Floods in Orissa: No Lessons Learnt

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Orissa is prone to natural disasters, especially floods. Yet, the authorities have not been able to draw up an effective disaster management plan and politicians continue to play politics with relief works. What is needed in dealing with these disasters and the relief and rehabilitation work that follows is the participation of the local community and functionaries of panchayati raj institutions, and coordination with national and international bodies.

Orissa has been experiencing natural disasters[1] like floods, droughts and cyclones over a long period of time. During the 1970s, the estimated value of property loss due to natural disasters was around Rs 105 crore which increased by nearly seven times in the 1980s and by more than 10 times in the 1990s as compared to the 1980s (Samal and Meher 2003). Against the value of properties lost and damaged, the state has received a very small grant from the central government. The unusually high amount of rainfall in many districts causes floods in all the major rivers of the state.

The Mahanadi, Brahmani, Baitarani, Rushikulya, Bansadhara, Budhabalanga, Subarnarekha, etc, are the major rivers in the state which flow towards the Bay of Bengal. The coastal districts like Bhadrak, Kendrapada, Balasore, and Jajpur are most prone to floods as the 2011 experience showed. Orissa has faced two massive floods in 1982 and 2001. While the population affected by the floods in 2001 was nearly twice that affected during the 1982 floods, the cultivated area affected by these floods increased by more than six times. This goes to show that the state administration failed to either plan permanent flood control measures or take steps for long-term disaster mitigation.

The floods in Orissa in September this year caused loss of property worth Rs 3,266 crore, including Rs 2,121 crore in the first phase and Rs 1,145 crore in the second. In the first phase, the severity of the flood was mostly felt in areas like Sambalpur, Sonepur, Boudh, Cuttack, Kendrapada, and Jagatsinghpur all of which come under the Mahanadi river system. The floods claimed 41 lives while 10 persons are still missing. Around 1,16,706 houses in 4,897 villages under 102 blocks and 21 urban local governing bodies were affected in the first phase. The state government spent Rs 162.77 crore on relief provisions like ex gratia payment, clothing and utensils, supplementary nutrition assistance to artisans, and temporary shelter materials (*Business Standard*, 22 September).

In the flood's second phase the situation was critical in the Bhadrak, Jajpur, Balasore, Keonjhar and Kendrapada districts. This time around the damage estimated by the state government stood at Rs 1,144.46 crore. Nearly 40 people died and 25,32,313 houses in 4,054 villages of 71 blocks and 119 wards in 12 urban bodies were badly damaged. The second phase also claimed the lives of 1,000 cattle and damaged crops over 2,51,593 hectares (*The Samaj,* 30 September).

Major Loss Suffered by Various Government Departments

Sl No	Department	Loss (Rs Cr) 1st Phase	2nd Phase
1	Water resources	728.58	344.12
2	Panchayati raj	442.27	370.45
3	Rural development	372.64	97.26
4	School and mass education	86.50	3.13
5	Housing and urban development	74.50	22.36
6	Health and family welfare	12.36	4.58
7	Energy	15.56	9.34

Source: *The Samaj*, 30 September 2011 and *TOI*, 22 September 2011.

A point to be noted is that the potential impact of a natural disaster on a household can be varied, depending as it does on the household's vulnerability and capacity to cope with the consequences of natural disasters. Generally, households with the lowest incomes are the most vulnerable. They tend to live in houses built with poor quality materials which are usually situated in unsafe locations and with the least opportunities to recover from the natural disaster once it occurs (Samal 2006; Samal et al 2005). In developing countries, the poor are more likely to suffer the ill-effects of natural disasters than the rich. Considering that Orissa is among the poorest states in India, a large part of the population has suffered heavily in these floods and more central funds are required for relief, reconstruction and rehabilitation.

Politics of Relief

Politicians belonging to the state's ruling party were seen openly indulging in the "politics of relief". Even as the state

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government was conducting relief operations, these leaders would visit the affected areas almost daily to distribute relief materials they had collected from the private sector. In the worst affected areas the scene resembled that of the pre-poll days. Luxury vehicles carrying these politicians flocked to these areas and they did not forget to ensure that the media followed them everywhere (*The Hindu,* 22 September). It has been alleged that almost all the ruling party politicians badgered the district administration to keep their constituencies in mind during relief distribution. Their concern was no doubt also due to the massive compensation funds that were to be distributed in the flood-affected areas and the equally huge sums that would be spent for reconstruction and rehabilitation works.

Floods have been a perennial problem in the coastal districts of Orissa since 1859. As early as 1928, a committee was set up to study all aspects of this issue and was followed by the Flood Advisory Committee (1938-39). The 1928 committee considered the problem to be that of disposal of excess flood water while the advisory committee viewed it as one of proper distribution and disposal of excess rain water. It recommended a system of embankments to control the flooding. The Hirakud Dam was constructed in 1957 mainly to control floods. After the conference of irrigation ministers of all the states held in Srinagar, the Government of India embarked upon building two multipurpose dams in Orissa at a total expenditure of Rs 45 crore for the Rengali Dam (on the Brahmani River) and the Bhima Kund (on the Baitarani River) projects. Construction of the Rengali Dam started in 1973 and was completed in June 1985. However, due to political pressure the Bhim Kund project never took off (Sahu 2000).

Not everyone looks upon these big dams as solutions. There has been strong opposition from the local people to proposals for the Tikarpada project in the past and now, to the Sindol project.

In fact, the 1980 flood was blamed on the release of water from the Hirakud Dam. However, the problem does not lie with the dam itself but with its siltation. Increased run-off from the upstream catchments following deforestation (which results in increased soil erosion) seems to have rendered inadequate the original live storage of the Hirakud Dam which was designed on the basis of past trends in the run-off from the upstream catchments (Satapathy 1993). Satapathy argues that the Hirakud Dam has drastically reduced large floods in the state. On the other hand, the increased frequency of medium and small floods was seen as the joint result of flood moderation by the Hirakud reservoir and the contribution from the downstream catchments. The 1982 flood (in contrast to the first phase of the 2011 floods) was not due to the Hirakud Dam but due to the downstream catchment alone. The increased run-off from downstream seems to have been due to the deforestation taking place in this catchment area.

This clearly proves the need for afforestation in both the upper and lower catchment areas of big dams (e g, the Hirakud and the Rengali Dams) of Orissa. Another long-term measure could be the provision of safer houses for people who could be potentially affected. The weak shelters (i e, houses constructed of clay mud, unbaked clay blocks and bricks, field stones, etc) which are supposed to protect residents end up killing them during floods and cyclones (Arya 2003). While these and other long-term disaster management measures are urgently needed, the unholy nexus between politicians, burueaucrats and contractors who supply relief materials proves to be an obstacle.

Local Participation

However, during the unfolding of a natural disaster or the relief, rehabilitation and reconstruction work that follows, the participation of the local community is essential. It should form the core of any disaster preparedness and mitigation effort. The Tenth Five-Year Plan document also emphasised the need for community level initiatives in managing disaster. Similarly, functionaries of panchayati raj institutions must also be involved in relief and rehabilitation work.

It should also be kept in mind that it is not the government alone that can cope with the high intensity and sudden impact of natural disasters like the cyclone of 1999 and the recent floods in the state. There has to be the widest possible mobilisation of various groups, organisations and institutions at the local, national and international level.

NOTE

1 The Brussel-based Centre for Research on Epidemiology of Disaster (CRED) defined a natural disaster as a situation or event that overwhelms local capacity, necessitating a request for national or international assistance. For a disaster to be entered into a CRED's Emergency Events (EM-DAT) data base, at least one of the following criteria must be fulfilled: (i) ten or more people reported killed, (ii) hundred people reported affected, (iii) a call for international assistance, or (iv) a declaration of a state of emergency. People are considered to have been affected if they require immediate assistance during a period of emergency to fill basic survival needs such as food, water, shelter, sanitation and immediate medical assistance (Finance and Development: 2003).

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