

The InFocus Programme on Crisis Response and Reconstruction (IFP/CRISIS) has among its objectives:

- Promoting socio-economic integration and poverty alleviation among conflict-affected groups;
- Tackling unemployment, social inequalities, exclusion and other priority concerns in crisis situations; and
- Developing a knowledge base and relevant tools on different types of crises.

The INDISCO Programme in the Cooperative Branch of ILO, supports self-reliance of indigenous and tribal peoples, through participatory community driven approaches to:

- Institution building, bringing the community into an organizational fold;
- Capacity building through skills, literacy and awareness, for socio-economic empowerment;
- Enabling a policy dialogue, bringing grassroots experiences to the notice of local, state and central administrations.

COPING STRATEGIES AND EARLY WARNING SYSTEMS OF TRIBAL PEOPLE IN INDIA IN THE FACE OF NATURAL DISASTERS

Case studies in
Mayurbhanj, Orissa
and Dungarpur, Rajasthan,
India.

AN IFP/CRISIS - INDISCO STUDY



International Labour Office
New Delhi

Executive Summary

I. Background

1. The frequency of disasters of all types in India is increasing, resulting in a great amount of socio-economic burden to the already impoverished people.
2. What impact do natural disasters have on the tribal people? How vulnerable are they to ecological changes? When do they learn about disaster warnings? Do they benefit from government-sponsored relief measures? If and when they receive assistance, does it meet their needs? What are their coping strategies? This study attempts to understand and answer these questions.
3. The International Labour Organization (ILO) undertook this study to understand and address the needs of tribal people during natural disasters, with a special focus on employment and protection of the most vulnerable sections of society. Two areas in India were selected for this study —Dungarpur in Rajasthan, which is a drought-prone area, and Mayurbhanj in Orissa, which faces frequent floods.

II. The Situation

4. Dungarpur district has faced three major droughts in the last three decades, the most recent in 1999-2000. The severity of drought can be assessed from three major indicators — low rainfall, scarcity of food and fodder and loss of crops and cattle. In a normal year, the tribal people get employment in agricultural activities and cattle rearing. But during a drought, they become totally dependent on government-run relief activities. During the 1985-87 drought years, 125,000 people were engaged as labourers in drought relief activities, costing the government Rs. 300 million. In 10 out of the last 17 years, there has been almost no rainfall. People are often forced to migrate to other places in search of work. In the 1985-1987 drought, a 22 percent loss of livestock was recorded.
5. Mayurbhanj is located 270 km from the state capital of Bhubaneswar. Though the entire district is not susceptible to floods, flash floods do occur frequently in villages near the rivers and the foothills of the Simlipal Hills. The infrastructure of the district is poor. Conditions of the roads in the interior villages are very bad and there is no rail transport. Health facilities are inadequate.
6. Both areas have predominantly tribal population and poverty is rampant. However, it must be acknowledged that not all tribal people are poor and for that matter, not all the poor are tribals. This being a small preliminary study, it did not venture into studying coping behaviour of the non-tribal population. For the purpose of making a comparative analysis of coping behaviour of tribals vis a vis the general population, a larger study would be required with controls.

III. Findings – Early Warning, Coping and Preparedness

7. Tribals everywhere have special strengths such as social capital or solidarity and ability to survive on a wider variety of nutritional sources. But successive disasters and destruction of ecology has eroded their capacity to cope. A declining natural resource base is making the life of the tribal people difficult

- even in normal times. Ecological imbalances, on the other hand, are increasing the frequency and severity of disasters. The combined effect of these has severely eroded their coping capacity.
8. A wealth of traditional knowledge exists for predicting natural disasters. In both Dungarpur and Mayurbhanj, the tribal people depend on nature to provide early warnings. They observe cloud movements, movements of animals and changes in the flora. Though the tribal people in both the study areas get disaster warnings from the government, they often come too late.
 9. The two areas have their own coping patterns. There are similarities in approach but there are significant differences too. The differences are mainly due to the kind of disasters they face. In Dungarpur, people adopt the following measures.
 - Households immediately reduce their daily food consumption to conserve whatever food they have.
 - They search for the seeds of short duration crops, like minor millets.
 - They start storing fodder for future.
 - Households dry fish gathered during the rainy season and store it for the drought period.
 - When they foresee a drought, they start using a single well for water instead of multiple sources as in normal situations. They start digging new wells or deepening the existing ones.
 - When their land can no longer support them, they begin migrating in search of wage employment.
 - They start collecting non-timber forest produce, such as forest seeds (*Ratanjot*, *Jatropha Curcas*) for sale.
 - People borrow cash from moneylenders or self-help groups wherever they exist, to tide over the tough period.
 10. Coping strategies adopted by the people in Mayurbhanj are slightly different in view of the kind of disaster threats they face. Their main concern is the safety of family members, food and whatever assets they have.
 - Children, elderly family members and livestock are moved to higher ground or safe places such as school buildings. In some cases, livestock is sold before the floods.
 - Available food, roasted rice and tamarind seeds etc. are moved along with this advance vulnerable group while clothing and utensils are put in safe places.
 - Food intake is reduced. Children are given priority and are fed three meals a day whereas the adults eat only one meal. No gender difference was, however, reported.
 - Temporary bamboo shelters are built on elevated areas and rope cots are readied to carry people to safer places.
 - Sandbags are stacked at weak points to prevent the entry of floodwaters into the village.
 - Hard cash and food are borrowed from moneylenders, traders (*dikus*), relatives and friends. Debts are repaid the next year if the crop is good.
 - Minor forest produce like *Sa*/leaves collected in other seasons is sold to supplement family income.
 - Country boats are kept ready for ferrying people to safer places.
 - Land and other assets such as jewellery, brass utensils, etc. are sold or mortgaged.
 - People begin to seek wage employment outside the village.
 - Children are pulled out of school and put to work in order to supplement family income.

IV. District Response

11. While Dungarpur District is working on its own district level plan, the Mayurbhanj district administration has formed five sub-groups to develop a 'Disaster Preparedness Plan'. Various departments at the district level are involved and have been provided with specific roles.

V. Issues

12. The immediate issues faced by the tribal people as a result of drought and flood are the following:
 - Crop yields are low due to lack of irrigation facilities, lack of resources for inputs, and fragmentation of land.
 - The period of distress migration prolongs during disaster.
 - Assets of households such as livestock and ornaments are dwindling due to repeated disasters.
 - Damage and destruction of houses.
 - Severe water scarcity.
 - Lack of medical facilities.
 - Pulling out children from school and putting them to work.

13. A priority issue identified by the tribal people of Mayurbhanj was the need for proper river *bunds* (raised banks) and stronger *pucca* (brick) houses that could withstand the ravages of floods. The tribal people of Durgapur stressed upon the need for proper land and water management for better agricultural yield. Despite all odds, they still wish to derive sustenance from their own land.

VI. Recommendations

14. The basic thrust of government action for mitigating the impact of natural disasters should be two-fold — make the tribal people self-reliant by restoring the natural resource base and provide timely and effective relief and rehabilitation packages during disaster. Tribal regions, especially those prone to natural disasters need combined efforts on the part of government, non-government and private sector organizations, and the tribal people themselves.
15. At the policy level there is a need to:
 - Review economic policies. The new economic policies of liberalisation and open market economy are not consistent with subsistence level activities of the tribal people, who are being further pushed out of the market economy.
 - Rehabilitate agriculture. Improved agricultural technologies suited to the specific regions need to be promoted.
 - Develop a participatory approach to planning, development and disaster management. Existing legal provisions for *Gram Panchayat* level planning should be extended to disaster management and preparedness. Special provisions need to be made for tribal populations in view of their particular vulnerability.
 - Take policy level decisions to resolve conflicting interests such as mining activities and use of exhaustible natural resources.
 - Some legal enactments like the Land Acquisition Act of 1894 and the Forest Tenancy Act of 1927 need to be reconsidered and reviewed so as to empower the tribal people and remove hurdles in the way of traditional livelihoods.
 - The Famine Relief Code which is over a hundred years old, needs to be reviewed in the light of the present day context and possibly, special provisions may need to be added relating to the problems of tribal communities.
16. At the programme level, the situation needs to be tackled at two levels — immediate measures and long term measures. The following steps need to be taken immediately.
 - A scientific approach is needed to streamline the information management system. Local skills should be developed so that the information is intelligible to all and reaches quickly. It

- should also include time-tested traditional warning systems for better acceptability by the tribal people.
- Each Gram Panchayat should be involved in evolving preparedness, relief and rehabilitation plans. These plans should clearly outline what the people's committees will do and what support is needed from the administration.
 - A code of conduct should be evolved for all participants like the government agencies, voluntary agencies and people's committees for the integrated approach to work smoothly.
 - There is need to provide immediate employment opportunities. This is essential for preserving individual dignity and for reviving the local economy. Reconstruction measures should involve the local people most affected by the disaster. Employment opportunities in non-agricultural areas and micro-enterprises need to be explored.
17. Long term measures should be taken towards disaster-'proofing' the regions so that damage to life and property can be minimised and self-reliance of the people strengthened.
- The natural resource base of the regions, which include water, forest and land, should be restored. This should be done not as part of relief work but as a normal activity to build the community's capacity to fight disasters.
 - Water harvesting and conservation schemes with a blend of traditional and modern technologies, should be launched.
 - Local people should be involved in regeneration and protection of forests.
 - Efforts should be made to build and integrate traditional people's institutions for building people's capacity, including life saving skills.
 - A district level calamity relief fund should be set up. Monitoring and evaluation mechanisms should be built at village and district levels ensuring transparency, accountability and social audit.
 - The concept of grain and fodder banks should be revived and saving habits promoted.
 - Policies should be framed to provide sustainable employment opportunities. Increased employment opportunities in labour intensive and agro-based industries need to be created, keeping in view the tribal peoples' preference for land and forest related activities.
 - There is a need to document the traditional disaster warning systems. The time-tested systems could be incorporated into the local warning systems for disaster forecasts.
18. In conclusion, tribal regions, especially those subject to recurring natural hazards, call for a convergence of efforts on the part of government, non-government, private sector and the tribal people themselves. While immediate preparedness and relief measures form an important part of natural disaster management, it is the longer term measures that would mitigate the effects through strengthening the coping capacity and self reliance of tribal people. However, it needs to be stressed that self-reliance of the community by no means absolves the Government of its responsibility. A synergy needs to be developed between the State and the people, building effective partnerships for development.