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MEETING REPORT

Policy Roundtable

Strategic Country Risk Management - Focus on Natural Disasters and Climate Risk

11:00 am – 4:30 pm

Saturday, 13 November 2010

The Ashoke, Chanakya Puri, New Delhi

Content

1. Background and objectives

A key task of policymakers is to prepare and manage threats, risks and contingencies inherent to the state and society to promote security and stability. The conventional risk profile of countries, which includes aspects such as natural disasters, is now complicated by the emergence of climate change. Countries such as India, already buffeted by a range of natural disasters and climate variability, are now on the frontlines of climate change and having to contend with new risks as a result of their high-vulnerability.

Climate-related phenomena such as droughts, floods, cyclones, extreme weather events, forest fires, water shortages, disease, ill-health, agricultural productivity decline are already on policymakers radars but their increasing frequency and ferocity are presenting a new scale of challenge.

The consequences of such phenomena on human populations, weak infrastructure and vulnerable ecosystems can exacerbate food, water and physical insecurity. Further they can be 'threat multipliers' - triggers for social tensions, conflicts and resource wars. As climate science hardens and policymakers are faced with a compelling case for a risk-based approach to natural disasters and climate change, what measures should countries take to 'climate-proof' themselves and increase resilience? In particular, how can governments create more strategic risk management models at a country and state level to strengthen security and stability?

The insurance sector has taken a keen interest in this subject and Swiss Re, one of the leading re-insurance companies has been at the forefront of dialogue and partnership with governments to develop integrated risk management approaches. This Roundtable, organised by the Indian non-profit, Centre for Social Markets and Swiss Re, seeks to initiate a dialogue with Indian policymakers on approaches to country risk management incorporating natural disaster and climate risk. Case studies of best practice at the national level from around the world are used to further understanding.

The Roundtable sought to gain new insights into how the architecture of risk management works at the country level in India and to support efforts to make it more 'fit for purpose' in a riskier, more climate-constrained future. The result of this day-long exploration was intended as the first step of a creative, dialogue process leading to institutional innovation and increased effectiveness in mitigating India's natural disaster and climate risk.

2. Programme

Time	Activity
11.00 – 11.10	**Welcome** *Introduction to Roundtable objectives and format* Mr Michel Liès, Chief Marketing Officer and member of Executive Committee, Swiss Re., Switzerland and Ms Malini Mehra, Founder & Chief Executive (CSM)
11.10 – 11.40	**Opening remarks** **Mr Raj Singh** Chief Risk Officer and member of Executive Committee, Swiss Re, Switzerland **Prof N. Vinod Chandra Menon** Former Member, National Disaster Management Authority, Government of India
12.00 – 13.00	**Session I: *International best practice on country disaster and climate risk management*** Presentations followed by interactive discussion 1. *Survey of the Field*, Mr Reto Schnarwiler, Head, Public Sector, Swiss Re, Switzerland 2. *Case Study 1 - The Singapore Experience*, Ms Jeanette Kwek, Senior Strategist, Centre for Strategic Futures, Prime Minister's Office, Singapore 3. *Climate Risk - Towards an Integrated Approach*, Mr Nick Mabey, co-founder & Chief Executive, E3G (Third Generation Environmentalism), United Kingdom
13.00 – 14.00	*Lunch*
14.00 – 15.15	**Session II: *The Indian Context - current best practice in natural disaster and climate risk management*** Presentations followed by interactive discussion 1. Dr P.G. Dhar Chakrabarti, Executive Director, National Institute of Disaster Management; Director, SAARC Disaster Management Centre 2. Dr. Akhilesh Gupta, Coordinator of Climate Change Programme & Adviser/ Scientist-G at Department of Science & Technology, Government of India 3. Prof V. K. Sharma, Expert, Climate Change and Disaster Management, Indian Institute of Public Administration, New Delhi
15.15 – 15.30	*Coffee Break*
15.30 – 16.15	**Pulling it together - Promoting strategic country risk management in India: issues and challenges** *Concluding session drawing on Roundtable presentations and discussions* Chairs: Michel Liès (Swiss Re) and Malini Mehra (CSM)
16.15 – 16.30	**Next Steps and Close**

3. Summary of proceedings

Introduction

The Roundtable was opened by **Michel Liès**, Chief Marketing Officer and member of Executive Committee, Swiss Re, and **Malini Mehra**, founder and chief executive, CSM. They started the day by welcoming participants to the Roundtable and explaining their motivations for hosting the event. Swiss Re is one of the world's leading reinsurance companies with almost 150 years of experience in managing risk-taking for enterprise and social progress. Swiss Re identified climate change as an emerging risk issue almost 20 years ago and leads intellectual efforts in the field with more than 50 publications on risk management annually.

CSM is an Indian non-profit which has sought to energise the climate debate by bringing a positive, pro-active perspective and engaging business, government, municipalities and civil society in multi-stakeholder approaches to climate change. With this Roundtable, CSM seeks to bring the professional and policy communities from the fields of natural disaster risk, climate risk and broader security risk together for an exploration of an integrated and strategic approach to risk management for India.

Michel Liès opened the discussion by highlighting that losses due to natural catastrophes are increasing and thatclimate change will contribute to more severe storms, floods and droughts. Large amounts of economic losses stemming from disasters remain uninsured and fall back to governments. However, new risk transfer instruments are available to close the financing gap. To manage these challenges an integrated risk management approach is needed to take decisive actions. Given the magnitude of the challenge, no party can tackle this alone; public-private partnerships are required.

CSM emphasised the need for new approaches to identifying and managing multiple risks in India to ensure better integrated and ultimately more effective responses by the various professional communities involved. At present, the landscape was characterised more by detached silos than well-networked hives. This hindered beneficial outcomes for affected communities on the ground whose well-being must be a primary consideration.

Opening Remarks – Raj Singh

In his Opening Remarks, Swiss Re's Chief Risk Officer, **Raj Singh** noted the massive gap between economic and insured losses from natural disasters over the two decades from 1980 to 2009. Emerging markets in general were characterized by low insurance penetration and India had among the lowest rates of insurance - well behind China, Brazil, Malaysia, Thailand and others. Mr Singh noted that disasters place a significant burden on the public

sector. It is clear that prevention and mitigation efforts are a priority, but no country can fully insulate itself against extreme natural disasters.

As a result, un-insured losses from natural disasters must be borne by individuals, corporations and governments, both on national and sub-national levels. Government budgets are impacted by primary and secondary efforts. The primary effects include immediate expenses for emergency relief efforts, costs for rebuilding public infrastructure or loss of capital and durable goods. Secondary effects include reduced economic growth, lower tax and non-tax revenues, budget deficits, increased public debt and costs from refinancing, higher inflation or currency fluctuations.

Mr Singh argued that a systematic risk management approach for natural disasters is needed in which prevention and mitigation strategies must be the first priority to reduce economic losses. However, sovereign natural disaster management also includes the financial preparedness for the residual risk. Further, the deployment of public funds should be well balanced between prevention/mitigation and adaptation measures. Adaptation measures include ex-ante disaster financing instruments, such as reserve funds and insurance solutions.

Pre-financing of disaster losses helps countries lower their financial exposure, but the effective reduction and financing of catastrophic risks requires a combined response by both private and public sector players. Swiss Re has developed a comprehensive risk mapping system as part of its efforts to devise more strategic country risk management. An illustration of the former is the Global Risk Landscape that Swiss Re prepares annually with the World Economic Forum. At the national level, the UK's National Risk Register of Civil Emergencies was offered as an example.

Swiss Re has proposed that countries take a leaf out of the private sector and consider a Chief Risk Officer for the public sector. The objective of such a position would be the optimal allocation of resources for systematic risk identification, assessment, mitigation and adaptation. Examples of innovations in country risk management were cited from Canada, the Netherlands, the USA, Japan and more closer to home, Singapore. In Singapore, the government applies a Whole of Government approach to Integrated Risk Management, and also undertakes risk assessment & horizon scanning (national scenarios).

Opening Remarks – Prof N. Vinod Chandra Menon

The next set of Opening Remarks was provided by Professor Vinod Menon, former member of the National Disaster Management Authority (NDMA) of India and an experienced disaster management professional. Professor Menon began by appreciating the coming together of an innovative company such as Swiss Re and an innovative NGO such as CSM. He recalled that Swiss Re's Global Risk Report of 2008 had foretold the sub-prime meltdown in the USA and complimented efforts by Swiss Re and the insurance community to offer innovative

insurance to mitigate the worst effects of disasters. He concurred that a Country Risk Officer – as proposed by Swiss Re - would be a good proposition for India and expressed the view that, if agreed, this would be a good outcome of the meeting.

Professor Menon led Roundtable delegates through the history of the Hyogo Process (2005 – 2015) which saw the transition from the International Decade for Disaster Risk Reduction to the International Strategy of Disaster Reduction. He noted that the Decade coincided with the UN's Millennium Development Decade and that it would not deliver if the Millennium Development Goals themselves did not deliver.

Elaborating on the experience of the Decade in India, Prof Menon noted that a key challenge was how to communicate risks and vulnerabilities to stakeholders – in particular, affected communities. One of the limitations of the National Disaster Management Authority was its ability to use the electronic media. Broadcast media was often exorbitant and more cost-effective ways – in particular using new media – had to be found to communicate life-saving messages to stakeholders.

In this respect, the Government of India's e-governance plans provided a welcome alternative and the Government was developing Common Service Centres using a cluster approach. By 2012, as many as 250,000 villages in India would be reached by them with a range of transactional services on offer, from ration cards to meteorological information.

Professor Menon raised the question whether these Centres could be used to communicate better on health and related risks. All these are issues of climate change adaptation and one had to look at opportunities to communicate and address them better.

He then turned to the role of corporates and how they could be engaged more in efforts on NDM. He noted that 53 billionaires in India accounted for 39% of the country's GDP through their wealth. However, he posited that they were not taking on issues of natural disaster or climate risk. Could more be done? How could partnerships with corporates be developed to address the country's risk issues?Turning to the NDMA, he suggested that many more techno-financial schemes could be introduced and one could consider similar facilities to those mentioned earlier by Swiss Re, covering needs such as comprehensive risk, home finance, multi-hazard building insurance etc. The need in India was great and he pointed to recent floods the country had suffered which alone had resulted in a bill of USD 20 billion in damages.

Fortunately, India had some success with mainstreaming disaster management and this issue was well covered in developing planning with strategies such as the 11th 5-year Plan and the National Action Plan on Climate Change (NAPCC). Other positive changes included the range of ministries now represented on the National Disaster Management Authority (NDMA) since 2009. The NDMA was chaired by the Prime Minister and Ministers of Finance, Agriculture, Home Ministry and the Deputy Chairman of the Planning Commission were all invited to attend meetings.

Professor Menon pointed to the significance of having Ministers on the NDMA as the ones in charge, not more junior officials. This was an important step in the right direction and more such moves were needed to ensure coordinated government responses. Moving forward, he noted that more efforts needed to be made to improve the quality of data and models, on-the-ground information, more deliberative approaches and greater prototyping, especially in vulnerable states.

Ending with a quotation from John M. Richardson, Professor Menon said “When it comes to the future, there are three kinds of people: those who let it happen, those who make it happen, and those who wonder what happened.” He hoped that this meeting would consist of those who made the future happen.

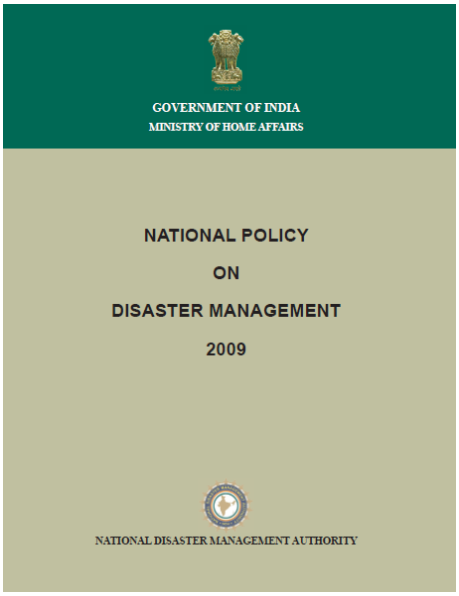
Session I: International best practice on country disaster and climate risk management

Presentation 1 - Reto Schnarwiler

Following the Introduction and Opening Remarks, the session moved into a substantive discussion of international best practice on country disaster and climate risk management. Reto Schnarwiler, Head, Public Sector, Swiss Re, gave the first presentation which surveyed the field. He started by examining the question of who gets stuck with the bill in the event of natural disasters. The reality is that low insurance penetration in emerging countries means that a large portion of the financial loss ends up with the government. Governments have several options to manage the fiscal exposure arising from natural disasters, including: (a) prevention and mitigation; (b) changes in legislations (incl. mandatory systems, incentives, subsidies); and (c) transfer of risk.

More and more governments use these options to manage their exposures before events occur (pre-event). As a side benefit, risk transfer sets a price tag for risk and with that an incentive to reduce risk. Citing India’s national policy on disaster management, Mr. Schnarwiler noted that it called for new financial tools in the section on financial arrangements (section 4):

"Considering that the assistance provided by the Government for rescue, relief, rehabilitation and reconstruction needs cannot compensate for massive losses on account of disasters, **new financial tools such as catastrophe risk financing, risk insurance, catastrophe bonds, micro-finance and insurance etc., will be promoted** with innovative fiscal incentives to cover such losses of individuals, communities and the corporate sector" (emphasis added).



In his wide-ranging presentation, Mr Schnarwiler, provided examples of six case studies to illustrate how risk transfer solutions were making a practical difference for governments and communities faced with natural disaster risk. This included the use of parametric or index cover to enable governments to transfer some

of their natural catastrophe exposure to the international insurance and capital markets.

The case studies mentioned included: Mexico: MultiCat - funding for immediate relief efforts after disasters; Caribbean: Caribbean Catastrophe Risk Insurance Facility (CCRIF); United States: Alabama – first parametric cover for a government in an industrialized country; Malawi: weather derivative covering drought-related shortfalls in maize production; Central America: the Regional Insurance Facility; Turkey: the Earthquake pool for residential dwellings.

Mr Schnarwiler listed the multiple advantages of risk transfer solutions as follows:

- Efficient way to cope with the financial consequences of natural catastrophes
- Guaranteed access to required funds for recovery, up to agreed cover limits
- Speedy delivery, especially with innovative instruments such as parametric solutions
- Pre-determined premium allows for budgeting certainty, particularly in multi-year contracts
- No payback obligation (in contrast to loans)
- Reduction of a country's contingent liabilities to acceptable levels (positive implications on sovereign rating and currency)
- Limits the pressure to diverse own funds from other projects to affected areas

In conclusion, he noted that damage from natural disasters is rising and puts an increasing strain on societies. However, governments are increasingly managing risks in a pro-active and integrated way, and innovative risk transfer instruments help to better absorb the financial consequences of natural disasters.

Presentation 2 – Jeanette Kwek

The next speaker, Jeanette Kwek, Senior Strategist, Centre for Strategic Futures, Prime Minister's Office, provided a detailed example of the Singapore experience. Using arresting visuals, Ms Kwek provided a history of the evolution of strategic planning in the Singapore civil service. This reform programme was focussed on making public service fit for the 21st century and embarked on as part of the government's PS21: The Public Service Change Movement. The emphasis was on embracing change and bringing about an improvement in the Public Service. Key attributes included:

- Building a culture of experimentation and continuous improvement
- Being ready **to** change & ready **for** change
- Everyone is involved

Singapore's Strategic Planning story could be told through three primary concepts and institutions: (a) scenario planning; (b) risk assessment and horizon scanning; and (c) the Centre for Strategic Futures.

This covered national anticipatory thinking in strategic planning; scenario planning and futures thinking; and strategy and policy formulation. The idea was to enable processes to structure thinking, question assumptions, understand driving forces, and develop plausible scenarios.

Scenario planning in the public sector had evolved from the first Scenario Planning Branch in 1991 to approval of scenario planning as a long-term strategic planning tool for the government in just two years in 1993. By 1995 a Scenario Planning Office (SPO) had been established in the Prime Minister's Office and by 2003 this had been transformed into a Strategic Policy Office.

Singapore has been producing national scenarios since the mid-1990s to prepare for the future. Discourse now is moving beyond scenario planning to prepare for non-linear, sudden shocks and complexity and sense-making. The focus now is on Scenario Planning+, moving towards a more networked government with a growing futures community. Here the Strategic Planning Office facilitates the work of strategic planners in the public service. It is a repository of research resources for public agencies to draw on and network with various strategic workshops/forums

Singapore now applies a whole of government Integrated Risk Management Framework with key stages moving from risk identification to assessment & appraisal; communication & acceptance; and finally mobilisation and behavioural changes.

Ms Kwek concluded that as a result of these approaches, national-level anticipatory thinking is a strategic advantage for Singapore. It facilitates long-term planning through use of a common methodology and coordinates cross-ministry strategies; serves as a central node in government networks; builds international networks and coordinates a whole-of-government risk management approach.

Presentation 3 – Nick Mabey

The final presentation of Session 1 was by Nick Mabey, Founding Director and Chief Executive of E3G (Third Generation Environmentalism), on *Preparing for the Worst Case Scenarios: Developing a risk management approach to delivering climate security*. Mr Mabey was unable to attend in person and his presentation was delivered on his behalf.

The presentation covered four main components: Defining a Risk Management Approach; Uncertainties in climate science, impacts and mitigation; Climate Scenarios and Risk Management; and Steps to Building a Risk Management Regime. E3G's work on climate security with leading governments and security agencies had shown the importance of considering "worst case scenarios" of climate change for forward planning. This is because current IPCC scenarios do not reflect the latest science on extreme impacts or social science analysis on climate and instability There is a reluctance to discuss uncertainties which undermines informed public debate. By contrast major security decisions are made on far more uncertain data than climate policy. For example, "What threat will China pose in 2050?"

Mr Mabey said the key question to ask to put the issue in correct perspective was: What would climate strategy look like if we treated it as seriously as nuclear proliferation?

E3G advances a risk management approach to climate change which explicitly addresses how climate change uncertainties, discontinuities and interdependencies should affect policy. It addresses issues of policy failure that are currently underexplored both in the mitigation and adaptation debate. It includes an examination of perverse, unexpected and counter-intuitive behaviour driven by incorrectly managed and/or assigned risks. It includes a systematic discussion of how and by whom different risks should be monitored and

managed. Such an approach is most useful when critical security thresholds exist but their precise location is uncertain.

E3G has devised its 'ABC Risk Management Framework' on climate security:

- **Aim** to mitigate to stay below 2°C;
- **Build** and budget for resilience to 3-4°C;
- **Contingency** plan for capability to respond to 5-7°C

The elements are the same for all countries/actors but the goals will differ. It is vital to emphasise that there is no universal risk management approach.

Underscoring the importance of national risk management systems, Mr Mabey said they are the foundation on which an effective global climate regime can be built. But most countries have yet to develop a clear understanding of what climate impacts will mean for them – e.g. a shift in the Monsoon for India. In addition, actors responsible for areas of the economy, infrastructure and security most impacted by climate change do not have a say on the effectiveness and scale of domestic and international climate policy.

Without such a "whole of government" risk management system, countries will not be able to effectively define their national interests.

Climate change will change the broad strategic context for security policy on many levels. These changes will not fit neatly into patterns of past relations or threats – many will be new.

- Climate change will change strategic interests, alliances, borders, threats, economic relationships, comparative advantages, the nature of international cooperation and the continued legitimacy of the UN.
- Climate change geopolitics will link old problems in new ways and require a more holistic approach to understanding threat assessment.
- Security policy will need to move to a preventive, risk based stance - not a reactive approach; there is no time to just learn by doing.
- Will require greater investment in information systems, preventive capacity/capability, and comprehensive operations.
- "Risk management" provides an approach familiar to security actors which could handle the large number of uncertainties surrounding climate change

During the discussion that followed Session I, it was recognised that the NDMA was a first step in providing guidance on natural disaster issues in India, but the challenge would be in providing traction. It was also agreed that complex, interlinked issues such as natural disaster management and climate risk could not be viewed in isolation but were best considered as part of a comprehensive Country Risk Framework. Anticipating the session to

follow, the question was also raised as to how India's critical vulnerability to climate change could be addressed and by whom.

Session II: The Indian Context - current best practice in natural disaster and climate risk management

Presentation 4 – Dr Dhar Chakrabarti

The session following the lunch break was designed to go into depth on these issues and place the focus squarely on India after a morning spent reviewing best and good practice globally. Dr P.G. Dhar Chakrabarti, Executive Director, National Institute of Disaster Management set the ball rolling with an overview of India's climate risk profile and how these issues were being addressed at an institutional level. Dr Chakrabarti also had a dual role as Director, SAARC Disaster Management Centre, and brought regional insights to bear on the discussion.

Dr Chakrabarti began with a summary of India's key areas of climate vulnerability: rainfall, glacier melt and rising ocean temperatures. While overall rainfall was not considerably more, rainfall patterns were indeed changing across India. This could be witness in aberrations such as the severe rainfall event in Mumbai in 2006 and unprecedented rainfall in desert regions of Rajasthan. There was empirical evidence that glaciers were melting – manifested in increasing incidents of flash floods and landslides. He cited a recent Maplethorpe Climate Vulnerability Index which had placed Bangladesh and India as 1 and 2 respectively to illustrate how singularly vulnerable India was to climate change. Indeed, she was one of the few countries where virtually all the manifestations of climate change could be witnessed.

He cautioned however that extreme uncertainties still existed in the Indian context. Indian climatologists were a very conservative group, especially in 'downscaling' their observations to the local level. The country suffered from scant observational networks, although this need was being addressed which largescale research now being undertaken.

The connection between natural disasters such as floods, cyclones, landslides, flash-floods, etc. and climate change was still uncertain as concrete evidence connecting the two was still lacking. This begged the question, how should an appropriate national strategy be developed in the light of continuing uncertainty?

Dr Chakrabarti suggested that one way would be to remember that whatever increase had taken place in terms of impacts would be irreversible. One could also easily build scenarios in terms of two well-known disasters in the Indian contexts: droughts and floods. These had occurred periodically throughout

India's history and adaptation had taken place – often through shifts in agricultural practices and migration.

But these adaptation practices had not been adequately documented and much more research work was needed to uncover more on indigenous adaptive practices. Despite this history, however, Dr Chakrabarti pointed out that present climate change was severe and indigenous adaptive practices would not be sufficient in a context of continuous drought-like conditions for example. Adaptation interventions would now have to be much more systematically planned rather than left to chance.

He noted that policymakers were not fully tuned to the scale of change needed. For example, if one looked at the 176 adaptations planned by ministers, one found that most of them focussed on socio-economic measures and hardly any on hydro-related adaptation measures. These lacunae had to be addressed if climate change adaptation was to be the best way of reducing the impact of disasters in India.

Presentation 5 – Dr Akhilesh Gupta

Picking up on the impacts story, the next speaker, Dr Akhilesh Gupta, Adviser/ Scientist-G at the Department of Science & Technology, and coordinator of the Climate Change programme, went into greater depth on climate impacts in India. He concurred with Dr Chakrabarti that while there had been a decrease of rainfall in terms of rainy days, there had been an increase in heavy rains and this had a very significant and potentially negative impact in terms of agriculture and livelihoods.

In terms of cyclonic activity, he noted that for India one observed a decreasing trend in cyclonic storms. In some coastal areas, cyclones were increasing in intensity but these were in a minority. As for glaciers, there was no denial that recession – glacier melt – was taking place, but he stated that the 'alarming' rates of melting noted by others were not borne out by the evidence. The extent of the impact of climate change was also not certain, he said, and this is something the NAPCC (National Action Plan on Climate Change) mission on Himalayan ecosystem was looking into.

He noted that in general the country's resilience had increased and cited the massive drought of 2009 as an illustration of how India had managed to avoid mass starvation as a result of more pro-active disaster management strategies.

Dr Gupta also covered other key trends such as demographics and noted that India's population would stabilise by 2040 although we would still be adding the equivalent of Australia to our population annually. He spoke of the importance of the Indian Meteorological Institute's *Vision IMD* process which would bring further improvements in weather system observations, communication channels such as a dedicated 24/7 weather channel and other measures.

Presentation 6 – Professor V.K. Sharma

Prof V. K. Sharma, Expert, Climate Change and Disaster Management at the Indian Institute of Public Administration (IIPA) spoke next as the third and final speaker in Session II. He started with a positive account of a number of developments on the climate change and disaster management front.

Among these were a cell that had been started at the IIPA on environment, climate change and disaster management. The National Action Plan on Climate Change had also incorporated a focus on disaster management and Dr Sharma had organised a workshop with 18 states to help them incorporate some of the NAPCC's new provisions. He emphasised the need to understand the constraints under which states were working and also union territories such as New Delhi.

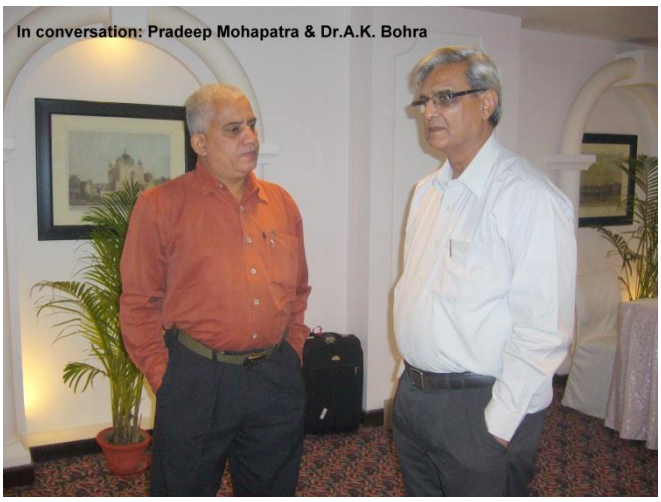
From a public administration perspective, he noted that it was imperative that climate change and disaster management be integrated fully into development planning as otherwise progress would not occur. There were steps being made towards this and he mentioned efforts by the IIPA's various centres on urban studies, rural studies, and climate change and environment to address this.

Professor Sharma concurred with Dr Gupta that India's core strength was in its scientific knowledge. For example, the Indian Metorological Department had 200 years' worth of weather data – something few other countries could boast of. Efforts had also been made to develop early-warning systems for tsunami risks. But he concluded that the core risk for India lay in its rural areas.

With the majority of the population residing in rural areas and 70% of Indians reliant on agriculture, it was imperative to have a full focus on rural risk. Regrettably this was not currently the case. In most conversations around risk, the focus tended to be on urban risk – few were focussed on rural risk and this needed to be corrected immediately. He cited the NAPCC's Greening India report as an opportunity to take this up in a concerted manner.

Discussion

The ensuing discussion took note of many of these points and challenges were also raised. For example, the important role of communities in both designing and implementing climate resilient and disaster management strategies was brought up. Good emerging practice to empower communities to act as change agents on the ground level such as the Community Disaster Resilience Fund and the World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR) were mentioned, as were less positive examples where community engagement was more the exception than the rule. The impact of sea-level rise and coastal erosion in vulnerable parts of India such as Orissa and West Bengal was noted and graphic examples shared.


In conversation: Pradeep Mohapatra & Dr.A.K. Bohra

Among the areas of alignment, the different missions under the NAPCC were repeatedly mentioned as providing new opportunities. For example, a large knowledge programme had been launched under the eighth mission on human and institutional capacity building. The Department for Science and Technology had been selected to manage this given its impressive national networks with research institutions and a pro-active R&D programme was being started under the mission. Among the challenges was the

need to not only empower communities but also scientific workers, farmers and a range of other practitioners. On the positive side, it was recognised that a number of bilateral training programmes with foreign governments such as the UK, Norway and Swiss were engaged on precisely this though more efforts were needed.

The role of public-private partnerships also came under scrutiny with some asking for clarification as to whether this was intended as a one-way street for private gain. It was acknowledged that the private sector had a clear role to play – and was already doing so as the example of Swiss Re showed – in the search for solutions to mitigate climate change and natural disaster impacts. But the importance of accountable public frameworks for PPPs to ensure public benefit was also widely agreed upon.

The Climate Insurance Initiative was offered an example of an industry initiative where insurance and re-insurance companies were taking the lead on climate-related risks. Swiss Re was also working on numerous ground-level projects such as with MFIs (micro-finance institutions) in India on agri-insurance schemes, etc. One size did not fit all, however, and the challenge was how to scale up without tailoring each product to a specific need.

A number of strategic issues were also raised such as the role of public investment for risk management. It was noted that this was a very unsatisfactory area of public policy with the Ministry of Finance singled out for a lack of leadership. The present situation where the majority (70%) of adaptation funds in the country took the form of either subsidies or anti-poverty programmes meant that only 30% were going into critical areas such as natural resource management. The country had to decide whether such a relief- and subsidy-centric model of investment was sustainable.

When it came to the role of private finance for disaster management, the Finance Commission was also criticised for not acting pro-actively enough. It was felt that these issues required broader discussion within the disaster management community than they were receiving at present.

Delegates also acknowledged the important role of the media in raising awareness of climate and natural disaster risks in a pro-active manner. One of the research needs identified was a mapping of who was doing what in these fields. CSM's regular publication 'Who's Who in Climate Change in India' was mentioned as a resource but similar efforts for the NDM community needed to be made to enable greater cross-community cooperation.

At the most general level, it was felt that there was a vast research gap in terms of what was known about risk at the macro level compared to risk analysis at the micro level. The local level had been traditionally very under-served and efforts needed to be made in this direction.

A data gap was also evident at the local level, in particular, on hydro-meteorological data. It was felt that the on-going modernization of the IMD under *Vision IMD* could play an important role in redressing this need.

4. Conclusions and next steps

Key learnings

This policy Roundtable brought together a number of key players from the policy community, academia, micro-finance, disaster management professionals, climate change activists, donors and development professionals. The grouping was small but the depth of expertise impressive. The objective was to spark greater interaction between the climate change and disaster management communities leading to better integrated and more strategic approaches to addressing country risk management in India. It was agreed that unless India learnt to manage her risks better, rapid climate change and natural disasters could deal perilous blows to the national sustainable development effort

The meeting was a small step towards this larger goal of better informed and more systematic country risk management. The day was intense with delegates deeply absorbed in conversation. A clear focus resulted in a number of concise learnings and outcomes.

Among these was the conviction that now was a good time to build greater synergies between communities present and bring in others such as the security community. The National Action Plan on Climate Change (2008) and the National Disaster Management Policy (2009) provided good foundations to build more forward-looking and impactful strategies to address India's national risks. They also provided important opportunities for institutional reform and innovation in terms of improving public administration, experimenting with new forms of partnerships and building capacity at all levels.

Given India's critical vulnerabilities in terms of climate and natural disaster risk, a core area of consensus was the need to focus on rural populations and local level impacts. Strong national risk assessment capacity at the macro (national) level now had to be complemented by improved analysis at the meta (state) and micro (grassroots) level. Research and data gaps at these levels had to be addressed as a matter of urgency.

Recommendations

The Roundtable endorsed a recommendation by one of the Delegates on a clear way forward. This was articulated as a four-step process to develop a strategic and integrated Country Risk Management strategy consisting of the following:

1. Undertake a Country Risk Assessment and Vulnerability Analysis in India. (Incl. mitigation interventions and finance mechanisms).
2. Propose a Knowledge Management system that will address lacunae highlighted in the meeting.
3. Devise an Advocacy Programme with key policymakers (incl. PMO, NAPCC, NDMA, Min of Finance, etc.) engaging other stakeholders (civil society, business, states)
4. Network to develop synergy with a range of stakeholders and partners

Useful models could be found in neighbouring countries such as Nepal and lessons taken from them. At a minimum, work could begin by commissioning a discussion paper to guide action and consider prototypes in states such as Assam or Bihar with close cooperation with local NDMA and NAPCC officials. Furthermore, it was proposed to build a prototype for financial intermediation in one state which could act as role model for the national level.

Next steps

It was proposed that the Roundtable could establish a **Consortium on Climate Change & Disaster Risk Management** to provide a structure for follow-up action and that all attendant institutions who participated in the Roundtable could be founding-members of such a consortium. CSM could act as the Secretariat and driving force - with support from Swiss Re and others - of such a consortium and help give it form over the coming months.

There was general endorsement of this proposal as a practical follow-up to the Roundtable. Delegates agreed that Meeting Report should be widely circulated and other parties consulted and invited to engage in a meaningful follow-up process.

In the meantime, CSM would create a dedicated 'Climate Risk' section on its website to upload all relevant documents (including full presentations) and enable information sharing and exchange to take place.

Photo: Swiss Re and CSM Policy Roundtable hosts.

NB.: CSM has created a 'Climate Risk' section on its website to house reports and documentation related to this initiative. All PPT presentations delivered at the Roundtable can be downloaded in PDF format from the website. www.csmworld.org

For more information on this initiative, please contact:

Ms Dolan Chatterjee, CSM

dolan@csmworld.org www.csmworld.org www.indiaclimateportal.org

Annex 1 – List of Participants

Bohra, A.K.	Ex Head, National Centre for Medium Range Weather Forecasting, Ministry of Earth Sciences
Chauhan, **Vandana**	Representative, All India Disaster Management Institute
Dhar Chakrabarty, P.G.	Director, SAARC Disaster Management Centre and Executive Director, National Institute of Disaster Management (NIDM)
Dror, David	Chairman and Managing Director, Micro-insurance Academy
Gupta, Akhilesh	Coordinator, Climate Change Programme & Adviser, Scientist-G, Department of Science & Technology, Govt of India
Kwek, Jeanette	Senior Strategist, Centre for Strategic Futures, Prime Minister's Office, Singapore
Liès, Michel	Chief Marketing Officer & Member of Group Executive Committee, Swiss Re Ltd
Mabey, Nick	Founding Director & Chief Executive, E3G
Mahapatra, Pradeep	Team Leader, UDYAMA (Orissa)
Mehra, Malini	Founder and Chief Executive, Centre for Social Markets
Menon, Vinod Chandra	Member (ex), National Disaster Management Authority
Panigrahi, **Srikanta K**	Director General, Carbon Minus India
Schnarwiler, **Reto**	Global Head, Public Sector, Swiss Re Ltd.
Sharma, V.K	Expert Climate Change and Disaster Management, Indian Institute of Public Administration (IIPA)
Singh, Raj	Chief Risk Officer and Member of Group Executive Committee, Swiss Re Ltd.
Sinha, Shirish	Senior Thematic Advisor - Climate Change, Swiss Agency for Development and Cooperation
Viswanathan, K.R.	Senior Advisor- Climate Change, Swiss Agency for Development and Cooperation

Annex 2 – Speaker Biographies

Dhar Chakrabarti ,P. G.

Director, SAARC, Disaster Management Centre & Executive Director, National Institute of Disaster Management (NIDM)

P. G. Dhar Chakrabarti joined the Indian Administrative Service in 1980 and has held many assignments in the State, National and International levels. Currently, he is also heading India's National Institute of Disaster Management. He was nominated by the UN Secretary General as a Member of the UN's Advisory Group on the Central Emergency Fund. He has served in a number of Expert Panels of the UN on disaster risk reduction and written a number of books on different aspects of disaster management.

Gupta, Akhilesh

Adviser/Scientist-G & Coordinator, Climate Change Programme, Department of Science & Technology, Government of India

Dr Akhilesh Gupta obtained his MSc degree in Physics from Lucknow University in 1984 and joined M.Tech course at IIT, Kanpur. Dr Gupta received his doctorate degree in Atmospheric Sciences from IIT, Delhi. He worked in the India Meteorological Department during 1985-1994 as Meteorologist and then joined National Centre for Medium Range Weather Forecasting, Department of Science & Technology (DST) where he worked at various levels until 2006.

He became Adviser / Scientist-G in 2006. During 2007-09, he has worked as Adviser to the Union Minister for Science and Technology and Earth Sciences. Presently he is working as Coordinator, Climate Change Programme at the Department of Science & Technology, Government of India.

Dr Gupta has been a weather forecaster by profession. He has published over 75 research papers in various national and international journals. He has been Managing Editor of the Bulletin of Indian Meteorological Society since 4 years.

Dr Gupta has been a member of National Coordination Team led by Shri Kapil Sibal, the then Union Minister for Science & Technology and Earth Sciences which drafted India's National Action Plan on Climate Change.

Kwek, Jeanette

Senior Strategist, Centre for Strategic Futures, Prime Minister's Office, Singapore

Jeanette Kwek is a Senior Strategist at the Centre for Strategic Futures, in the Public Service Division in the Prime Minister's Office. The Centre for Strategic Futures aims to develop Public Service capability to prepare for the future, and position Singapore to deal with emerging strategic challenges and opportunities. Prior to joining the Public Service Division, Jeanette was a Senior Policy Officer at the Defence Policy Office, Ministry of Defence. She was educated at

Raffles Girls' School and was a Humanities Scholar at Raffles Junior College. She was awarded the Singapore Public Service Commission's Overseas Merit Scholarship in 2001, and graduated with Bachelor of Arts degrees in Political Science and Economics from the University of Chicago in 2005.

Liès, Michel

Member of Group Executive Committee Client Markets
Swiss Re Ltd

Michel M. Liès became a member of the Executive Board in 1998 and was appointed Head of Latin America division.In April, 2000 he became Head of Europe division of the Property & Casualty Business Group. In September, 2005 he assumed the position as Head of Client Markets Business Function.

Mr. Liès, a citizen of Luxembourg, born in 1954, gained a degree in mathematics from the Federal Institute of Technology in Zurich, following which he became head of the finance department at the Brazilian branch of an Italian company.

In 1978, Mr. Liès joined the life department of Swiss Re in Zurich and was active mainly in the Latin American market. From 1983 to 1993, he was responsible for France and the Iberian peninsula and coordinated Swiss Re's life strategy in the EC member states.

In 1994, he got transferred to the non-life sector of the Southern Europe/Latin America Department, where he was initially responsible for the Spanish market. He was appointed head of the Southern Europe/Latin America department at the beginning of 1997.

Mabey, Nick

Founding Director & Chief Executive
E3G (Third Generation Environmentalism), UK

Nick Mabey is Chief Executive and a founder director of E3G (Third Generation Environmentalism) a non-profit international organisation dedicated to accelerating the transition to sustainable development. In addition to his management role, Nick leads E3G's work on European climate change policy, climate diplomacy and foreign policy, and the security implications of climate change.

Nick was previously a senior advisor in the UK Prime Minister's Strategy Unit leading work on national and international policy areas, including: energy, climate change, countries at risk of instability, organised crime and fisheries. Nick was employed in the UK Foreign and Commonwealth Office's Environment Policy Department, and was the FCO lead for the Johannesburg Summit in 2002 where he established international partnerships on clean energy, tourism and environmental democracy.

Before he joined government Nick was Head of Economics and Development at WWF-UK. He came to WWF from research at London Business School on the economics of climate change, which he published as the book "Argument in the Greenhouse". This followed a period in the UK electricity industry working as a negotiator for PowerGen and an engineer for GEC-Alsthom. Nick trained as a mechanical engineer at Bristol University and holds a

masters degree in Technology and Policy from MIT where he specialised in energy systems analysis.

Among other appointments Nick is currently on the advisory board of Infrastructure UK, the independent commission reporting to the UK Conservative Party on the design of a Green Investment Bank, and the Advisory Council of the European Technology Platform for Zero Emission Fossil Fuel Power.

Mehra, Malini

Founder and CEO
Centre for Social Markets

Malini Mehra is founder & CEO of the Centre for Social Markets (CSM). She has worked and published on sustainability issues in the public, private and voluntary sectors for more than 20 years. Her experience ranges from international NGOs such as Oxfam and Friends of the Earth to the United Nations and national government. While at the UK govt, she was the architect of the UK's pioneering Sustainable Development Dialogues with China, India, Brazil, South Africa and Mexico. She also served as adviser to UN Secretary General Kofi Annan on civil society- UN relations and presently sits on numerous advisory boards including Unilever, BHP Billiton, Kimberly-Clark, the UK Science Museum, etc.

Malini is also a director of Chinadialogue.net the world's first bilingual website on China's environment. She is a frequent media commentator and her honours include World Economic Forum 'Young Global Leader', Asia 21 Young Leader and CNN Principle Voice. She is a graduate of Smith College (USA) and the Institute of Development Studies (Sussex).

In 2009, she produced the film, *In Good Company*, profiling corporate leadership on climate change in India. CSM also produces the regular 'Who's Who in CSR in India', the 'Who's Who in Climate Change in India' and hosts the India Climate Portal. An Indian national, Malini speaks six global languages and has lived and worked on three continents. An optimist, she is married with three small children and splits her time between India and the UK.

Menon, Vinod Chandra

Former Member
National Disaster Management Authority
Government of India

Prof. Menon has worked in the Economics Area of the Indian Institute of Management, Ahmedabad and in the Information Centre on development-Policy Modelling (ICDM) supported by the IDRC, Canada at Systems Research Institute, Pune. Since 1986, he worked as Associate Professor (Economics and Planning) at Maharashtra Institute of Development Administration (MIDA), Pune and from 1996 as Professor (Disaster Management) at the Yeshwantrao Chavan Academy of Development Administration (YASHADA), Pune.

While working as the Professor at the Centre for Disaster Management at YASHADA, Pune, he coordinated the preparation of state and district disaster management plans, the setting up of a state-wide satellite-based Emergency Operations Centre network and the

preparation of spatial and non-spatial overlays of ARCINFO-based geographic information system covering 43,000 villages of 35 districts of Maharashtra.

In August 2002, Prof. Menon joined the UNICEF India Country Office in charge of emergency preparedness and response. He coordinated the UNICEF response to floods in several states, drought in Rajasthan, post-earthquake rehabilitation efforts in Gujarat and the Indian Ocean Tsunami in the affected states and Union territories, including Andaman & Nicobar islands. He has been a Member of the United Nations Disaster Management Team in India, UNICEF Country Management Team and the Operations Group.

Prof. Menon was nominated as a Member of the High Power Committee (HPC) on Disaster Management Plans set up by the Government of India in 1999. He has worked as Consultant to the World Bank, UNDP, UNICEF and ADPC, Bangkok on Disaster Management related projects. He has published scores of articles, papers and chapters in books on disaster management. Prof. Menon has participated and presented papers at several International Conferences in USA, UK, Germany, Thailand, Nepal, Italy, Japan, etc.

In August 2005, Prof. Menon was nominated as a Member of the newly constituted National Disaster Management Authority (NDMA) headed by the Hon'ble Prime Minister of India.

Schnarwiler, Reto

Global Head
Public Sector, Swiss Re Ltd.

Reto Schnarwiler leads Swiss Re's business activities with governments, development and non-governmental organisations world-wide. As the world's leading and most diversified global reinsurer, Swiss Re offers financial services products that enable risk taking essential to enterprise and progress. The Group's position as preferred partner in the risk transfer industry is based on value propositions that comprise risk expertise, global reach, scale, diversification, very strong capitalisation and resilience over the long term.

Sharma, Vinod Kumar

Professor, Disaster Management and Environment
Chairman, Public Policy, Planning and Environmental Studies, Indian Institute of Public Administration

Professor Sharma is involved in training, research, and documentation of natural disasters. He is presently working on capacity building programme of the Government, for Climate Change Adaptation in Indian Institute of Public Administration with the assistance of Ministry of Environment and Forests. He is the Convener for Training in the same.

Until October 2006, Professor Sharma was the Chief of Party, Program for Enhancement of Emergency Response (PEER) at the USAID funded programme for six Asian Countries.

Until May 2003 he was the coordinator for the National Centre for Disaster Management.
Until March 1995, Professor Sharma was the associate Professor of Environment/ Coordinator Public Policy Planning and Environmental Studies, Indian Institute of Public Administration, New Delhi.

Presently, he is the Professor, Disaster Management and Environment besides being the Chairman, Public Policy, Planning and Environmental Studies at the Indian Institute of Public Administration (IIPA).

Singh, Raj

Member of the Executive Committee
Chief Risk Officer, Swiss Re Ltd.

Raj Singh joined Swiss Re in October, 2007 from Allianz SE, where he was Group Chief Risk Officer from 2002. From 1989 to 2001, Raj was with Citigroup, where held a number of senior positions, including Managing Director Risk and M&A from Citibank Northern Europe with site responsibility for Citibank Belgium.

Raj is a Member of the International Financial Risk Institute and founding Chairman of the Chief Risk Officers Forum. He serves on the Board of two publicly traded financial institutions in the Middle East, Oman International Bank S.A.O.G. and Muscat National Holding S.A.O.G., and is a member of the Board of Fellows at Thunderbird School of Global Management and a board member of the Hoerner School Foundation.

A U.S. citizen born in 1962, Singh holds a Bachelor of Science from the Winona State University, Minnesota, and an MBA from the Thunderbird School of Global Management, Arizona.

He is married with three children.

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