

CONTEXT ANALYSIS REPORT INDIA

Programme: Climate-Proof Disaster Risk Reduction

Involvement of Southern partners

The Partners for Resilience in India and their national and local partner organisations have been actively involved in the development of the context analysis and have been leading the development of the programme design. The Red Cross / Red Crescent Climate Centre, as the 3rd partner in India, has provided specific technical expertise and climate related information for the context analysis, the programme and log frame. Wetlands International headquarters contributed through an intensive review and advice process. The local work programme formulation was carried out in a three day workshop held at Bhubaneswar, Orissa during April 25-28, 2010. The workshop involved 31 participants representing various sectors: government, donors, NGOs and research agencies, which discussed an overview of the programmes related to disaster risk reduction (DRR), climate change adaptation (CCA) and eco-system-based approaches (EMR); assessed lessons learnt; conducted a detailed problem analysis and thereafter recommended a general outline of the country programme. The overall programme was circulated to the target groups seeking further suggestions and proposal of modifications. The inauguration of the consultation programme by the Principal Secretary, Department of Environment, Government of Orissa is a strong statement of the importance placed by the state government to the programme. The offer of various organisations to contribute to the programme is equally encouraging and indicator of its relevance. As the in-country partners acknowledged, the whole process strengthened their capacities, through the participatory nature of the planning process, exchange of information and expertise.

I. Introduction

India is the largest parliamentary democracy in the world with important human rights provisions enshrined in its constitution. The country enjoys the benefit of the presence of a strong and vocal civil society. A key feature of the constitution is the formal recognition of the role of village level institutions (Panchyati Raj Institutions) in development policy and implementation.ⁱ India is gradually entering into an era of coalition politics wherein smaller and regional parties play increasingly prominent roles.

There is increasing focus on inclusive growth, catering to the needs of underprivileged sections of society.ⁱⁱ The Mahatma Gandhi National Rural Employment Guarantee Act (NREGA) was introduced in 2005 aimed at enhancing livelihood security by guaranteeing hundred days of wage-employment in a financial year to a rural household. The government is preparing to introduce a Women's Reservation Bill which could make participation of women in various spheres of policy and decision making mandatory. The government is taking proactive steps to increase accountability. The Right to Information Act was passed in 2005 to ensure the right to information for citizens. The media are increasingly challenging and scrutinising public policy decisions and actions, and bringing forth acts of misdemeanour in the public domain.

India is one of the most rapidly developing economies, sustaining a growth rate of GDP of over 6% despite the global recession. The country relies heavily on natural resource-based sectors for formal employment, with agriculture and related sectors accounting for 52% of total employment.ⁱⁱⁱ The rate of growth in agriculture sector (which includes fisheries and forestry) has been declining. The economy has been going through high rates of food inflation, which has not necessarily translated into increased incomes for primary producers. Although significant gains have been made in per capita GDP, progress in terms of the Human Development Index is lagging somewhat. The poverty ratio is still 28%.^{iv}

Sustainable growth is increasingly challenged by natural as well as manmade hazards. According to the National Disaster Management Policy (2009), 58.6 per cent of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12 per cent of land) is prone to floods and river erosion; of the 7,516 km long coastline, close to 5,700 km is prone to cyclones and tsunamis; 68 per cent of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches.^v

India supports approximately 16% of the world's human and 20% of livestock population on a mere 2.5% of the world's geographic area. This puts tremendous pressure on natural resources. The trend of degradation of the natural resource base is underlined by several indicators. Of the total forest cover, 43% (28.99 million hectares) have a canopy cover of less than 40%.^{vi} The situation is highly precarious in case of non-elastic land resources. The Ministry of Environment and Forests estimates that of the 142 million hectares under cultivation, 80 million hectares are substantially degraded.^{vii} Higher erosion rates have contributed to sedimentation of river beds, siltation of drainage channels, irrigation canals and most importantly wetlands. Degradation of catchments has contributed severely to losses in the hydrological regulation capacity of watersheds, leading to greater frequency and severity of floods and prolonged droughts.

Surface water resources are under pressure due to the demands of urbanisation, agriculture, hydropower development etc. Particularly the Ganga and Yamuna rivers that have nurtured civilisations for centuries are currently facing drastically reduced flows and deterioration of water quality due to construction of hydraulic structures and continuous dumping of industrial and domestic waste. Water allocation policies are heavily biased towards rich farmers who generally own land in the head waters pushing the weaker sections of the society to the downstream areas prone to flooding and other environmental hazards. Often these policies lead to resource use conflicts between upstream and downstream users ultimately leading to migration. These issues emanate from a lack of basic understanding of the crucial role of natural resources in the economy of the marginalised communities.

Climate change projections indicate a temperature increase of 2°C - 5°C; a 15% to 40% increase in rainfall; and a sea level rise of 0.18 – 1.0 m by 2100. Other changes include increases followed by long-term decreases in available freshwater from glaciers and snowmelt; contamination of water supplies; reduced crop yields; and increased incidence of landslides, floods, droughts and stronger storms, and displacement of coastal populations.

These trends will also negatively affect health outcomes. After flood events, diarrhoeal diseases and vector-borne diseases (e.g. malaria, dengue, schistosomiasis, kala-azar, tick borne encephalitis and Japanese Encephalitis) are more common due to mixing of human waste and drinking water. Stagnant pools of water provide extra breeding grounds for disease carrying mosquitoes. In times of drought, water quality can decrease, causing diarrhoea. Lack of access to adequate amounts of water for personal hygiene can cause diarrhoeal disease, intestinal worms and trachoma. People may be more likely to store water around the home during dry periods which can provide breeding grounds for mosquitoes carrying dengue. There are over half a million deaths annually in India due to diarrhoeal disease – a rate of about 46 deaths per 100 000. Inadequate water and sanitation infrastructure coverage and poor knowledge of hygiene are risk factors for diarrhoeal disease. These same factors make populations vulnerable to extreme precipitation events. In India, 88% of the population has access to improved drinking water sources (compared to only 43% in 1990). However, sanitation coverage is very low at with only 31% of households having access to improved sanitation (18% in 1990). Only 33% of under-fives with diarrhoea receive oral rehydration therapy as treatment.

II. Target group analysis

Partners for Resilience will target the poorest communities in the floodplains of Odisha and Bihar States (Map 1) that are vulnerable to natural hazards exacerbated by climate change and natural resource degradation.

The States of Odisha and Bihar are ranked among the lowest in the country in terms of human development indicators.^{viii} Their predominantly agrarian and natural resource-based economies^{ix} are routinely struck by disasters, which thwart the impact of economic development and poverty alleviation programmes. The communities living in the Mahanadi Delta (Odisha) and Gandak-Kosi-Son (Bihar) floodplains are considered most vulnerable to multiple hazards, usually related to water management. These communities are characterised by low coping mechanisms. Disadvantaged groups such as Dalits, landless and women are hardly represented in local decision making and are often excluded from developmental programming.

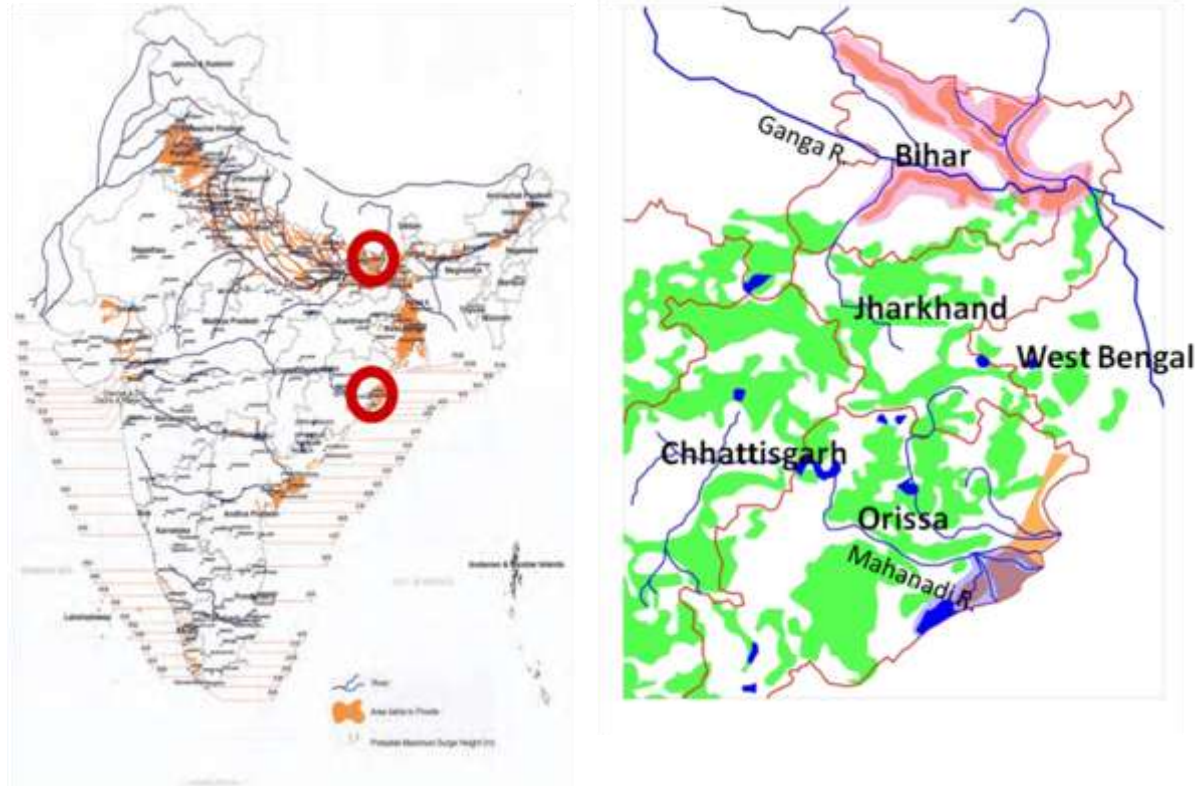
The connection between disasters, ecosystems and water management is clearly evident in the target areas.^x The Mahanadi Delta, which sustained rich agriculture and fisheries due to its fluvial dynamics was extensively channelised to support agriculture. This converted the delta from being a flood-dependant to flood prone environment.^{xi} Downstream, people converted mangroves for settlements, and weakened their natural defence against cyclones. An assessment in 2007 concluded that villages with wider mangroves suffered fewer casualties, and opportunity cost of saving a life by mangroves was Rs. 11.7 millions.^{xii} In Kosi-Gandak floodplains, construction of embankments forced concentration of sediments in the river channel rather than its fanning in the delta. After a point, the engineering structures gave way, leading to more than 100,000 deaths in a single week. In both these areas, climate change projects expect an intensification of monsoons and dry summers. Development planning, however, still remains focused on engineering solutions to manage disasters, rather than integrating ecosystems in the overall implementation strategy.

Civil society organisations, local and regional government are also target groups; they are described below under “Contextual analysis” and “Multi-actor analysis”.

III. Problem analysis

Micro

Communities are vulnerable due to livelihood systems that are dependent on natural resources, *with limited skills and economic opportunities for diversification*. There are insufficient incentives at community level to participate in



ecosystem conservation with a view to DRR. Risk transfer mechanisms are weak and communities usually have no access to insurance plans. Communities' awareness of opportunities for risk reduction is limited. Lastly, development planning and policy making could be more inclusive towards different levels of society.

Meso

At the state level inter-sectoral coordination and communication are weak and there are no systemic mechanisms to learn from past experience. DRR is not mainstreamed in developmental planning. A lack of technical knowledge is available hampers successful integration of DRR, CCA and EMR. The current system where disaster management programming is done for groups of villages ("blocks") is often ineffective.

Macro

At the national level, convergence between policies and action plans addressing DRR, CCA and EMR (notably the national environment policy, 2005; the climate change action plan, 2008 and the national disaster management policy, 2009) is weak. Harmonisation mechanisms between the centre and state government institutions do not work efficiently. There is little knowledge about the practical linkages between DRR, CCA and EMR. Coordination between institutions and sectors remains limited.

IV. Contextual analysis

The two States' caste hierarchy, which governs access to resources, determines to what extent stakeholder groups are included in or excluded from livelihood strategies. This has negative implications for participation of the vulnerable communities, community institutions and civil society organisations within the entire process of DRR.

Economic policy, which is focused on inclusive growth, aims to create value added and new employment opportunities in the forward and backward linkages within the primary sector. There is an emerging policy emphasis on making insurance and banking available to vulnerable and marginalised groups.

Climate change and environment are becoming part of the mainstream political agenda at the national and state level. The national environment policy (2006), climate change action plan (2008) and disaster management policy (2009) are reflective of this commitment. The role of civil society organisations is seen as a partner within all these efforts. These trends underline the timeliness of the initiative proposed by the Partners for Resilience.

Civil society in India is a vital instrument supplementing the developmental initiatives of the government. Its role can be broadly understood to fall within the following ambit:

- Promotion of participatory development:** Civil society is seen both as a catalyst and a facilitator in participatory development. It is widely recognised as one of the four elements involved in the process of development, along with the political system, the administration and the media. Their sensitivity to the poorer sections of society, better rapport with rural masses and greater flexibility are seen as advantages over government institutions.
- Empowerment of people:** Civil society plays an important role in generating awareness of rights and entitlements. Recently civil society has been proactively protecting the communities and vulnerable groups from developmental interventions likely to harm their livelihoods.
- Strengthening democracy and promoting good governance:** Civil society is a watchdog that holds the policy making and administrative machinery accountable to the public in matters of good governance such as people's participation, transparency, responsiveness etc.

The role of civil society is well established in the formulation and implementation of the three major policies of concern to the Partners for Resilience: the new environment policy (2005), the climate change action plan (2008) and the national disaster management policy (2009).

The Partners for Resilience propose to work with following civil society organisations: **Wetlands International India, Pallishree, Sangha, The People, Dalit Watch, Independent Initiative, Society for Women Action Development, Action for Food Production (AFPRO), Researchers, Association Stimulating Know How (ASK) and Women Association for Rural Development**; each of which has been selected on the basis of the following criteria: a) It has a long-term partnership with either **Wetlands International** or **Cordaid** in the implementation of wetland restoration and community-based disaster risk reduction programmes in the two states; b) It is familiar with the local situation and has been engaged in DRR and ecosystem restoration programmes; c) It is accepted and trusted by local communities; and d) it has the capacity to implement integrated community resilience programmes.

On the basis of the SWOT analysis of Indian civil society, the following strategies for strengthening civil society were formulated for inclusion in the country programme:

	Strengths	Weaknesses
Opportunities	<ul style="list-style-type: none"> - Enhance capacities of CSOs to implement integrated programmes linking CCA, DRR and ERM - Enhance access to knowledge base related to inter-linkages between CCA, DRR and ERM - Seek enhanced representation and engagement of CSOs in policy and decision making at state and national level - Enhance dissemination of best practices and lessons learnt 	<ul style="list-style-type: none"> - Enhance programmatic skills for implementing integrated programmes - Increase capacities to tap funding opportunities - Support integration and federation of CSOs
Threats	<ul style="list-style-type: none"> - Promote cooperation between various CSOs working on similar issues or having similar geographic focus 	<ul style="list-style-type: none"> - Building capacity through monitoring and evaluation and performance reporting - Invest in professional management

V. Multi-actor analysis

The Government, at national and state level, is implementing policies and action plans related to disaster management, CCA and ERM. For this purpose, various institutional arrangements are in place, e.g. the National Disaster Management Authority and State Disaster Management Authority. The Partners for Resilience will seek to promote convergence between the various policies and strengthen their implementation. It will develop a policy oriented knowledge base, build capacity and provide a platform for experience sharing.

The Royal Netherlands Embassy, the Consulate of Agriculture, Nature and Food Quality promotes cooperation between the two countries in the area of natural resources management. The Partners for Resilience would proactively share the lessons learnt and best practices emerging from programme with the Embassy to ensure its communication to the government at the appropriate policy and decision making levels. It would seek advice from the Consulate on the strategic direction of the programme.

The World Bank supports implementation of integrated water resource management and integrated coastal zone management programmes in the State of Odisha, as well as development of a climate action plan for Odisha State. The Asian Development Bank is implementing water management programmes in Odisha. In addition, both the World Bank and ADB are implementing infrastructure development projects in the two states. The Partners for Resilience would strengthen implementation of these integrated water resources and coastal zone management initiatives. They would proactively mainstream ecosystem-based disaster risk reduction in the World Bank and ADB programmes.

Research organisations are currently engaged in research on various aspects of policy related to ecosystem management, livelihoods, climate change and disaster management. The Partners for Resilience would engage with these institutions for the development of an integrated policy-oriented knowledge base.

In the private sector, risk management agencies offer risk transfer mechanisms in the programme area. The Partners for Resilience would work with the insurance sector to develop innovative instruments and increase access to risk transfer mechanisms.

Media play an important role in communicating the effectiveness and transparency of the various programmes implemented by the government and civil society organisations and will be an essential partner for the programme.

The specific niche of the Alliance is the interconnected approach to DRR, CCA and EMR in relation to the interventions of other actors in the country who deal with these subjects in an isolated manner.

VI. Tailor-made programme

The programme aims to reduce the impact of hazards as described in the context analysis of at risk communities in the floodplains of Odisha and Bihar States. The key issues that need to be addressed are: 1) communities are vulnerable to disaster, as their economic situation is fragile and they are not well prepared to respond; 2) local government and civil society organisations need more capacity to be able to offer an integrated community-based approach in DRR, CCA and EMR; 3) the State Governments of Odisha and Bihar are currently not as effective as they could be in the implementation of policies related to DRR effectively (eco-management, climate change, inclusion, better service delivery and convergence of various schemes towards risk reduction).

To strengthen the resilience of communities in the face of hazards and climate change the programme proposes the following three priority areas of intervention: 1) improving livelihoods of communities through ecosystem restoration, improved saving opportunities and access to risk transfer mechanisms, improving preparedness for multiple hazards, and creating community institutions that are responsive to the needs of disadvantaged groups at risk of exclusion; 2) building the capacity of local government and civil society organisations so that they will be fully able to convey to communities how to take sufficient DRR measures in an approach that integrates CCA and EMR; 3) support the State Governments in improving effective mechanisms to ensure coordination and inter-sectoral communication; they need a knowledge base to support decision making in matters of DRR, CCA and EMR.

These activities will benefit from the global support component which provides best practice on DRR/CCA/EMR to the community resilience activities. Through the Partners for Resilience the programme in India connects to global networks of civil society organisations and knowledge centres that will provide tools and partnerships to the Southern partners; and global policy inputs that will support their engagement with national policy makers, planners and implementing agencies. This specifically includes the UNFCCC process, World Bank, the Global Facility for Disaster Reduction and Recovery, the Asian Development Bank, UNDP and others. The Partners for Resilience will in particular profit from related work by the Institute for Social and Environmental Transition (ISET), in particular the programme 'From Risk to Resilience'^{xiii}, and from programmes in other countries in Asia/Pacific, like the International Centre for Climate Change And Development (ICCAD) in Bangladesh that has a strong focus on capacity development for community-based adaptation. A letter of intent has been signed.

The following important opportunities will be grasped to ensure the success of the programme: 1) the policy environment is favourable, as the relationship between ecosystem degradation, climate change and disaster risks, and the need for an integrated response, are increasingly recognised; 2) the programme design is innovative and builds on the policy environment without attempting to duplicate existing processes; 3) the Partners for Resilience and their partners have the capacity to deliver change, based on their wide-ranging relationships with the target groups and their expertise in interactions between ecosystems, climate change and disasters at the community level; 4) extensive consultations involving multiple stakeholders has led to a programme that addresses specific gaps in programmes currently under implementation by other agencies.

ⁱ The 73rd amendment to Indian Constitution in 1992 led to formal devolution of powers and responsibilities to the panchayats to both preparation of plans for economic development and social justice , and for implementation in relation to 29 subjects listed in the 11th schedule of the Indian Constitution.

ⁱⁱ Government of India, 2006. *Towards faster and more inclusive growth – an approach to the 11th five year plan*. New Delhi, National Planning Commission.

ⁱⁱⁱ Government of India, Ministry of Finance, 2009. *Economic Survey of India*.

^{iv} *ibid*

^v Government of India, 2009. *National Policy on Disaster Management*. New Delhi, National Disaster Management Authority.

^{vi} FSI, 2007. *State of Forest Report – 2005*. Dehradun, Forest Survey of India.

^{vii} CSWRCTI, 1994. *Annual Report (1994 / 95)*. Dehradun, Central Soil and Water Conservation Research and Training Institute.

^{viii} Government of India, 2002. *National Human Development Report -2001*. New Delhi, National Planning Commission.

The states of Bihar and Orissa fall in the bottom five states of the country in terms of human development.

^{ix} Agriculture sector (including fisheries and forestry) accounts for 81% of the employment and 42% of the GDP of Bihar (2004-05). As per the economic census of 2005-06, agriculture in Orissa accounted for 67% of total employment and 27% of its GDP.

^x The BMTPC Vulnerability Atlas of India, 2006.

The atlas maps the country for wind and cyclones, floods, earthquakes and landslides. The proposed geographical areas fall within the highest priority prone to multiple hazards.

^{xi} Wetlands International – South Asia, 2004. *Socioeconomic assessment of environmental flows of Chilika*. Wetlands International – South Asia, New Delhi.

D' Douza, R., 2002. *Colonialism, capitalism and nature, debating the origin of Mahanadi Delta's hydraulic crisis*. Economic and Political Weekly, New Delhi.

^{xii} Das, Saudamini and R.V. Vincent, 2009. 'Mangroves protected villages and reduced death toll during Indian super cyclone'. *Proceedings of National Academy of Sciences*. Vol. 106. No.18. p. 7357-7360.

^{xiii} From Risk to Resilience: Assessing the costs and benefits of pro-active disaster risk management to meet the needs of vulnerable communities in South Asia. *Activities*. [online] Available at: http://www.climate-transitions.org/climate/pgm_activities. [Accessed in May 2010].