Centre for Science and Environment

Towards Climate Resilient Communities: Emerging Policies and Practices

Dec 13 - 14, 2012

A Summary of the Workshop

CONTENTS

I. OVERVIEW

The workshop 'Towards climate resilient communities: Emerging policies and practices' took place on December 13 and 14, 2012 at CSE. It was attended by representatives from around 20 NGO's and other civil society organisations from across different parts of India and the South Asia region - Bangladesh, Nepal and Sri Lanka. The meeting was convened to both take stock of the climate impacts that communities had documented and experienced or the lack of, and to understand the factors at play driving the 'climate change adaptation' process at large in the South Asian region.

Much experience-sharing took place over the course of two days through the interactive workshop module where participants presented on different issues under broadly categorised themes such as coastal impacts, agriculture and water, disasters, livelihoods and community responses**.** Presentations covered issues ranging from rain water harvesting methods in western Rajasthan to adaptive techniques for dealing with the floods in northern Bihar to risk-proofing through climate insurance options.

The workshop was successful in bringing a diverse group of practitioners and implementers working in the field of climate change adaptation from across the country and the region to understand the state of play of 'climate change adaptation'. One of the outcomes expected of the workshop was a south-south network of adaptation practitioners and those working to influence and shape policy in this area. The workshop provided the platform for bringing together such a diverse group of people to come together, share and deliberate on experiences and challenges who decided to keep each other informed of developments and stay connected as a way to keep the discussions alive and ongoing. To this end, it was agreed that a detailed report of the workshop would be circulated amongst all participants and key issues identified by participants as areas that need critical attention in adaptation would be shared and further deliberated upon. This report highlights the discussions that took place over the two-day workshop and provides a brief summary of all the presentations in the order in which they took place.

II. OPENING SESSION

Mr. Chandra Bhushan, head of the Climate Change unit and Deputy Director General of CSE, provided the opening remarks by welcoming all the participants present and shared his thoughts on the purpose and intentions of CSE in organising such a workshop. Addressing how most meetings and conferences on the issue of adaptation placed more importance on larger policy issues, he pointed to CSE's intention to draw a group of practitioners working at the local level to understand if and how and to what extent were communities experiencing the impacts of climate change. This was important in understanding how adaptation was being interpreted and implemented in different regions and contexts. This grassroots understanding was essential to be able to mainstream adaptation into policies that addressed development and growth in the region. He then talked about India's position at the international negotiations, which currently does not have a coherent stance on adaptation. One of the key issues at the recently concluded Doha CoP was that of loss and damage where there was an absence or dearth of Indian negotiators pointing to a clear lack of engagement with an issue that holds large implications for the country and the region.

The remainder of the session addressed adaptation at different scales, ranging from India's national action plan on climate change to the approval and implementation of state action plans. Ms. Sunita Narain, Director General of CSE initiated the debate on whether and how adaptation projects are doing more than existing projects that aid development. She asked the question if adaptation was a case of just renaming developmental projects in order to access an increasing number of donor-based funds that are being earmarked for adaptation. Also, how did adaptation projects differ from the existing developmental projects on the ground. She also asked if it would not suffice to increase the economic and social well-being of communities in order to render them more resilient to impacts of climate change. One group of people argued that while developmental projects could overall increase the resilience of communities, it may not protect them from exposure to climate impacts in a future period if this is not already built into the planning stage. In this sense, the process could be called climate-proofing developmental projects. But the question of what exactly should come within the scope of adaptation eluded a specific answer and was brought up in later discussions.

III. COASTAL VULNERABILITIES

Addressing the potential to be harmed along the Indian coast, Anurag Danda, WWF

Dr. Danda presented broadly on WWF's work in the Sundarbans region focusing on their intervention post-cyclone Aila in 2009.

Following the cyclone, the agriculture department in the state subscribed to business-as-usual, failing to provide the much-needed salt-resistant varieties of crops to impacted farmers. Prior to starting its programme in the Sundarbans, WWF had done a survey of climate impacts worldwide and validated these through the scientific community. So when Aila hit, WWF was prepared enough to provide the salt-resistant crops that were needed. Other solutions included salinity shock resistant fish, shelters, response teams and relief.

Integrated pisciculture unit in Odisha

When asked if communities should move away from resource-dependent agricultural practices, Dr. Danda explained that this would depend on the community in consideration. In the case of those in Ghoramara, with no land left for them to subside on, they would eventually with time, with the loss of land move away from agriculture since it would not make economic sense to them. Here, a proactive stance is needed to find alternative livelihood options. He then discussed an interesting option that could be applicable in the Sundarbans, which is losing land and that it will continue to do so. In the state of Rhode Island in the US, they practise something called rolling easements which compensates people for the loss of private island. Typically, private land is not compensated for by the Government but this could be understood further and its implications for the Sundarbans studied.

Increasing Resilience and Reducing Risk of Coastal Communities to Climate Change and Natural Hazards in the Bay of Bengal, Sarojini Brahma, RCDC

RCDC's work in two coastal districts in Odisha was the topic of Sarojini Brahma's presentation. While increasing the resilience of the coastal communities to the impacts of climate change was a specific goal of the project, the overarching goal was to alleviate poverty in the region. In a baseline study, while communities stated that there had not been an increase in disasters, what practitioners know to be slow-onset events such as saline ingress and increase in flood intensity were identified as climate change events by the locals. She pointed to the helpless, "you tell us what is happening" attitude that prevailed amongst villagers. The communities had been impacted by saline ingress, tidal surges, decrease in primary productivity and forest cover, sea erosion and also the migration of youth which left the women of the region even more vulnerable. A participatory approach was used to identify local/indigenous practices to diversify their livelihood options and interventions in the form of fuel-efficient chulha to reduce firewood expenditure, salt-tolerant fish varieties introduced in the pisciculture practice and vegetable cultivation in a bund arrangement without the application of fertilizers to reduce agricultural costs in an area where soils were previously not suitable for vegetables have been introduced. Also, duckery was introduced since ducks are better adapted to changing climates in comparison to poultry birds. The project which has completed 2 years of its 5-year duration has used only community perceptions so far to establish impacts and not involved the scientific community.

SUNDERBANS – A Fragile Ecosystem – SHIS'S Experiences and Future strategies, MA Wohab and Dipankar Dasgupta, SHIS

SHIS – Southern Health Improvement Samity has been working in Sundarbans for the last 33 years providing health care for the local communities. In their presentation, Dr. Wohab and Dipankar Dasgupta explained the type of climate change impacts that have been taking place in the region which includes salinity intrusion, increase in extreme events such as cyclones and the rise in sea and river erosion along with prolonged summers and shorter winters. Diseases like malaria and dengue which were not found in the region before are now being reported but case histories mostly trace the source of the vector back top Kolkata.

Overall, the current scenario is one of a rapid decline of food and employment security with dramatic fall in crop yields & fish catch due to increasing soil & water salinity, very high rates of malnutrition, large scale forced migration, breakdown of families due to desertion, increase in child labour and trafficking as well as women committing suicide – recorded as the highest in the world. The community is responding by shifting its farming periods and by diversifying into weather-resitant crops. But this is not enough says Dipankar Dasgupta. Government will need to step in to change CRZ and Forest Acts such that they take into consideration the unique needs of the Sundarbans ecosystem and its people and enforce minium engineering standards for infrastructure in the region. The current scenario if left unchecked would lead to the eventual degradation of the sundari trees, which are already impacted by dieback due to the top-die disease and decline in flora and fauna of the region.

IV. COMMUNITY RESPONSES, PLANNING AND DISASTER MANAGEMENT

People, Technology and Alluvial flood plains of north Bihar, Eklavya Prasad, Megh Pyne Abhiyan

The predicament of the flood-prone communities of northern Bihar came alive through the image-filled presentation by Eklavya Prasad, the founder of Megh Pyne Abhiyan, an operation that innovated the method of temporary rainwater harvesting with local materials for victims of the floods in Bihar. Floods are a recurring feature in northern Bihar but not enough study exists to validate the imprint of climate change on the increase in intensity of floods. Eklavya Prasad pointed to the increasing presence of embankments, which could be one of the reasons for this increase. This also brought up the interesting case of the profitable nature of embankments and the political investment associated with it, which prevents the removal of or reducing of the construction of such infrastructure. The local people are responding by changing cropping patterns – paddy fields and chilly which were absent for a while are now being reintroduced. The temporary rain water harvesting has been successful in providing people safe, clean water in the place of inundated water that was being consumed in extreme scenarios in the past.

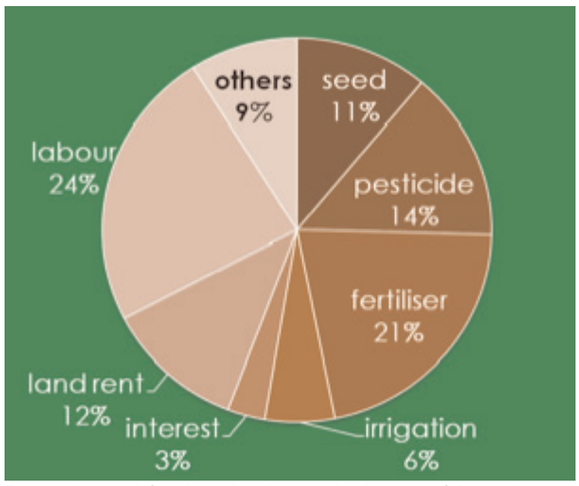
The nature of current projects in challenging the welfarist and dominant paradigm, which was also discussed in light of how people are now responding more locally to problems unlike the case of the hand pump, a welfarist intervention which is prevalent in both flood-prone northern Bihar and drought-prone southern Bihar, regions with completely different water needs.

Community charter on climate crisis - A Case Study from Baigachak of Chhattisgarh, Ramesh Sharma, Ekta Parishad

Ramesh Sharma of Ekta Parishad chronicled the events that have led to the loss of biodiversity and the indigenous way of life as practiced by the Baiga tribal community in the Baigachak district of Chattisgarh. Bewar, a method of shifting cultivation that produced a diverse output of vegetables, cereals and fruits was first threatened under the British Rule that supported expansive deforestation. More recently, mining companies and policies that do not protect the interests of the Baigas places the ecosystem under further threat. Although not directly linked to climate change, the Baigas notice an increase in temperature, shorter period of winter, erratic rainfall, depleting water table, loss of soil moisture and increase in disease and disorders in crops and human beings. To respond to the situation and prevent further degradation of the ecosystem and also support local governance, they call for legalizing the practice of shifting cultivation in select areas and ask that environmental impact assessments that do not provide sufficient attention to social concerns be strengthened to address this.

Community-managed sustainable agriculture – DV Raidu, CMSA, Centre for Poverty Alleviation

Mr. DV Raidu presented the case of how a decentralized integrated agriculture practice in the rain-fed districts of Andhra Pradesh has led the community to realize profitable yields without compromising on quality and yield of produce. The system comprises self-help groups of 10-15



Pesticides and fertiliser leading to high cost of Agriculture in Andhra Pradesh

members working at the ground level, around 200 members working at the village level to strengthen the functioning of self-help groups and sub-district and district level groups that are called samakhyas. These serve as links between the ground-level groups and the market and government agencies to enable effective linkage to the market and smarter pricing of the produce. Active groups of women at every level of the structure stand central to the functioning of the tiered system.

The rainfed method of agriculture practiced in the drought-prone areas had a high level of uncertainty attached to it. In order to bring down the costs of agriculture, their dependence on fertilizers and pesticides which contributed to more than one-third the cost, was reduced. This was a demand of the women in the region where more than 90 per cent of the women own a piece of land and do a majority of the decision-making. Seed sovereignty, pesticide-free and organic farming are three important elements and they also believe that the farmer is the best innovator and scientist.

A combination of practices that includes a diversified selection of crops, zero tillage, agroforestry, bund plantation and farm ponds and comprehensive drought proofing have increasingly made the farmers more resilient against climate impacts such as increase in droughts, reduction of soil moisture content and increased incidence of pests and diseases.

The World Bank, a donor of the project from its earlier days then recommended that the project should be called climate change adaptation project owing to the climate-resilient nature of the agricultural practices being developed and followed. Now, the potential for earning carbon credits for the project is being further explored.

The program is expected to further expand horizontally to deepen local knowledge systems and expects around 1 crore acres in the state of Andhra Pradesh, around 40 per cent of the state's cultivable area to follow community-managed sustainable agriculture by 2015-16.

Experiences in piloting a LAPA on WASH in Nepal, Himalaya Panthi, NEWAH, Nepal

Himalaya Panthi from NEWAH presented on NEWAH's experiences with generating a local adaptation plan for three pilot locations covered by the WASH program which primarily deals with providing access to clean water and oversees hygiene and sanitation issues. The ongoing project has thus far collected the community's perspectives on climate impacts such as increase in temperature, disasters such as landslides, floods and fires and changing precipitation patterns and the importance they attach to adapting such impacts. Some of the learnings include the need for a baseline data and sensitization workshop prior to implementing an adaptation plan. Also acknowledged was the multi-sectoral nature of the issues and the poorest being identified as the most vulnerable. This lent to a discussion on whether we need an assessment that would point us to a basic understanding that the poorest in any region would automatically be the most vulnerable and how then should such assessments be refined to provide a more nuanced insight into each region/area's vulnerability to climate impacts.

Mainstreaming DRR and Climate Change Adaptation in Local Development Planning Processes Lessons and Experiences from Sri Lanka, Bhathiya Kekulandala, Practical Action

Bhathiya Kekulandala from Practical Action spoke of a case of community action in Sri Lanka stepping in to take control of disaster mitigation and risk reduction in the region in an area, which was typically handled only by Government agencies. According to him, the community should take the leadership for disaster mitigation but financial allocations for development functions are with authorized bodies, effectively removing the community from the process. This is also because the poor communities can typically only come up with meager contributions.

The case study presented was of a village called Wanduruppa in the southern part of Sri Lanka located along the Walawa river. The Walawa river had changed its course such that the people of the village were more exposed to flood events. In monetary terms, the annual crop loss from these floods, numbering around 10-15 year was estimated at 48 million rupees placing around 500 households at risk. Practical Action intervened to hold consultations with both the communities and other divisional level stakeholders to come up with a hard


Effective flood mitigation mechanism in Ambalantota district of Sri Lanka

prioritization plan which includes scenario planning under varying climatic projections in the future and drawing up sectoral land-use plans. Flood gauges have been installed following the consultation process and a mechanism has been established for communities to be involved in the process. Some of the outcomes include construction of drainage schools around schools and hospitals, identification of those families in high risk zone to be relocated and an increase in the value of land in the region. Additionally, alternative livelihoods such as handicrafts and eco tourism have been promoted and flood resistant crop varieties have been introduced.

V. AGRICULTURE-WATER NEXUS

Climate Adaptation with Eco-friendly and Alternative Agriculture, Tarik Sayed Harun, COAST, Bangladesh

Following a brief introduction to COAST's work in the eastern coastal part of Bangladesh which works largely on promoting community-based management and alternative power structures, Mr. Tarik Sayed Harun delved into how the communities have been coping with increasing uncertainty due to climatic disruptions. This is particularly true of those districts that have relied heavily on fishing as a livelihood option. COAST has been working with the communities introducing alternative livelihood options which include using the less-expensive sex pheromone for pest control to reduce costs, using the leaf colour chart to reduce fertilizer area and promoting options most suited for climate affected communities such as poultry and duck and goat rearing which fetch the communities healthy returns. He also spoke of the strengths of local institutions such as the people's organization which has been effective in engaging with the local government on issues of justice and compensation for communities affected by disasters.

In a brief discussion that followed on the status of a national adaptation plan in Bangladesh, Mr. Tarik explained that such a strategy plan had been constituted in 2003 with several pillars under it such as food security, disaster management and capacity building. The Government was implementing this plan primarily through Government channels and NGOs through donor-supported activities. Only recently, the Government has included NGOs in its program implementation.

Resilient/Adaptive Agriculture in Flood Affected Area and Urban Climate Change Resilience: Case of Gorakhpur City, Shiraz Wajih, GEAG

Shiraz Wajih from the Gorakhpur Environment Action Group started his talk by explaining how urban-rural distinction becomes hard to make in the face of climate change, especially in a place like Gorakhpur. He spoke about how floods have made the region more suited for agriculture which contributes to 30 per cent of the state income. Floods have a long history in the region but recently changes in the flood patterns were being noticed. Some other changes that are being noticed include an increase in the temperature in the month of January although the overall duration of winter has shortened. In the Tarai region, water-logging has increased in the last 20 years in both area covered and duration, particularly noticeable in the trans-Salu region. This affects wheat harvest. Normally, rice harvest lost is

made up for by wheat production but with extended water-logging, this is not possible.

The vulnerability of any community is determined by several factors – infrastructure, social institutions, economic base and natural environment. Shiraz Wajih explained how resiliency can be developed to address this vulnerability in a flood-prone area. This can be done through redundancy – by increasing diversity in agriculture and livestock options, through flexibility which should capture responses in an uncertain scenario such as climate change – through increasing robustness of the farming system and drainage and through responsiveness measures such as time and space management in cropping systems. GEAG promoted pre-poning and postponing certain crops relative to the flood to increase the communities preparedness to deal with the floods. He then spoke of how community-driven processes scored higher in cost-benefit analyses compared to infrastructure-driven processes (eg: embankments).

Water in a semi arid context: Challenges and Community Planning in a climate varying situation, Harish Daware, WOTR

In his presentation, Harish Daware of WOTR spoke of their engagement with the communities of Darewadi in Maharashtra and the type of outcomes that have been achieved following their intervention in the region. Following interventions by WOTR in the district such as regeneration of common lands and a ban on borewells and tubewells, communities have been able to see an increase in vegetation and an increase in water availability although rainfall levels in general have seen a decrease. Drinking water used to be provided by tankers; this is not the case anymore. Production of vegetables, oilseeds, pulses increased over time and land under irrigation and cropped area has increased. Despite an overall increase in the level of productivity owing to communal practices, an equity issue remains. Even in drought conditions, the haves use more resources than the have-nots, increasing their vulnerability levels.

Drought proofing measures adopted in Maharashtra

Mr. Harish also explained that WOTR is in the process of developing a crop and weather forecasting system wherein local rainfall and temperature information from project areas along with indigenous biodiversity information is sent to the agriculture university in the region which combines this with data from the weather station, interprets it and then sends this out in the form of sms to the tribal communities. There is initial excitement about this kind of information which is yet to be fully developed and implemented.

Harvesting Rain: A Sustainable Solution to Climate Change in Western Rajasthan, Rahul Mishra, GRAVIS

GRAVIS works in western Rajasthan in the Thar region with local communities there combining traditional wisdom and modern sciences to develop self-reliant communities. Rahul Mishra from GRAVIS detailed the impacts of climate change on Rajasthan – increased rainfall like in the year 2011 which recorded 737 mm of rainfall compared to the average of around 530 mm of rainfall. Drier conditions and uncertainties have led to anerosion in the traditional practice of keeping small ruminants which is leading to lesser migration. The challenges that emerge are primarily due to the extended dry season leading to further scarcity of water but also in recent spells of extreme events such as the floods in Barmer in 2006 and then the floods in Jaipur and Bikaner in 2012. Rain which used to enter from the southern part - bara, baswada, kota is now entering from western part. Rainfall has increased in intensity but rainy days have come down.

To increase their resilience to growing uncertainty, GRAVIS promotes the construction of different kinds of water storage structures indigenous to the region like taankas, khadins and naadis. Naadis are village ponds that serve as recharge well for the whole year. Khadins which are built on the down slope of an agricultural field to capture the runoff

Effective drought mitigation through a taanka in western Rajasthan

water help in providing silt for crop plantation along the sides of the structure. This has led to an increase in food and fodder security by 2.5 to 3 times.

Predictions show increased rainfall in western rajasthan - which is not something the community is prepared for since the extent of their indigenous knowledge may not support them in the case of floods. When asked about any new innovations in light of the recent spate of floods, Mr. Rahul Mishra said that now naadis are being built with an outlet to ensure that water in the outlets does not drain back in to the nadis.

Enhanced Adaptive Capacities of Village Communities of Mandla District, Ishan Agrawal, FES

Foundation for Ecological Security (FES) started work during the cooperative movement and not the ngo movement at a time when the then Prime Minister of India, Rajiv Gandhi spoke of how to convert degraded lands into more productive lands. FES' work has primarily focused on land and water conservation carrird out through watershed projects in common and forest lands. He showed some figures to explain how overall those communities with access to common lands have fared better than those without. One example of their work was in the Koria watershed in Rajasthan, milk sale was seen to be increasing despite fall in rainfall; this enabled the panchayat to intervene better. Their work in Mandla district has one long-term goal of having the people there eventually co-manage the Kanha sanctuary. In this district where soil erosion is rampant, studies conducted showed that the most recent 5-yr rainfall data was much higher and showed a departure from normal high when compared to 100-yr rainfall; last 5-yr departure was the highest. But the tribals living in the area say that the phenomenon of continuous rain for around 7-8 days called jhadi does not occur anymore and uncertainty in rainfall patterns affects their cropping patterns. Diverse crops
in the sloping landscapes is helping the community there to overcome such uncertainty in the rainfall patterns.

VI. ENHANCING LOCAL LIVELIHOODS

Climate Change: Vulnerability Assessment and Resilience Planning in Nepal Himalaya, Shuvechha Khadka, I-SET, Nepal

Ms. Shuvechha Khadka focused her presentation on a vulnerability assessment that was conducted on six villages selected for the project and presented the results. An initial scenario study suggested an increase in temperature and uncertainty in precipitation. The project, which was designed for a total of 16 districts was conceptualized around identifying who were the most vulnerable groups. For the vulnerability assessment, a two-pronged approach of looking at both physical and social systems was incorporated. A combination of social and physical parameters such as access to water, difficult terrain and access to health and education were studied and ranked to assess the most vulnerable community and groups within the communities. One problem that was common to most villages was that of youth migration and remittance being a source of income.

The issue of the lack of sufficient data to clearly capture the impacts of climate change in the identified villages brought to light the time constraints that were placed on the project by the donor. This brought up a related discussion on donor-driven projects and the type of constraints and challenges that they add to the adaptation conundrum. An important learning that emerged from the discussions is that climate change provides opportunities to rethink development, methods and processes.

Indian Himalayas Climate Adaptation Programme (IHCAP): An Overview, Mustafa Ali Khan, SDC

Mr. Mustafa Ali Khan from SDC provided a brief overview of the Indian Himalayan Climate Adaptation Programme, an initiative that the Swiss Development Corporation is carrying out along with Department for Science and Technology (DST). Its primary motive is to increase the resilience of Himalayan communities to impacts of climate change through science-based adaptation policy making. For this, the programme will target the Himalayan component under the NAPCC and state action plans falling in the Himalayan belt and aim for increased synergy between these two elements. Presently, they have started work in the state of Himachal Pradesh since it was identified as one of the most vulnerable and plan to expand to other states. Most of their work will happen in coordination with prominent academic institutions identified in the Himalayan states.

Climate Change: Challenge or Chance for Value Chains the Northeast India (Climate Change Adaptation Project, Northeastern Region), Heike Junger-Sharma, GIZ

Ms. Heike from GIZ presented on the work that GIZ was doing particularly in the area of climate proofing value chains in the north-eastern part of India. She presented several case studies to highlight the importance of this issue. This she did after establishing the type of climate

Residents of Hansapur, the most vulnerable village in the study by ISET in Nepal

impacts projected for different states as found is scientific literature. Rainfall is expected to increase in Sikkim and Nagaland whereas in Meghalaya, was expected to decrease. In the north-east where rice is a staple and 30 per cent of the area under cultivation is taken up by rice, a 1 degree increase in temperature could decrease yields by up to 3-7 per cent. It was also found that hybrid rice is more affected by such a rise when compared to traditional rice varieties and more water intensive as well. So, traditional rice varieties, of which there are more than 800 in the state, would also help in reducing methane emissions from rice cultivation is being suggested as an alternative option here.

The second case was that of muga and eri silk which are endemic to Meghalaya. Since these silk worms are produced within a range of 22-27 degrees, increasing such silk production is a viable option. This could also feed into the increasing demand for natural fibres. The third case was that of trout farming as a value chain in Meghalaya. Owing to the recently increasing instances of flash floods, trout farming has suffered. This can be reversed by promoting aquaculture that can be carried out in the land area surrounding the streams and by promoting angling tourism to add to income. Furthermore, aquaculture could strengthen need for sustainable use of water resource and water quality conservation.

Climate Resilience Through Community–Based Microinsurance, Nihar Jangle, Micro Insurance Academy

Dr. Nihar Jangle from the Micro Insurance Academy, which is a not-for-profit organization working in the area of community-based micro insurance mechanisms presented on the kind of integrated micro insurance options that they were testing with local communities.

The idea is to explain how the insurance would work to local communities and provide them with all the information on different insurance options covering health, livestock, crop and weather, all of them susceptible to climatic changes. Whether the individual or family choose to avail of the insurance, depending on their perception of the risks they faced is a choice that they make. Field studies have been carried out in two different districts in Bihar and Maharashtra, one drought-prone and the other flood-prone and the data that is being used is a combination of local data from rain gauges and weather stations locally installed and data bought from the MET department. As they take this forward, Dr. Jangle explained that they would do a baseline analysis report and would like to involve communities at every level when they design their business processes and insurance packages.

VII. CLOSING SESSION

Several issues emerged, some repetitively, touching upon different elements of the adaptation process during the four sessions of the workshop. This was succinctly captured in the final session when Mr. Chandra Bhushan asked each participant present to put forward one issue that needed to be prioritised and focussed upon in the adaptation debate. The responses were as follows:

- Demystify climate change adaptation and step back to demystify the climate challenge as well
- Reality check between state action plans and national plan on adaptation
- Examine funding strategy with respect to adaptation
- State level official should be reoriented to understand the issue of climate change adaptation
- Space and opportunity for community innovations to adapt
- Integrated programs at the Government and NGO level
- Community level/Autonomous adaptation needs to be mobilised
- Revisit methodologies - combination of outside and inside/indigenous strategies - broader/mainstreamed would help
- Adaptation has just been repackaged - same models that we studied in rural management
- Integrated planning that is coming out as a result of adaptation is good
- but planning at the government level and at the local level are different - so one needs to work at the local level long enough to understand these long-scale adaptation processes
- Let us not make it too complicated to implement
- Autonomous adaptation practices are already in place? - State and national policies should take stock of this and acknowledge what's already happening on the ground
- Main knowledge is already with people - local approach is the way forward

It was agreed at the closing that as a way forward:

- Minutes of the meeting would be circulated
- CSE would get back to all those present at the workshop with a report that captures the climate impacts that participants discussed and others from around the country and the region which could be compared with existing scientific scenarios to see what kind of overlaps and contrasting scenarios emerged from such an exercise.

Annexure – I

Workshop Schedule: Towards Climate Resilient Communities in South Asia: Emerging Policies and Practices (New Delhi, December 13 - 14, 2012)

DAY 1		
9:30 am - 10:00 am	Registration & Participant Introductions	
10:00 am - 10:15 am	Curtain Raiser on Adaptation	Sunita Narain, CSE
10:15 am - 10:30 am	CoP 18 Negotiations: Outcome and Implications	Chandra Bhushan, CSE
10:30 am - 10.50 am	National Action Plan on Climate Change	Indrajit Bose, CSE
10:50 am - 11:10 am	State Action Plans - State of Play	Unnikrishnan D Nair, GIZ
11:10 am - 11:30 am	**Tea**	
Coastal Vulnerabilities		
11.30 am - 11.40 am	Opening Remarks by the Session Chair	Chandra Bhushan, CSE
11:40 am - 12:05 pm	Addressing the Potential to be Harmed along the Indian Coast	Anurag Danda, WWF
12:05 pm - 12:30 pm	Strengthening Livelihoods in Coastal Areas	Sarojini Brahma, RCDC
12:30 pm - 12:55 pm	Sundarbans, Fragile Ecosystem - SHISs' Experience and Future Strategy	Mohd. Abdul Wohab, SHIS
12:55 pm - 1:20 pm	Climate Induced Coastal Vulnerabilities and Possible Response Options	A Arivudai Nambi, MSSRF
1:20 pm - 2:20 pm	**Lunch**	
Community Responses, Planning and Disaster Management		
2:20 pm - 2:30 pm	Rapporteur summarizes Morning Session	Sugandh Juneja, CSE
2:30 pm - 2:40 pm	Opening remarks by Session Chair	A Arivudai Nambi, MSSRF
2:40 pm - 3:05 pm	Climate Crisis: Community Perspective	Ramesh Sharma
3:05 pm - 3.30 pm	Technology, People and the Alluvial Flood Plains of North Bihar	Eklavya Prasad, Megh Pyne Abhiyan
3:30 pm - 3:45 pm	**Tea**	
3:45 pm - 4:10 pm	Community Managed Sustainable Agriculture: Pathway Out of Poverty	DV Raidu, Community Managed Sustainable Agriculture
4.10 pm - 4.35 pm	Local Adaptation Plan of WASH	Himalaya Panthi, NEWAH, Nepal
4.35 pm - 5.00 pm	Mainstreaming DRR and Climate Change Adaptation in Local Development Planning Processes	Bhathiya Kekulandala, Practical Action, Sri Lanka
7 pm	**Dinner**	
DAY 2		
Agriculture-Water Interface		
9:30 am - 9:40 am	Recap of previous day	Uthra Radhakrishnan, CSE
9:40 am - 9:50 am	Opening Remarks by the Session Chair	Chandra Bhushan, CSE
9:50 am - 10:15 am	Climate Adaptation with Eco-friendly and Alternative Agriculture	Tarik Sayed Harun, COAST, Bangladesh
10:15 am - 10:40 am	Resilient/Adaptive Agriculture in Flood Affected Area and Urban Climate Change Resilience: Case of Gorakhpur City	Shiraz Wajih, GEAG
10:40 am - 11:00 am	**Tea**	
11:00 am - 11:25 am	Water in a semi arid context: Challenges and Community Planning in a climate varying situation	Harish Daware, WOTR
11:25 am - 11:50 am	Harvesting Rain: A Sustainable Solution to Climate Change in Western Rajasthan	Rahul Mishra, GRAVIS
11:50 am - 12:15 pm	Rainwater Harvesting and Wastewater Treatment on CSE campus	CSE Water Team
12:15 pm - 12:45 pm	Reimbursements for participants	

12:45 pm - 1.45 pm	**Lunch**	
Enhancing Local Livelihoods		
1.45 pm - 1.55 pm	Rapporteur summarizes Morning Session	Indrajit Bose, CSE
1.55 pm - 2.05 pm	Opening remarks by the Session Chair	Ramesh Sharma, Ekta Parishad*
2:05 pm - 2.30 pm	Climate Change: Vulnerability Assessment and Resilience Planning in Nepal Himalaya	Shuvechha Khadka, I-SET, Nepal
2:30 pm - 2:55 pm	Indian Himalayas Climate Adaptation Programme (IHCAP): An Overview	Mustafa Ali Khan, SDC
2:55 pm - 3:10 pm	**Tea**	
3:10 pm - 3:35 pm	Climate Change: Challenge or Chance for Value Chains the Northeast India Climate Change Adaptation Project, Northeastern Region)	Heike Junger-Sharma, GIZ
3:35 pm - 4:00 pm	Enhanced adaptive capacities of village communities of Mandla District	Ishan Agrawal, FES
4:00 pm - 4:25 pm	Climate Resilience Through Community – Based Microinsurance	Nihar Jangle, Micro Insurance Academy
4:25 pm - 5:30 pm	Interactive Discussion:Mainstreaming Adaptation in the Region	Moderator: Chandra Bhushan, CSE

Annexure – II

Towards Climate Resilient Communities in South Asia: Emerging Policies and Practices
(New Delhi, December 13 - 14, 2012)

PARTICIPANT LIST

NAME	ORGANISATION	DESIGNATION	E-mail
Ms. Shuvechha Khadka	I-SET, Nepal	Senior Researcher	shuvechha.khadka@gmail.com
Mr. Himalaya Panthi	Nepal Water for Health (NEWAH), Nepal	Social Development Manager	himalaya@newah.org.np
Mr. Bhathiya Kekulandala	Practical Action, Sri Lanka Change Advocacy	Coordinator, Climate	Bhathiya.Kekulandala@practicalaction.org.lk
Mr. Tarik Sayed Harun	The Coastal Association for Social Transformation Trust (COAST), Bangladesh	Assistant Director - Core Program	tarik@coastbd.org
Mr. Ramesh Sharma	Ekta Parishad	Campaign Coordinator	ektaparishad@gmail.com
Ms. Sarojini Brahma	Regional Centre for Development Cooperation (RCDC)	Program Manager	Sarojinibrahma75@yahoo.com
Mr. Harish Daware	Watershed Organisation Trust (WOTR)	Manager	harish.daware@wotr.org.in
Mr. Raidu DV	Community Managed Sustainable Agriculture (CMSA)	Director	raidudv@gmail.com
Ms. Heike-Junger-Sharma	GIZ	Economist	heike.jungersharma@gmail.com
Mr. Eklavya Prasad	Megh Pyne Abhiyan	Managing Trustee	graminunatti@gmail.com
Dr. Mohammed Abdul Wohab	Southern Health Improvement Samity (SHIS)	Director	mawohab@yahoo.com
Dr. Anurag Danda	WWF India	Head, Sundarbans Programme & CLimate Adaptation (Coastal Ecosystems)	anurag.danda@wwf.panda.org

NAME	ORGANISATION	DESIGNATION	E-mail
Dr. Shiraz Wajih	Gorakhpur Environment Action Group (GEAG)	President	geag@vsnl.com
Mr. Ishan Agrawal	Foundation for Ecological Security (FES)	Senior Project Officer	ishan@fes.org.in
Mr. Satheesh Periyapatna	The Deccan Development Society	Director	satheeshperiyapatna@gmail.com
Mr. UnniKrishnan Divakaran Nair	GIZ	Programme Officer	unnikrishnan.divakaran@giz.de
Mr. Rahul Mishra	Gramin Vikas Vigyan Samiti (GRAVIS)	Program Coordinator	rahul@gravis.org.in
Mr. Mustafa Ali Khan	Swiss Agency for Development and Cooperation (SDC)	Policy Specialist, IHCAP	mustafa@ihcap.in
Dr. AR Nambi	M S Swaminathan Research Foundation (MSSRF)	Director – Climate Change Programme	anambi@mssrf.res.in
Ms. Vanita Suneja	Oxfam India Economic Justice	Lead Specialist,	vanita@oxfamindia.org
Mr. Ram Kishan	Christian Aid India Manager, South Asia	Regional Emergency	rkishan@christian-aid.org
Mr Sanjay. Vasisht	Heinrich Böll Foundation	Programme Advisor, Climate Change and Coordinator and Coordinator at CANSA	sanjay@cansouthasia.net
Dr. Nihar Jangle	Micro Insurance Academy	Project Leader	nihar@mia.org.in