



# The Climate Crisis

## People's Potential and Needs for Adaptation and Mitigation

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South Asia is particularly vulnerable to the effects of climate change. It is widely recognised that global temperature rises must be kept within a limit of 2°C above pre-industrial levels in order to prevent 'dangerous' climate change. Meanwhile, for many people from South Asia, climate change is already 'dangerous'. The impacts of current climate change, however, are and will continue to fall disproportionately on those with the least capacity to deal with the consequences. Around 50 of the poorest countries are producing less than one per cent of worldwide carbon emissions but these countries will take over 90 per cent of the burden caused by climate change. Enhanced international action to support developing countries to adapt to climate change – alongside ambitious mitigation actions led by developed countries – is therefore a matter of justice and equity.

Climate change and its impacts are affecting people - individuals and communities all over the world. People have been responding to the consequences of climate change based on the local and traditional knowledge. But the people who are hit the hardest are not adequately involved in policy discussions about mitigation and adaptation, either internationally, or locally. Lack of recognition and integration of people's knowledge is already leading to strategies that are not benefiting who need them most. Incorporating this knowledge is essential for achieving sustainable development.

To highlight the need for recognizing local people's strategies in adapting to climate change, a conference on "*The Climate Crisis – People's Potential and Needs for Adaptation and Mitigation*", was organized during 6-9 October 2009 in New Delhi, India. The conference supported by MISEREOR and Welthungerhilfe, focused on the local communities, their needs and priorities. It looked into various factors affecting climate change - the impacts and the challenges, with a focus on disaster preparedness and agriculture. It emphasized the need for integrating people's practices in developing adaptation strategies. The workshop also explored the innovative instruments that could increase people's participation in the development of climate change adaptation plans. The concept of justice was cutting across all the issues.

Local experiences on mitigation and adaptation were presented in the conference. Sustainable agriculture practices based on traditional knowledge clearly indicated the ability of local communities to adapt to climate crisis. Enhancing awareness, supportive mechanisms and instruments to cope with disasters were strongly advocated. Experiences on CDM projects in India, implemented by the private sector as well as the NGO sector, provided an understanding as to how CDM projects can be made more people-oriented. A panel discussion on the concept of justice, the underlying thread binding all the workshop discussions, evoked an interesting debate. Representatives from the governments of India, Bangladesh and Germany explained the stand taken by each government on the issue of climate change.

On the basis of the experiences, group discussions and interactions, participants developed a policy statement recommending the integration of people's needs and knowledge in preparing mitigation and adaptation plans. These recommendations are aimed to guide governments and NGOs, and provide input for the international negotiations on climate change.

This document is a synthesis of the deliberations of the conference. It includes examples of people's existing strategies for adaptation and their needs and priorities to deal with the changing climatic conditions in future. Recommendations based on intensive discussions on various issues during the conference have been highlighted at the end of each section. All presentations and documents can be downloaded from <http://www.igsss.org/ppt.aspx>.



## Final statement and recommendations

South Asia is particularly vulnerable to the effects of climate change. It is widely recognised that temperature rises due to climate change must be kept within a limit of 2°C above pre-industrial levels in order to prevent 'dangerous' levels of climate change. Meanwhile, climate change impacts are already visible on the lives of many people in South Asia, particularly on the poor, vulnerable groups, especially women.

On behalf of concerned NGOs working in South Asia and Germany on the needs and potential of people in adapting to climate change, we would like to put forward the following.

### Equal rights

Each and every citizen has **equal rights to common goods**, including the atmosphere. Therefore, those who use more than the share of the common goods they are entitled to, have to change their lifestyle.

1. We assume that 'common but differentiated responsibility' (CDR) will be the starting point of negotiations. The principle of 'greenhouse development rights' should guide the international negotiations.
2. All developed countries need to agree to continue Kyoto-protocol with appropriate changes reflecting clear, stringent targets aimed at reducing emissions. These are to be met in specified periods on the standards defined and agreed.
3. Climate change negotiations should put people first. At the moment, climate change is addressed mostly as a technical and a political issue. All measures related to adaptation and mitigation should start from the local people's potential and needs, respecting their dignity and right to development.

### Disaster preparedness

Increased frequencies and magnitude of natural disasters during the last two decades is a fact, therefore, **disaster preparedness** should get a larger focus.

4. Although a certain level of disaster risk management at community, district and national level is visible, the urgency is felt to refine further and speed up the implementation of disaster risk management policies, so that disaster risk management and response will be mainstreamed in the development processes.
5. National and international mechanisms need to be put in place that can provide adequate funds which can facilitate an accelerated strategy to identify hotspots of vulnerability. Also, the funds could help in setting up appropriate infrastructure and institutions for preparing for disasters caused by climate change. Although sophisticated research on climate change and long term projections and modelling is important, traditional knowledge and coping capacity of most vulnerable groups are to be an integrated part of it.
6. For SAARC (South Asian Association for Regional Cooperation) countries, a secretariat should be established to coordinate the national level initiatives and trans-boundary issues on climate change. This secretariat may be at Bangladesh as it is one of the most vulnerable countries in the region.
7. Policies and plans for resettlement for people in vulnerable areas should be developed well in advance, based on a rights perspective and with full participation of the local communities.

8. Micro-insurance for poor, vulnerable communities as a safety net for covering lives and livelihoods should be introduced, with support from national and international sources.

### **Food security**

The impact of climate change has already caused a reduction in productivity and loss of land under agriculture. A future reduction in agricultural and fisheries production which is predicted will greatly threaten **food security**. This in turn will lead to loss of livelihoods, especially for small and marginal farmers.

9. Although agriculture and livestock rearing contribute to greenhouse gas emissions, they are also essential for food security especially for small scale farmers. They provide livelihoods for the majority of the people in South Asia, also ensure biodiversity and the maintenance of rural environments. Hence, mitigation activities should focus across sectors such as transport, land use change, industrialized agriculture and livestock, and industry.
10. Adaptation should rely mainly on sustainable agriculture practices (which even contribute to the reduction of green house gases) and local solutions such as cropping and rearing local varieties and breeds, maintaining diverse production systems and the management of natural resources based on traditional knowledge. External technologies for adaptation are expensive as they are often owned by private corporations and may not be adaptive under local conditions.
11. Developed countries should provide technology and resources to the developing countries, as required. Developing countries have a right to have their needs for adaptation and mitigation met as compensation for the effects of the climate change which has not been caused by them.

### **Clean Development Mechanism**

We recognize that the **Clean Development Mechanism (CDM)** provides the Annex 1 countries a means to continue polluting and buying their way out of a problem created by them in the first place, at a cheaper price. However, we also realize that the CDM projects have come to stay because of their overwhelming support by national governments of developing countries. Hence we call for a structural change in its implementation in the post Kyoto phase.

12. The UNFCCC (United Nations Framework Convention on Climate Change) should impose a limit to which CDM projects in developing countries can be used to offset emissions by developed countries, as CDM is not the real solution to the climate crisis.
13. The UNFCCC should register projects that largely benefit the marginalized communities with priority. Current CDM projects do not necessarily guarantee sustainable development. In fact, several studies indicate that not only are measures for sustainable development being violated, but also that several such projects negatively affect the survival and livelihood needs of grassroots communities.
14. The UNFCCC must put in place special regulations to encourage the non profit sector to enter the CDM market with relevant community based technologies. Community based CDM projects are structurally disadvantaged, as they outreach already low carbon consuming societies. Hence, special efforts must be made to facilitate their participation in the CDM.
15. Effective measures should be taken to build capacity for undertaking CDM projects in now under-represented countries.



Photo: Rama Krishna Mission Ashrama, Kolkata

## Climate Change in South Asia

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South Asia is known to be the most disaster prone region in the world, supporting a huge population of about 1.6 billion, which is likely to exceed 2.26 billion by 2050. Geographic location with high population density and deeply embedded poverty renders South Asia as the most vulnerable region to the impacts of climate change.

Climate change is already taking place. Climate change has already deeply affected the economic growth and development of South Asian region, although the per capita green house gas (GHG) emissions in this region are low. The impacts of higher temperatures, more variable precipitation, more extreme weather events, and a rise in sea level are being felt and will continue to intensify. Increased risk of floods and droughts is expected to have a severe impact on economies which rely mainly on agriculture, natural resources, forestry and fisheries sectors. The number of storms with more than 100 mm rainfall in a day is reported to have increased by 10 percent per decade (UNEP 2007). In South Asia alone, 2.5 billion people will be affected by water stress and scarcity by the year 2050 (Human Development Report, 2006).

Food security is the primary concern in the region since most of the rural poor depend on agriculture for their livelihood. Agriculture is the mainstay of several economies in South Asia and continues to be the single largest contributor to the gross domestic product (GDP) in the region. Three-fifths of the cropped area is rainfed, and rainfed agriculture is especially vulnerable to climate aberrations. While direct impacts are associated with a rise in temperatures, indirect impacts due to changes in water availability, declining soil moisture and higher incidence of pest and disease are likely to be felt. According to various calculations, one degree rise in temperature will decrease the yield of rice by 10% and increase irrigation demand for agriculture in arid and semi-arid regions by 10%. The most dramatic negative impacts are expected in the arid zones and in flood affected areas, where agriculture is already at the edge of climate tolerance limits. The most significant impacts are likely to be borne by small-holder rainfed farmers who constitute the majority of those dependant on agriculture and also have less capacity to adapt to climate variability and change.



*Does anybody care if Bangladesh drowns?*

Dr. Anwara Begum Shelly,  
Caritas, Bangladesh

The most extreme form of climate disaster will be in the form of desertification, inundation or salinisation, rendering land unfit for human habitation. A rise in sea level could force millions of people to relocate or migrate. It is estimated that around 60 million people in South Asia will be facing threats of coastal floods. In Bangladesh, which has a direct inundation impact owing to its low lying areas and propensity to floods, around 30 million people are expected to become climate migrants by 2100.

The changes in climate are already having major impacts on the lives and livelihoods of millions of poor people. Effective disaster preparedness can considerably reduce this impact. And many countries are getting better at preparing for disaster and reducing risk. Bangladesh, for example, has learnt from experience that investing in disaster preparedness can save many lives during a cyclone.

People are coping with current levels of climate variability by adopting new, different ways of farming, for example by changing cropping patterns, using drought/saline resistant varieties, managing natural resources optimally etc. However, the capacity to adapt to variations in the climate, varies depending on the economic resources, access to technology, information and skills, infrastructure etc. Moreover, extreme poverty and poor living conditions worsen the human capacity to cope with these changes.

Climate change impacts are pervasive, touching on every facet of the environment and human life. The developing countries, particularly the poor are the most affected though they are not the ones responsible for creating the problem. But, they are the ones on the frontline of climate impacts, making climate change an issue of people, an issue of justice, and more importantly, an issue of life on the planet.

# Disaster preparedness

People in some parts of the world are already facing the effects of climate change, losing lives and livelihoods. A recent flood in Karnataka and Andhra Pradesh in India during October 2009, for instance, rendered an estimated 675,000 people homeless. Disasters like these, which scientists say will be occurring more frequently, show how important it is to keep in mind that climate change, first and foremost, is about people.

One way to reduce these impacts is to get prepared before it occurs. Right now, many communities are helping themselves and are involved in initiatives that help them to face disaster. They serve as useful examples that can motivate other communities come to grips in dealing with climate change. Even though many communities realize fully that action is imperative, they cannot prepare for disaster on their own. They need support to prepare themselves to reduce the risks of disasters.

## Sensitising communities

Response to a disaster is mainly a reactive one. Local communities in the same way as the external agencies, try to tide over the problem with temporary measures. Most often, soon after a disaster strikes, emergency funds flow from the governments and relief organisations in the form of basic goods. The entire government machinery is geared up to manage the logistics. The focus is largely on helping people with short-term relief. Hardly any efforts or investments are made to help people thereafter in rebuilding their lives. Even the communities seem to be satisfied with the relief received and are less inclined in investing in adaptation and preparing for future disasters.

What is needed goes beyond mere survival. To reduce vulnerability, local communities need to be sensitised on the need to be prepared. As they are the ones to deal with disasters and know what is best for them, local governments should involve them, integrating their knowledge in developing long term plans.

The experience of Rama Krishna Mission (RKM), an NGO in Sunderbans, located in the eastern part of India, shows how communities could be sensitized and prepared for disasters. Sunderbans is highly vulnerable to disasters like cyclone, flood, and salinisation. The records of the last ten years indicate that at least one or two major

Photo: GEAG



Floods are becoming more common in Northern India.

*People should be involved in all the development processes, not just in disaster preparedness.*

Dr Manas Ghosh, Rama Krishna Mission, West Bengal



disasters have struck this region each year, affecting thousands of lives. The May 2009 cyclone “Aila” has affected more than two lakh people and two lakh acres of cultivable land.

Of the 104 islands in the Sunderbans, human habitation and cultivation has been possible on 54 islands, by clearing jungle and protecting saline water by building earthen embankments, which are also highly vulnerable to climate change. However, embankments, which run to a length of about 2200 km, are the lifeline of the local communities. Hence, most of the disaster management activities continue to focus on strengthening embankments, which is a temporary measure to address the problem.

Experience has shown that mangroves anchor the soil firmly and have a large potential in decreasing vulnerability. Mangroves serve as a long term measure to deal with floods. Through its community based disaster management programme, RKM promoted mangroves in four villages of Sunderbans, which are highly vulnerable to disasters. Communities were trained on scientific cultivation and protection of mangroves. They were involved in identifying risks and in planning the needed activities to deal with these. A task force was formed and their capacities strengthened to take necessary action. As a result, people are motivated to adopt long term measures such as land modeling and land shaping; and adopting local practices like preservation and multiplication of saline resistant varieties; community seed bed raising; double transplanting and relay cropping.

To bring about the required change, awareness and sensitisation is needed at various levels. This could be achieved by sharing knowledge and educating people at various levels. The Centre for Environment Education (CEE), for instance, took a strategic path of educating different actors in the community about climate change. Documents on climate change impacts were produced and shared. A Management Education Centre on Climate Change was started in the University of Gujarat. The climate change education campaign, ‘Pick Right’, was specially designed for students, reaching out to over 200,000 schools in India.

### **Responding to communities needs**

Despite a great number of initiatives taken up by the communities already, measures are needed that go beyond their capacity to realize. How to deal with great numbers of displaced people? It calls for policies and plans for the resettlement of people in vulnerable areas, which need to be developed well

*Trained local communities in action on their lands*

Photo: Rama Krishna Mission Ashrama



in advance. Knowledge on which areas are most vulnerable is also needed. Also necessary are the early warning systems.

Preparing for disaster is effective only when linked with development. An example of how to link development to disaster management is the establishment of disaster preparedness centers. These should function all round the year. While these should ensure necessary provisions in times of disaster, they could perform other functions (like library, school etc.) during other times. It is important that the disaster preparedness centers should be made sensitive to people with special needs - women, children, the aged or the mentally and physically challenged.

Preparing a disaster management plan for villages involving local communities is crucial. Soon after the disaster has struck, there is a huge fund flowing for relief measures. How to ensure that these funds are used for preparing for disasters rather than relief alone? What about the livelihoods of these people? Are there enough provisions to address the immediate livelihood issues of the communities? For instance, making flood or drought resistant seeds it is one accessible in times of need is crucial in getting people on their feet. All these matters need to be addressed, with communities needs as the focal point.

Building safety nets is another way of preparing for disasters. Insurance-based mechanisms can help the poor from falling into poverty traps after individual shocks and therefore can act as safety nets. In India more than 60% of the population live on income of less than US\$ 3 per day and don't have a regular income. This excludes them from accessing direct benefits from insurance schemes. However, mechanisms of the insurance system can be applied to help improve support mechanisms for dealing with disasters. Since the poor can not afford, public funds have to be made available to them. The government could support by building emergency funds or providing an insurance system to the poor, instead of being limited to providing subsidies when the disaster has occurred.

### Micro-insurance, a mechanism to prepare for disaster

One way of preparing for disaster, is not to be absolutely devastated after it has struck. Insurance can compensate for damage done. Through micro-insurance, compensation is now also available to people with incomes as low as three dollars a day.



*“Micro-insurance has far greater potential,”* says Thomas Loster of Munich Re Foundation, a foundation of the Munich Re group that provides re-insurance as well as primary insurance. *“Communities that have taken action before disaster has occurred could be given compensation immediately. As it is, governments are going to have to pay enormous amounts of money anyway in dealing with the effects of climatechange. If they decide to spend some of it on those communities that have disaster preparedness plans in place, this would stimulate communities in getting prepared, and also help them get back on their feet much faster. There would not be a need to endlessly wait for procedural formalities like assessment of damage, filling up forms.”*

Pilot solutions do exist for disasters. In Ethiopia, for example, people can claim insurance when there is no rain – even before disaster strikes. Similarly in Indonesia, when water rises above 950 meters, people can claim their insurance. When it comes to climate change issues, microinsurance has been developed only in rare cases. These cases could be expanded on and made to fit local needs.

(To view powerpoint presentation click on <http://www.igsss.org/ppt.aspx>)

## Recommendations

- Disaster preparedness (DP) and climate change adaptation need to be given priority and sufficient resources (for eg. Community Disaster Fund) should be allocated. Disaster preparedness need to be linked to development programmes.
- Disaster management planning to be made compulsory for local bodies.
- Identify hot-spots and conduct research.
- Disaster management or disaster preparedness should be mainstreamed in national policies, education and all types of developmental activities.
- People Led Disaster Preparedness (PLDP) programmes need to be developed, emphasizing traditional knowledge.
- People's awareness on the impacts of climate change on various facets of their lives including social life and their capacities on disaster preparedness need to be strengthened.
- A Secretariat need to be established to coordinate the national level initiatives and ensure regional and trans-boundary issues. The Secretariat may be located at Bangladesh as it is one of the most vulnerable countries in the area.
- The Disaster Preparedness centers should be able to provide basic emergency services like water, sanitation, health and should be utilized for multipurpose services on a regular basis (school, library, youth organization, health centre, etc.)
- NGOs, CSOs, CBOs and POs should collaborate to build support or solidarity systems –put regulation for micro-insurance in place.

# Adaptive strategies of communities

Nearly half of the 2.5 billion people in developing countries rely on agriculture for their livelihood. In India, this is 60 percent. All this local agricultural activity provides food to an enormous amount of people. With agriculture being the major livelihood for large sections of people, the extent to which the sector is expected to suffer from climate change in the years to come, is a matter of immediate concern. If scientific predictions are correct, an ever increasing amount of floods will wash away more and more harvests. Droughts will lead to failed harvests, and rising temperatures will result in declines in yields. The increasing unpredictability of the weather will make it harder to decide when to sow and when to harvest. Already crops are suffering because they do not flourish under current temperatures as they did before. The accumulated loss of agricultural produce is expected to be huge.

## Farmers knowledge on adaptation

Sustainet India, a network of a number of NGOs working on sustainable land-use, studied farmers' existing adaptive strategies and their needs for adaptation to changing climate conditions. The study conducted in five states of India (Andhra Pradesh, Rajasthan, Maharashtra, Uttarakhand and Orissa) brought out some interesting results. (<http://igsss.org/ppts/Sustainet%20CC%20study.pdf>)

Farmers have a lot of knowledge on climate, and also about the way it is changing. They perceive climate change in their own way. They know that the temperatures have risen, there are less number of rainy days with high intensity, and also less rains during the winter season. They observe more untimely rainfall, making it hard to decide when to sow. They are aware that the rainfall is getting delayed leaving the season shorter for the crops to grow. Irregularities in temperature and rainfall are leading to lesser water availability, greater soil erosion, more pest attacks and declining yields resulting in food and fodder shortages.

One of the most common problems faced by farmers across regions is water stress. Farmers are coping differently in different regions. For instance, while farmers in Rajasthan revived the traditional water storage systems, those in Andhra Pradesh started regulating the use of ground water. Switching to less water consuming crops and hardy crops like millets, adopting practices like mixed cropping and organic farming were other measures used to cope with water stress conditions, across regions. For instance, farmers in Uttarakhand revived the traditional form of mixed cropping called Baranaaja, where twelve crops are grown on the same piece of land.

Though farmers are dealing with the climate change in their own way already, it is important to support them to prepare better to deal with the changing climatic conditions. Farmers need information, for example, on weather changes or access to drought or flood resistant seeds. There are many government services available, also locally, but often these cannot be accessed by farmers. Meteorological data for example, hardly ever reaches the farmers.

*Farmers in Rajasthan reviving their traditional water storage systems*



Photo: Sustainet India

Other support that can help reduce risks and vulnerability include, affordable crop insurance, opportunities to diversify income, subsidies on sustainable agricultural practices and attention to infrastructure at the local level, to improve roads, communication and education. Efficient extension services on climate change issues would also greatly benefit farmers. If more farmers are familiar with the concept of climate change, it will help them further develop strategies to adapt. Links between government programmes and farmers' needs are mostly missing presently and need to be established.

In the absence of supportive mechanisms, farmers will have to spend resources in adapting their practices. A shift in crop choice, for example, requires farmers to buy drought or flood resistant seeds of the new crop, which may not be available locally. Small scale farmers who are increasingly vulnerable and also adapting constantly on their own to changed conditions, should get special consideration and benefits under the adaptation process. This way, they can adopt their sustainable agricultural practices (SAP), to suit and survive under the changed climatic conditions.

### **Benefits of local knowledge**

Local people often know more about their environment, livelihoods and how their society functions than those from outside. They can provide useful information on local methods for solving problems, for example, soil infertility or low crop yields. Incorporating this knowledge and allowing local ideas to guide development is a pre-condition to achieve sustainability.

Farmers have been developing location specific practices in agriculture, natural resource management, human and animal health care based on their traditional knowledge. Experience shows that farmers who use, for example, traditional seeds are far better equipped to survive in changing conditions. For instance, local rice varieties survived better, even after being submerged under water for 10 to 15 days during the *Aila* cyclone, in certain areas of Bangladesh. Recognizing this, farmers have initiated rice breeding to acquire strong local varieties, and are sharing and exchanging seeds among themselves.

### **Sustainable agriculture, an opportunity**

Although agriculture is most affected by the impact of climate change, at the same time it considerably contributes to green house gas (GHG) emissions. Several studies have indicated that growing rice in submerged conditions emit a considerable amount of Methane, an aggressive GHG. Chemicals used in agriculture are also a source of emissions both directly and indirectly. Nitrogen fertilizers, for example, emit nitrous oxide, another very aggressive GHG. Therefore, the emissions mainly of large scale, industrialized agriculture make around 14% of global GHG emissions. If land use changes are included, the total contributions add on to around 30%.



*‘ Farmers are often not aware of the concept of climate change. But they do know a lot about changes in weather patterns. ’*

Dr. Poonam Pande,  
Sustainet

It is important to recognise that there are alternative forms of agriculture which do not rely on high external chemical inputs. Use of organic manure; use of local species of crops; growing paddy with less water by adopting approaches like SRI (System of Rice Intensification); adopting diversified cropping instead of mono-cropping; integrating animals with crops for better recycling; using less-energy intensive technologies etc., are some of the practices of a low carbon agriculture. Mitigation being a part of adaptation, most of these alternative and adaptive practices which result in increasing soil carbon, also mitigate the climate change effects. Soils rich in organic matter, for example, act as carbon sink, helping in capturing atmospheric carbon.

A large number of small scale farmers in the South Asian region already follow such environment-friendly agriculture practices. They are playing a key role in maintaining diversity. A diverse natural environment helps in mitigating the problem to a certain extent. Their contribution towards mitigation brings forth the need for recognizing their practices as a service to society which should be honoured and supported, for example, by public funds.

Many solutions proposed to reduce emissions and to mitigate the effects of climate change do not greatly benefit people. Often, the solutions are 'more of the same', extending existing technologies, practices and policies. Use of more chemical fertilizer to increase yields, for example, is not a solution to reduce emissions. Similarly, afforestation programmes meant to increase the tree cover to capture carbon from the atmosphere, may lead to displacement of people from their own lands. Interventions should therefore be in tune with local ecology, local culture and local practices. Institutional mechanisms and investments are needed to safeguard the interests of local communities. New policies need to be integrated into the existing ones, and policies of all the concerned ministries should be in tune with the broader national policy.

Realising the importance of local situations also means that developed countries and institutions should not force small producers to shift from food crops to non food, commercial crops. Rather, the focus should be on local food production systems which are less carbon intensive, on integrating decentralized systems of production, processing and distribution of food and relying on local resources and knowledge.

*Farmers practice mixed cropping and millet growing to adapt to changing climatic conditions*



Photo: AME Foundation

## Recommendations

- Food production contributes to GHG emissions but is essential for food security. Although production techniques can be improved, mitigation should focus on other sectors such as transport, chemical agriculture and industry.
- All ministries must ensure that their policies are in tune with their National Climate Change policy.
- Chemical agriculture practices are harmful to the soil and also contribute to GHG' emission and climate change. Subsidies currently given to chemical agriculture which contributes to GHG be stopped and at least the same amount to be invested for non chemical sustainable agriculture.
- Institutional mechanisms for the promotion of sustainable agriculture practices to be developed.
- Investments for research and promotion of sustainable agriculture to be made.

# CDM for people's development



Photo: LAYA, Andhra Pradesh

*A sponge-iron plant in Jharkhand, a CDM approved project.*

The Clean Development Mechanism (CDM) is an arrangement under the Kyoto Protocol which allows industrialised countries committed to reducing greenhouse gas emissions (called Annex A countries) to invest in projects that reduce emissions in developing countries. This serves as an alternative to more expensive emission reductions in their own countries. CDM projects are envisaged to address the social, economic, environmental and technological well being in the areas where they are being implemented and to contribute to sustainable development goals.

Developing countries require substantial and effective financial support and technology transfer from the developed countries, to help them slow-down and ultimately reverse their large expected increases in emissions. Developing countries like China and India have a large potential for taking up CDM projects and have been supporting CDMs owing to its monetary benefits. With 26% of the world's total of 1691 projects, India is only next to China in implementing CDM Projects.

## **Are local communities benefiting?**

The CDM projects are mainly owned and controlled by the private sector with a clear profit motive. The share of unilateral projects is large without the involvement of finance and technology from Annex I countries. Excepting for some benefits due to infrastructure and employment opportunities created during the initial period, the local communities have not benefited largely through these projects. These were some of the findings revealed in a study conducted by the NGO, LAYA in four states in India. About 350 Project Design Documents were reviewed and seven CDM projects were studied in detail. ([http://igsss.org/ppts/Laya%20study%20-%20Money\\_For\\_Nothing.pdf](http://igsss.org/ppts/Laya%20study%20-%20Money_For_Nothing.pdf))

In many cases, the projects even had a negative impact on local people and their livelihoods. One of the case studies on the waste recovery project in Jharkhand, brought out that carbon dust, fly ash, charcoal released from the project unit settled everywhere. As a result, paddy production almost halved to an extent that it could not suffice for the entire year. Livelihood resources primarily mahua, lac and tendu leaves which have been sustaining these communities since ages, were depleted. Toxins from carbon, dust and smoke have caused the loss of pasture land and livestock. Fish culture, once thriving, does not function any more owing to carbon settling at the bottom of the pond.

Most CDM projects violated promises to aid sustainable development. People were neither informed about the project nor benefited from them in any way. There was no people's involvement at any stage. Most stakeholder meetings overlooked community participation. Currently, CDM projects are a way of making money by the industries and are market driven to a degree by which they go against the interests of the poor. Industries and not the communities are the real benefactors of these projects. For example, ITC a large company in Andhra Pradesh earned more than 1.2 million credits through CDM projects, without benefiting the local people, substantially. Lack of accountability, monitoring mechanisms and transparency are helping industries to get away without realizing the development objectives envisaged in the Project Design Documents.



## Learning the hard way – Experience of REDS

REDS, is one of the two grassroots organizations in India, who succeeded in registering a CDM project. REDS entered the world of CDM project with a twin focus of reducing green house gas emissions and promoting renewable energy. The objective was to install 180,000 photovoltaic lamps in 60,000 rural homes and community centers that had no electricity.

It was a new, challenging and a learning experience for REDS. A lot of preparatory work involving field visits, discussions, consultations and extensive surveys had to be done. External expertise had to be hired to be able to prepare the Project Design Document. All this meant exorbitant expenditure. Finding money for all the preparatory work was not easy. However, REDS decided not to accept both corporate and donor funding in order to keep its freedom of choice. Most donors are still in need of understanding CDM from a business perspective.

Efforts were made to build the in-house expertise. REDS started attending a few CDM events both in India and in other countries, to equip themselves with the technical know-how. A strong business sense was built in the management of the organization. REDS also developed keen understanding of some of the business tricks applied by private companies in managing CDM projects.

REDS has come a long way learning some hard lessons in the process. Presently, it is in the process of negotiating a loan from the Fair Carbon Fund and similar other sources. It is being invited to share its experiences on CDM projects with other NGOs. It is also a matter of pride that REDS has become one of the official supporting NGOs of the prestigious Gold Standard Foundation in Switzerland.

(To view powerpoint presentation, click on <http://www.igsss.org/ppt.aspx>)

If communities have to be benefited, CDM projects need to be developed from the ground, involving people. Being closer to the communities, NGOs are in a better position in understanding communities' needs. They also know how to involve people in the processes and how to organise the sharing of the benefits. However, there are a number of reasons which limit NGOs in entering the CDM market. For instance, REDS (Rural Education and Development Society) is one of the very few NGOs which implemented a CDM project in Karnataka. The REDS experience (See Box) brings forth a number of limitations, like the lack of technical expertise, lengthy formalities in processing and the high costs in the preparation of the Project Development Document. This apart, the present framework and the expected scale of operation also make it difficult for an NGO to take up CDM projects.

### Community development as the goal

Though CDMs are a means of earning carbon credits for developing countries, in a way, this mechanism provides the rich and the developed countries a means to continue polluting and buying their way out of a problem created by them in the first place, at a cheaper price. As buying credits is a cheaper option for developed countries, there is a danger that this mechanism may be used an opportunity to emit more greenhouse gases. But now that CDMs are already in place, flexibility in the existing frameworks and improvements in procedures need to be looked into.

Ethically, CDM projects should share their revenue for the community's welfare. In almost all CDM projects, prior to their implementation, the local communities have been victims of pollution from these industries especially due to green house gases emissions. They need to be compensated by the industries which take up CDM projects. This can happen only with raising community awareness, better transparency and effective monitoring.

CDMs can do more harm than good to the local communities, when local culture and local ecology are ignored. For instance, when tree plantations are taken up in the project areas, the choice of trees is largely dependant on their utility to the industry. Benefits to local people and ecology are totally ignored. As a result, the plantations that are being promoted add to the negative environmental impacts, thus defeating the purpose of CDM projects. It is therefore crucial that projects need to be developed from the ground, and that local communities are involved in the preparation and implementation of the projects.

The concept of sustainable development, as defined by the national government, is vague, and so are the indicators that help to monitor. In the absence of clear cut development indicators in the Project Design Documents, there is enormous scope for the implementing agencies to back out of their development commitments. Who is accountable to the communities when the projects are not monitored in terms of development benefits? There is a need for stakeholders' accountability and the need for community governance.

### **Low carbon lifestyles**

People in developed countries should reduce their consumption patterns in order to reduce green house gases in the atmosphere. Innovative models for low carbon life style need to be developed. Education and awareness should be followed by action. No amount of education is going to bring down the carbon emissions if we continue to follow high carbon intensive lifestyles. This holds true even to the urban rich in developing countries. Traditionally, South Asian families have been having a low carbon lifestyle which can be observed even today, in the rural areas. While we maintain the focus on CDM, there must be more awareness on these factors as well, for achieving the greater purpose of reducing GHG.

#### **General Recommendations**

1. The UNFCCC should register projects that largely benefit the marginalised communities with priority. Current CDM Projects do not necessarily guarantee sustainable development. In fact, several studies indicate that not only are measures for sustainable development being violated, but also that several such projects negatively affect the survival and livelihood needs of grassroots communities.
2. The UNFCCC must put in place special regulations to encourage the non profit sector to enter the CDM market with relevant community based technologies. Community based CDM projects are structurally disadvantaged, as they outreach already low carbon consuming societies. Hence, special efforts must be made to facilitate their participation in the CDM.
3. The UNFCCC should impose a limit to which CDM projects can offset emissions by developed countries as CDM is not a real solution to the climate crisis.
4. There are evident changes in the factors that impact agriculture, like rainfall and temperature. Hence, the small farmers who are increasingly vulnerable should get special consideration and benefits under the adaptation process. This way, they can adopt their agricultural practices (SAP), to suit and survive under the changed climate. Also, these small peasants are adopting and using low carbon intensive technologies. Keeping in mind their vulnerability and their current practices, it is recommended that UNFCCC should devise mechanisms for the benefit/compensation of the small farmers under mitigation and adaptation mechanisms (if necessary, devise one).

## Recommendations for improvement of CDM procedures

- Most organisations in the non profit sector are unable to meet the prohibitive transaction costs that are involved in the registration process. Hence, special policies should be put in place when it comes to UNFCCC fees and other costs.
- In addition to small projects, a special category of 'micro' scale projects such as in case of electricity generation up to 5MW needs to be introduced.
- Bundling of projects across a mix of suitable methodology options should be allowed, in order to ensure energy access. For example, a mix of hydro, solar, wind and biomass technologies could take care of the entire livelihood requirements of villages which lack access to the grid. This would also ensure a community owned and managed local energy system which would trigger and support other livelihood activities, thereby ensuring sustainable development.
- While calculating emission reductions, the energy demand for basic needs (suppressed demand) of the community should be considered, rather than consumption of energy until now. In low carbon consuming societies the energy use is far below their actual need. Hence, this approach will take into account the development needs of the community.
- Only projects which include clear and measurable impacts on sustainable development in the project design document (PDD) should be accepted. Validation of PDDs and monitoring mechanisms to ensure sustainable development should be put in place.
- A defined number of stakeholder meetings appropriate to the size of the project, should be mandatory during the project period. Real participation by the stakeholders, especially community representatives, must be ensured, in a language that they understand. The Designated Operational Entity's (DOE) annual verification must include a meeting with the local communities impacted by the CDM project.
- A fair percentage of the profits from CDM projects should be reserved for communities participating in the CDM project.
- Effective measures should be taken to develop the capacity of those countries where the CDMs have been underrepresented.

# Climate Change Policies

The risk of serious climate change impacts suggest that urgent action is needed to significantly reduce green house gas emissions in the coming decades. This will require greater policy attention to accelerate the up-take of existing “green” technologies and practices. Large reductions in GHG emissions are achievable if climate change objectives are integrated in relevant policy areas such as energy, transport, building, agriculture or forestry, and other measures to speed technological innovation and diffusion.

## National Action Plans

The Least Developed Countries (LDC) which are most vulnerable to the adverse effects of climate change, have limited capacity to fund adaptation activities. The United Nations Framework Convention on Climate Change (UNFCCC), therefore developed a new mechanism, the National Adaptation Programme of Action (NAPA), to help LDCs to identify priority activities that respond to their urgent and immediate needs to adapt to climate change. The NAPA focuses on identifying priority activities building on the existing coping strategies at the grassroots level. NAPA is envisaged as a process, and not merely a document.

The Government of Bangladesh prepared its NAPA during the year 2005 identifying key adaptation needs. A review of the NAPA prepared by the Bangladesh government revealed several irregularities in the way it was prepared. Besides studying the limitations, the seven member review team also put forth several recommendations to make NAPA more people-oriented (See Box).

Several stakeholders need to work together while developing a people-oriented strategy or policy. It is important that NGO's which are closer to the people be proactively engaged with the government and

## Towards formulating *People's NAPA*

The Government of Bangladesh prepared and submitted the National Adaptation Programme of Action (NAPA) in 2005. This document was prepared as a response to the decision of the Seventh Session of the Conference of the Parties (CoP7) of the United Nations Framework Convention on Climate Change (UNFCCC). The NAPA document analyzed the context of the problem, the framework for adaptation programme, identified key adaptation needs and listed down 15 priority projects.

The NGO BARCIK from Bangladesh, in co-operation with other NGO and local communities, reviewed the NAPA document. The seven-member multi-disciplinary team reviewed as well, several strategic documents of Government of Bangladesh, eg., the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), the Integrated Coastal Zone Action Plan, the Comprehensive Disaster Management Programme (CDMP). BARCIK's several reports on agro-biodiversity works and reports of other NGOs. Several field visits were also made. The team came up with suggestions for developing “people's NAPA”, based on the suggestions and needs of concerned communities.

The consultative review process brought out several missing elements. The document failed to recognize people's knowledge, did not consider the local adaptation and mitigation strategies to climate change; proposes afforestation but not rehabilitation and strengthening the conservation of existing natural forests. The NAPA document proposes the flood and tidal water management strategies which have failed and also aggravated water logging problems in the past. A special action plan considering the current livelihood strategies of communities is also missing.



help them in integrating people's needs and perspectives in their policies and programmes. Together, it will be much easier to achieve the development objectives.

India developed the National Action Plan on Climate Change (NAPCC) during September 2008. The NAPCC is a country document prepared by developing countries, with a national strategy on climate change with regard to adaptation and mitigation (reduction of greenhouse gas emissions) both domestically and in the context of global



Photo: BARCIK, Bangladesh

*Local adaptive practices like floating agriculture need policy attention*

arrangements under the United Nations Framework Convention on Climate Change (UNFCCC). The NAPCC includes eight Missions of which, two are focused on 'Mitigation' and five on 'Adaptation'. In addition, India has 24 other "Critical Initiatives" in the anvil, for which detailed plans and an institutional framework is being prepared.

While it is encouraging to see sectoral specific missions being prepared, which various ministries and departments will implement, it is also a matter of concern whether the mission objectives go in hand with those of the departments. For instance, the mission on sustainable agriculture cannot address the issue of GHG emissions, if the department continues to promote chemical fertilizers which adds to carbon emissions.

Following were the recommendations made in preparing a Pilot People's NAPA Process Document

- Local, traditional varieties which withstand conditions like salinity, flood and drought need to be promoted and not the high yielding varieties.
- Conservation of natural forests need to involve forest dependent people.
- Conversion of agricultural land for agro-forestry purposes need to be stopped.
- Traditional community management systems should be recognized and strengthened.
- Farmers need to be supported with capacity building and resource management.
- Farmers and other primary resource users should have direct access to various funds like Research fund, land fund and crop fund.

As next steps, the Pilot NAPA Process Document will be handed over to the Ministry of Environment and Forest of the Government of Bangladesh. The document will be widely shared to promote awareness among various sections of the community including media. (<http://igsss.org/ppts/BARCIK-Summary%20report%20on%20NAPA%20study.pdf>)



## Policies and perspectives of the governments

### Bangladesh

Mr. A S M Firoz, Member of Parliament, Government of Bangladesh put forth his government's views on the issue of climate change. Developed countries bear the primary responsibility for GHG emissions and developing countries should not be required to bear a disproportionate part of the costs of taking action. Even today, developed countries have much higher per capita emissions and global share of emissions compared to the developing countries. Current concentrations of greenhouse gases in the atmosphere are primarily the result of economic activities in the developed countries and it becomes their responsibility to pay compensation for the South Asian countries. Common But Differentiated Responsibility (CBDR) and the Polluter Pays Principle (PPP) should be followed with historical responsibility.

The Government of Bangladesh is taking several measures to address the problem of climate change. In September 2008, the government prepared a ten-year Bangladesh Climate Change Strategy and Action Plan (BCCSAP). Also, a Climate Change Trust Fund with Tk. 700 crores (US \$ 100 mn.) has been set up.

### India

Talking on the issues and challenges of climate change in India and the measures taken to address this problem, Mr. Mauskar, Additional Secretary, Ministry of Environment, Government of India, said that contribution of India to the cumulative global CO<sub>2</sub> emissions has been on sustainable lines, from 1980 to 2003 it was only 3.11 per cent. Thus historically, and at present, India's share in the carbon stock in the atmosphere is relatively small when compared to the country's population. India's carbon emissions per person are twentieth of those of the US and a tenth of most Europe countries. While 16 per cent of the World's population is in India, its share in the global CO<sub>2</sub> emissions is only 4.6 per cent. According to World Bank Assessment, India is a relatively low carbon economy. Even the independent projections indicate that India's CO<sub>2</sub> intensity is likely to continue to decline through 2030-2050.

India has been responsible and responsive to climate change issues. It has proactively contributed to climate change negotiations. It was actively involved with G77 & China to evolve common position on negotiations. India has made 9 submissions to UNFCCC on Finance, Technology, Forestry and other areas. It has worked with China, Brazil, South Africa and 33 other countries to present a joint proposal for emission reduction targets by Annex 1 countries in the second commitment period.

India cannot and will not take on emission targets because poverty reduction and social and economic development are the first and overriding priorities. Each human being has equal

*No assistance, only compensation - Problem of Climate Change is the creation of the developed and industrial world.*

Mr. A S M Firoz,  
Member of Parliament,  
Bangladesh

*South Asian countries were never inclined for prolonging these negotiations. But, they were only waiting for a fair deal.*

– Mr. Mauskar,  
Addnl Secretary,  
Ministry of Environment,  
Government of India

rights to global atmospheric resources and common but differentiated response is the basis for all CC actions. India however will continue to be a low-carbon economy. Its primary focus is on “adaptation”, with specific niches for “mitigation”. It advocates collaborative research in future low-carbon technology and access to intellectual property rights (IPRs) as global public goods.

In spite of the Kyoto Protocol, the green house gas emissions from Annex I countries (excluding EIT 2 countries) have increased by 10 per cent over 1990-2004. This was in contrast with what was agreed under Kyoto Protocol - return to 1990 level by 2000 and a reduction of 5.2 per cent by 2012. Besides the non-compliance of developed countries on reduction targets, there are other concerns regarding the climate change negotiations. Advocating sectoral approaches to mitigation actions outside the Bali Plan, subjecting all nationally appropriate mitigation actions (NAMAs) to international monitoring, reporting and verification and the move to limit scope of Clean Development Mechanism (CDM) are some among them.



*Dr. Mauskar, Mr. Firoz and Mr. Juergen Bischoff presenting their respective country perspective on climate change*

## Germany

Right from inception, Germany has been proactive in realizing targets for reduction. A Commission formed in December 1987 was the first response to climate change. Germany had its own initiative called ICCI - International Climate Change Initiative, to address the issue of climate change. Germany's objective is to reduce emissions by 40 percent by 2020 compared to the 1990 level. Auctioning emissions is seen as a way for raising funds for coping with the impacts of climate change.

*‘Essentially every country should contribute. The change needs to start now to realize the agreements made.’*

Mr. Juergen Bischoff, Head, GTZ, ASEM

Germany has been very clear in its position on emissions. It aims to cut medium and long term emissions so that the temperature does not rise by more than 2 degrees. To achieve the targets with green house gas emissions, both developed and developing countries have to abide by their agreements. Developed countries being historically responsible for the creation of the problem have the responsibility to help in reducing the effect. Developing countries which are now on the path of adding green house gas emissions, need to reduce them by adopting suitable technologies.

The core issue that needs to be resolved in Copenhagen is ‘competition’. On one hand, developed countries fear the loss of competitive advantage by sharing technologies and on the other, developing countries feel that a cap on emissions will impede their economic growth. There is a fear that climate change will be used as a means to hamper trade. And this is the reason for the delay in coming to a common understanding, in spite of several rounds of negotiations.

Change in governance often results in a change in policies taken by the country governments. However, in the case of Germany, where a new government has taken over, policies haven't changed. The stability of the system and the awareness levels of citizens on this issue would not allow the new government to take a completely different direction.

## Need for pro-poor policies

Climate policies can be more effective when consistently embedded within broader strategies designed to make national and regional development paths more sustainable. Climate change concerns should be integrated in all areas of public policy, particularly economic and social policies. It is a long-term process including awareness-raising, integration into sectoral planning and implementation of specific adaptation options. Integrating climate change risks requires more flexible, preventive and forward-looking approaches, and will involve legal, institutional and policy changes.

As negotiations are going on at the international level, the interests of all the nations including those of the poor should be ensured. This could happen when views and voices from various fora get represented in such negotiations. Another way is to include and integrate the needs and preferences of the poor and the marginalized in the plans prepared at the national level. As the climate change issue is part of the larger challenge of sustainable development, the national governments are already including them in their development planning. This shows that the national governments in the developing countries are capable of addressing the challenges of climate change.

### Recommendations

- Focus should not be on re-negotiating the UN Framework Convention on Climate Change (UNFCCC), but rather enhancing its implementation. The mandate should be on enhancing long-term cooperation on Climate Change under the Bali Action Plan (BAP).
- Long term cooperation should be in terms of enhanced action by developed and developing countries reducing greenhouse gas emissions (mitigation) and increasing the capacity to meet the consequences of climate change that has already taken place and is likely to continue to take place (adaptation).
- A cooperative global response which is also fair and equitable is needed which is in accordance with the principle of common but differentiated responsibilities and respective capabilities, a principle that the entire international community has enshrined in the UNFCCC, which concluded in 1992 at the historic Rio Summit.
- There is a need to take a South Asian position and not limit oneself to country positions. Countries within South Asia need to raise as one voice as there are many trans-border issues of climate change which need to be addressed collectively.
- Human solidarity based on equity needs to be mobilized and strengthened.
- As the issue of climate change is a global problem, there is a need for global partnerships.



# Climate change and Justice

Climate change discussions have most often centered on issues of environment, economics and politics. Nevertheless, it is a well known fact that the impacts of climate change concern mainly and primarily the poor and the vulnerable affecting their lives and livelihoods. As mentioned earlier, people who have not been responsible for the creation of the problem are in fact the most affected. In such conditions, climate change does not become just an environmental issue but a life issue, a livelihood issue and a justice issue. And this dimension of the issue of climate change is getting recognized slowly.

Developing countries have taken the road to growth and development very recently. In countries like India, emissions have started growing but are still significantly lower than in industrialized countries. The difference in emissions between an industrialized and a developing country is even starker when per capita emissions are taken into account. The world average annual emission per capita is 4 tons while scientists agree that a 'sustainable' average is 2 tons per year. However, there are a lot of variations among the countries. Developed countries like USA and Australia have per capita emissions of around 20 tons, much above the sustainable levels and also the global average levels. On the other hand, developing countries like India and Bangladesh have 1.07 and 0.28 tons respectively, much below the sustainable average levels. In such a situation, it would not be fair for all countries, particularly the developing ones to reduce emissions at the cost of their development (See chart on page 26).

## People's right to development

It is people – and not nations or economies – that possess the right to development. And this, inescapably, means taking inequality within countries as seriously as inequality between countries. The basic issue of equity is central to the core of negotiations. On one side there are countries like the USA which are not part of Kyoto protocol but have very large carbon emissions. On the other side we have countries which have a large number of poor people who are suffering for the



Prof. Mizan Khan, Ms. Nafisa D'Souza and Dr. Alexander Popp presenting their views on climate justice during the panel discussion.

*It is not just enough if affected people are provided food in times of crisis. Human dignity is very important and we need to take care of that.*

Bishop Theotonius Gomes,  
Dhaka, Bangladesh

problem not created by them. Looking at the figures, in terms of emissions, 1 USA citizen equals 19 Indians or 107 Bangladeshis or 134 Bhutanese or 269 Nepalese. Is this global justice?

Much of the growth in emissions in developing countries results from the provision of basic human needs for growing population. Poor people who have not enjoyed their right to development are not expected to share the burden of mitigating climate change effects. On the other hand, emissions in industrialized countries contribute to



Photo: LAYA, Andhra Pradesh

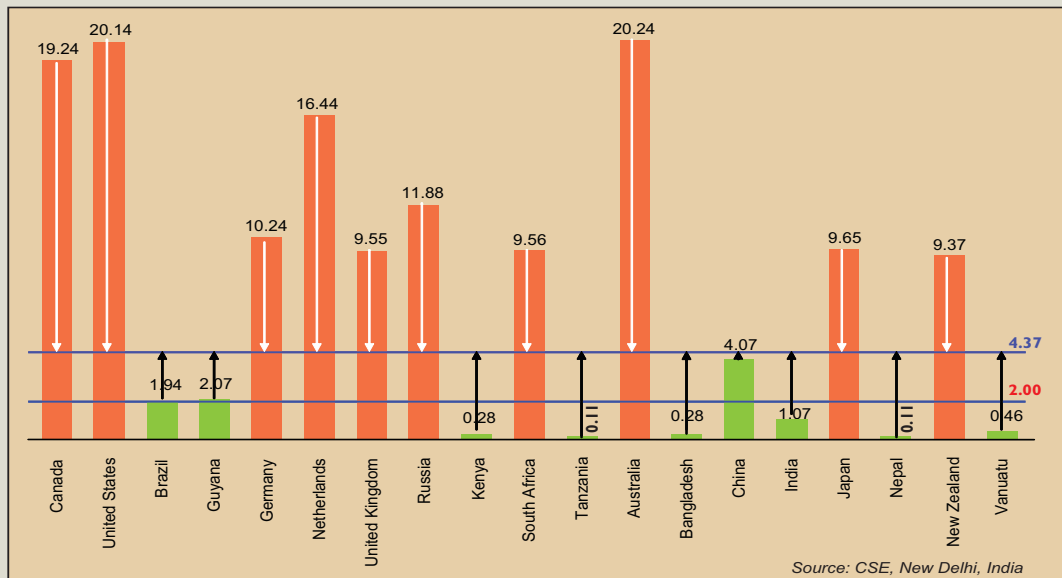
Poor are the most vulnerable to climate change effects.

growth in a standard of living that is already far above that of the average person worldwide. But then should not there be a limit to growth and also to poverty? Climate change negotiations essentially have been ignoring this key principle of 'justice' in all its negotiation frameworks.

### Justice and Equity

Basically, over years, two models or frameworks have emerged to address the climate crisis taking into account differential country responsibilities: the Contraction and Convergence Framework, and the Greenhouse Development Rights (GDR) Framework. These approaches attempt to posit global solutions to the climate crisis based on the principles of equity and climate justice. The contraction and convergence framework is based on the per capita approach. It indicates the need for developed countries to contract their economies, which essentially means the decrease in the extent of energy use. On the other hand, developing countries need to continue to grow in order to take care of their development needs until both economies converge at a point of time to arrive at average sustainable levels.

Per capita emissions and entitlements for climate justice



Source: CSE, New Delhi, India

The Greenhouse Development Rights (GDR) framework was developed to address the issue of intra and inter inequity within and between nations. Ultimately, it does not aim at protecting the rights of countries to unfettered economic growth, but rather ensure the rights of people within countries to a level of sustainable human development. To be specific, the GDR framework embodies the right to development as a 'development threshold'. It is a level below which individuals, by definition poor, are not expected to share the burden of mitigating the

climate problem. People above the threshold, on the other hand, are taken as having realized their right to development and as bearing the responsibility to preserve that right for others. These obligations are taken to belong to all those above the development threshold, whether they happen to live in the developed or underdeveloped countries.

The key issue in relation to these models is that while they have been deliberated immensely within civil society, and to some extent within government circles as well, they have not found their way on the negotiation tables. The leadership within Northern countries finds these models unacceptable, particularly because they imply the need for enormous downsizing of their economies.

Atmospheric sink capacity is a global public good and therefore anybody who pollutes has a responsibility to pay. Also, pricing the carbon by putting a cost for the emissions would make citizens and more importantly the industries, more responsible. Hence the Polluter Pays Principle need to be enforced. Developing a carbon price not only reduces the total costs of reducing the green house gas emissions, but also helps in achieving a level playing field between countries.

Equity issues are prevalent even in developed countries. But people there have more safety nets to cope with the disasters. Moreover, developing countries have faced disasters more often and have survived. There is more resilience in the people and the systems. However, the sheer numbers of people prone to be affected makes climate change a reason for greater concern in the developing countries.

“ There is a strong relationship between poverty, degradation of resources and climate crisis. In the context of climate change this relationship is getting wider recognition. Therefore, Climate Change needs to be seen as an opportunity to address deeper issues of global development models. ”

Nafisa D'Souza, Laya, Andhra Pradesh, India

### Recommendations

- Polluter Pays Principle (PPP) need to be enforced. Industries which pollute more, should be taxed heavily.
- Sensitising the citizens in developed countries will help put pressure on their governments to reduce emissions. This is necessary as several of the key countries which have taken commitments under the Kyoto protocol are not likely to honour them.
- Sensitisation is also important in developing countries for civil society to influence their own governments to follow a low carbon pathway to development.

# Participants

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Mr. Thomas Loster, Munich Re Foundation, Germany  
Dr. Ulrich F   er, MISEREOR, Germany  
Dr. Winfried Schneider, MISEREOR, Germany



## 6 October

### Inaugural Session

- Registration
- Welcome by Dr Ulrich Fűßer, Misereor and Dr Bernhard Hoepfer, Welthungerhilfe
- Climate Change in South Asia- Dr. Anwar Shelly, Caritas Bangladesh

### Session 2 - Climate Change - Adaptation

- Introduction – Dr. Ravi Kumar, Outreach
- Climate Change & Disaster management in Sundarbans - Dr Manas Ghosh, Ramakrishna Mission
- Meeting the Climate Change Challenge through Right Choices and Preparedness - Dr Abdhesh Gangwar, CEE
- Micro insurance as a safety net - Dr Thomas Loster, Munich Re Foundation
- Adaptation of small farmers to climatic risks in India - Dr Poonam Pande, Sustainet India
- Open Discussion

### Session 3 - Climate Change - Mitigation

- Introduction-Dr. Ravi Kumar, Outreach
- CDM for Sustainable Development?- People's perspectives- Ms. Nafisa D'Souza, Laya
- Climate change challenges and CDM projects- a REDS experiment- Mr MC Raj, REDS
- Open Discussion

### Session 4

- Poster Presentations of participants' experiences and work in the field of climate change

## 7 October

- Group work on issues of day 1: disaster preparedness; agriculture and livestock; CDM
- Presentation of group work and discussion
- Field visits

## 8 October

### Starter session

- Field Visit Reports, short discussion and conclusions

### Session 1 - Climate Change - Policies

- National Adaptation Programme of Action - People's perceptions- Mr Sukanta Sen, Barcik

### Session 2 - International Climate Change Negotiations from South Asian and European perspectives

- Bangladesh Perspective - Mr A S M Feroz, Honourable Member of Parliament, Bangladesh
- Indian Perspective – Mr J M Mauskar, Additional Secretary, Ministry of Environment, India
- German Perspective – Mr. Juergen Bischoff, Head, GTZ, Germany

### Session 3 - Panel discussion on Climate Change and Justice

- Dr Alexander Popp, IGP, Germany
- Ms Nafisa D'Souza, Laya, India
- Prof Mizan R Khan, North South University, Bangladesh

### Session 4 - Group work

## 9 October

### Session 1 - Conclusions and Recommendations

- Plenary: recapitulation of group work, agreement on issues.
- Agreement on statement, Follow up and next steps



# The Organisers



**IGSSS**, established in 1960, is a development support organisation seeking to reach out to the most marginalised and vulnerable communities of the Indian subcontinent. It aims at making a difference in the lives of these sections by establishing meaningful partnerships with NGOs and communities at the grassroots. IGSSS manages around 1000 projects, which are in different phases like pre-implementation, new, ongoing, just completed and evaluation. In the past three years, IGSSS has supported more than 500 projects and networked with several organizations to address a wide range of issues including Climate Change and Disaster Risk Reduction. [www.igsss.org](http://www.igsss.org)



**Laya** is a social development organization focusing on the indigenous (tribal) communities in North Andhra Pradesh, India. It was established in 1989. It is involved in various initiatives relating to safeguarding the rights of indigenous communities and access to resources on one hand as well as demonstrating sustainable development initiatives on the other. [www.laya.org.in](http://www.laya.org.in)



**Misereor** was founded in 1958 as agency “against hunger and disease in the world”, mandated by the German Catholic Bishop’s Conference to fight causes of hardship and misery chiefly in countries of Africa, Asia, and Latin America and to promote justice, freedom, reconciliation, and peace in the world. MISEREOR is involved in the project “Climate change and justice: Climate policy as a component of fair globalisation and sustainable poverty reduction” together with the Potsdam Institute for Climate Impact Research (PIK), the Munich Re Foundation and the Institute for Social and Development Studies in Munich. This project aims at including the people’s perspective on climate change in the development of suitable strategies and in options for global climate and energy policy, and at involving the most vulnerable in the discussion about suitable strategies to fight poverty and climate change. [www.misereor.de](http://www.misereor.de); [www.misereor.org](http://www.misereor.org)





**Outreach** was established in 1993 in response to the needs of communities living in drought prone areas in South India focusing on building sustainable people's institutions as a foundation and to empower the communities towards developing self reliance in improving the quality of their lives. Outreach has been actively involving in natural resource management, livelihood enhancement and enterprise development. [www.outreachindia.org](http://www.outreachindia.org)



**Sustainet** is an acronym for "Sustainable Agriculture Information Network." Composed of a German network and three further networks in the pilot regions of India, Kenya/Tanzania and Peru/Bolivia to establish networks between institutions involved at local, regional and international levels. In India, Sustainet is a group of eleven partner organizations that have a background of development work related to agriculture. [www.sustainet.org](http://www.sustainet.org)



**Deutsche Welthungerhilfe** (formerly known as German Agro Action) was originally founded as the National Committee for the Freedom from Hunger Campaign of the Food and Agricultural Organisation of the United Nations (FAO) in 1962. In India, Welthungerhilfe has been dedicated to rural development, food security and eradication of root causes of poverty. Through its project support on Disaster Risk Reduction (DRR), renewable energy, natural resource management, sustainable agriculture and protection and replanting of mangroves to prevent coastal erosion and biodiversity conservation, Welthungerhilfe has been increasingly addressing issues related to the impact of Climate Change. [www.welthungerhilfe.de](http://www.welthungerhilfe.de)



**BARCIK**, Bangladesh Resource Center for Indigenous Knowledge is a non-governmental non-profit development organization, established in 1997. BARCIK has been involved in exploring and incorporating indigenous knowledge and local practices into contemporary development programmes. Some of the key advocacy issues, which BARCIK has been involved are seed rights, genetic resources, disaster management and local/indigenous knowledge, water rights, Climate change adaptation and local/indigenous knowledge, gender and access to natural resources. BARCIK has been actively involved in policy advocacy campaigns and conducting various research studies on issues of agro-biodiversity, livelihood change and access to natural resources. [www.barcik-bd.org](http://www.barcik-bd.org)





Climate Change and its impacts are affecting people all over the world. They have been responding and adapting to the consequences of climate change based on the local and traditional knowledge. Integrating this knowledge while developing policies and strategies, both at local as well as national level, is essential for achieving sustainable development.

To highlight the need for recognizing local people's strategies in adapting to climate change, a conference on "*The Climate Crisis – People's Potential and Needs for Adaptation and Mitigation*" was organised during 6-9 October 2009. Participants from India, Nepal, Bangladesh, Germany, Netherlands, representing the government as well as the non-government sectors, deliberated over the various issues and challenges of climate change. This document is a synthesis of the deliberations of the workshop.

The document brings out examples of people's existing strategies for adaptation and their needs and priorities to deal with the changing climatic conditions in future. These examples cover communities' adaptive strategies in agriculture, disaster preparedness and Clean Development Mechanism projects. Recommendations based on intensive discussions on various issues during the workshop have been highlighted at the end of each section.

The workshop was organized by MISEREOR and Welthungerhilfe in partnership with Sustainet, IGSSS, Laya Outreach and BARCIK. This document is a joint effort by LEISA India team of AME Foundation, Bangalore and ILEIA, The Netherlands.

