was found that they reflected Bihar’s rural poverty trends, these being: the majority of the population lives below or just slightly above the poverty line, they typically lead agrarian livelihoods, education levels are extremely low, high debt levels are prevalent, and a large majority of the population migrates to urban areas or other states for work. It was also found that there

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**POVERTY REDUCTION**

**Impact of Climate Change on Livelihood: Challenges faced by Poor in Rural Areas**

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The poor communities have to be constantly consulted, kept informed and be involved throughout the entire process of developing and implementing response mechanisms.
The socio-economic background also reflects crucial points related to poverty, climate change and vulnerable conditions.

- The villagers tend to come from disadvantaged social positions. They are mostly uneducated and live in chronic poverty. Families are usually quite large.

- There is a near-total dependency on agricultural activities, especially agricultural wage labour, as the main source of income amongst the villagers.

- Owing to debt, unemployment and the need to find higher paying jobs, it is quite common for individuals to migrate out of the villages. It is invariably the males who leave their homes.

- Floods, fire and drought are the most common types of disasters experienced. In light of Madhubani’s physical geography, there is a high probability that fires arise from man-made rather than natural causes. Out of all the disasters, floods have the greatest impact on livelihoods.

- The degree of understanding about disasters, in particular its more technical aspects and how they arise is at an extremely low level amongst the villagers. Their resilience to disasters is also quite low, as due to a lack of education and finances.

- Changing climate patterns have affected community facilities and are a contributing factor to changes in income levels which, for most of the villagers surveyed, have either stayed at the same level or decreased. Other factors which have an impact on incomes are: changes in demand due to altering market conditions, the ability to recover from disasters, the non-availability of new land, and changes to livelihoods.

- The villagers have very poor access to outside assistance especially where preparing for disasters is concerned. Loans from private bodies and government are the main types of support received.

A few suggested measures are: improving market accessibility (such as by constructing better roads), increasing agricultural productivity by providing better farming technologies and seeds, and stabilising market prices.

Whichever the measure adopted, the fundamental principle which should guide their design is that the poor and vulnerable communities are not helpless individuals. Rather, they are agents of change and sources of innovative ideas which, if given the right type of stimulation and assistance, can drastically change their lives for the better. The poor must be empowered to help themselves.

– Hui-Chi Goh

and

Vishal Pathak

are a complex range of factors which already affect villagers’ incomes and livelihoods. These include: changes in market demand, changes in livelihood, the person’s inability to recover from the impacts of previous disasters, the unavailability of new land, increased competition from more participants in the industry, volatile agricultural commodity prices, limited access to markets, less consumer spending due to increased costs of living, and low productivity because of few resources and outdated technology.

Climate change can be expected to compound and exacerbate these difficulties, to the point where villagers are completely unable to carry out their livelihoods. In the study, some participants stated that the quality of their farmlands and water supplies had deteriorated, and there were a few who said that climate change had forced them to change their livelihoods.

To make livelihoods resilient to climate change and disasters, and to improve the respondents’ overall financial positions, the range of intervening factors involved suggests that a broad strategy comprising of a variety of measures is required. They should extend from small initiatives which can be implemented in households to ones which can be implemented at the state and national levels. Moreover, they should ensure social equity, access to information, continuous community participation, and empower vulnerable groups. Poor communities have to be constantly consulted, kept informed, and involved throughout the entire process of developing and implementing response mechanisms.

1 See eg. Intergovernmental Panel on Climate Change (2012), ‘Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation’ Available at: <https://www.ipcc-wg1.unibe.ch/>
Xavier Institute of Management, Bhubaneswar (XIMB), in association with Concern Worldwide, hosted the World Humanitarian Day on August 19, 2012. Organised by the Social Responsibility Cell (SRC) of XIMB, the theme for this year was ‘I was Here’. XIMB Director PT Joseph delivered the welcome address and the event was presided over by Mr. Dipankar Datta, Country Director, Concern Worldwide; Dr. Ambika Nanda from the UNDP; Prof. Asha Hans, Former Director of the School of Women’s Studies and President of Sansristi; Shri Mangala Mohanty, Indian Red Cross Society State Unit Secretary and Mr. Mihir Bhatt, All India Disaster Mitigation Institute (AIDMI), Ahmedabad. They discussed the challenges faced by the humanitarian workers in defending the humanitarian space in India. Mr. Mihir Bhatt demanded a systematic review of the humanitarian space in India to improve performance and learning.