

برخی تجربیات جهانی در خصوص سیل و بلایای طبیعی و تاثیر بر شیلات و ابریان

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1398

Fisheries and aquaculture emergency response guidance



برخی مستندات ، منابع علمی و
اسناد سازمان خوار بار جهانی
در رابطه با سیل و اقدامات
فوریتی مرتبط با صید و ابزی
پروری





Food and Agriculture Organization of the
United Nations (FAO) Nigeria Country Office

Mitigating the Impact of Flood on Fish Farmers



Following the unprecedented 2012 flood, an assessment of the impact of the floods on the agriculture and food security sector was undertaken by a multi-agency team led by FAO. The team comprised experts from the Federal Ministry of Water Resources (FMWR), the Federal Ministry of Agriculture and Rural Development (FMARD), the National Emergency Management Agency (NEMA), the Food and Agriculture Organization (FAO) of the United Nations, the World Food Programme (WFP), United Nations Development Programme (UNDP), the National Planning Commission (NPC), NGOs, the State Emergency Management Agencies and the State ministries in charge of Agriculture.

The assessment covered 14 states that were severely affected by the floods and focused on the impact of the floods on agricultural production (crops; livestock; capture fisheries and aquaculture and agriculture infrastructure and facilities) and food security.

Eight states across the federation – Adamawa, Bayelsa, Delta, Edo, Kebbi, Niger, Plateau and Taraba – were found to be worst affected and most needing humanitarian support to rehabilitate agriculture and improve household food security. Given that the Federal and State governments were already planning to provide substantial support to crop farmers, FAO saw it necessary to assist smallholder fish farmers and women fish processors and marketers to rehabilitate their livelihoods

FAO support to the aquaculture sub-sector

With funds provided by the UN Office for the Coordination of Humanitarian Affairs (OCHA) through the Central Emergency Response Fund (CERF), FAO coordinated efforts with relevant Federal and State agencies, to support rehabilitation and recovery of smallholder aquaculture and processing, as well as enhance skills in flood preparedness and flood management in the aquaculture sub-sector. The emergency project aimed to alleviate the impact of the floods on households, enabling them to immediately rehabilitate and re-engage in small-scale fish farming for household income generation and access to food and nutrition.

The CERF project, entitled “Life saving support for fisheries producers in States most affected by the 2012 flood in Nigeria”, targeted resource poor smallholder fish farmers. The response supported 1000 fish farming households and 1,800 women fish processors. The criteria for selecting beneficiaries included:

- Evidence of fish farming activity prior to the flood
- Household fish stocks before the flood should be 5000 or less
- Pond size not more than 2000m²
- Location with high losses due to the flood

Funded by



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A collaboration project between FAO, WFP, UNDP and funded by OCHA


کاهش اثرات سیل بر مزارع پرورشی

Fall 2017

After the Flood: Fish Farming and Climate Change Adaptation in Chitwan, Nepal

Signe Stroming
SIT Study Abroad

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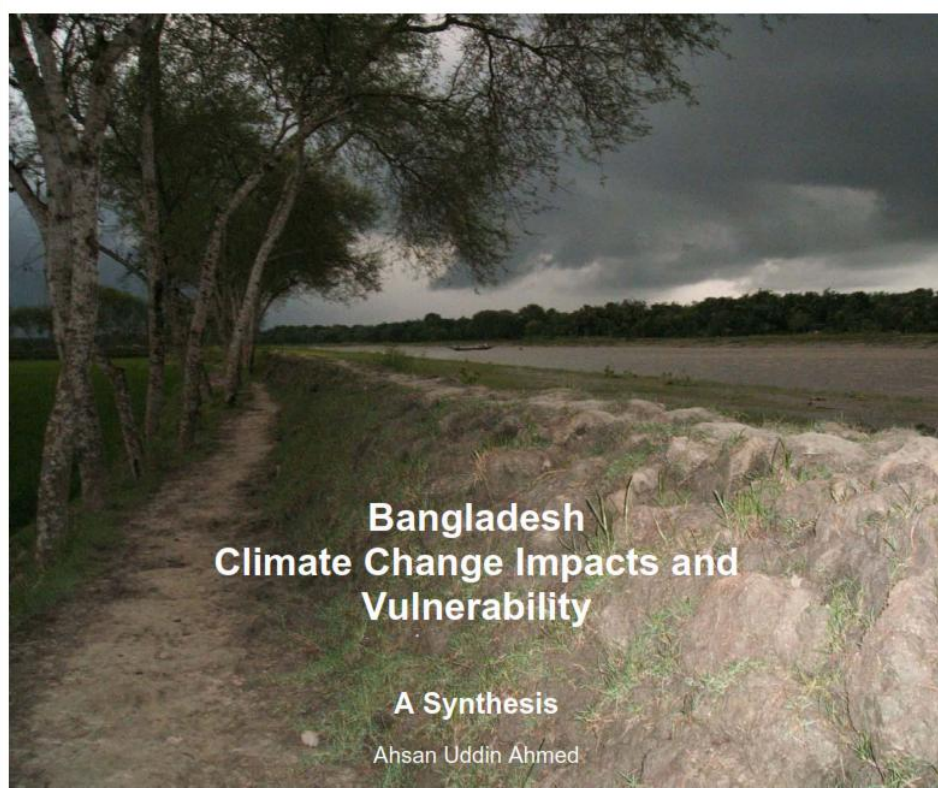
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اقدامات بعد از سیل در حوزه
ابزی پروری در کشور نیپال

Disaster response and risk management in the fisheries sector



مدیریت ریسک شیلاتی در رابطه با سیل



**Bangladesh
Climate Change Impacts and
Vulnerability**

A Synthesis

Ahsan Uddin Ahmed



Climate Change Cell
Department Of Environment

Comprehensive Disaster Management Programme
Government of the People's Republic of Bangladesh

تاب آوری و اقدامات ناشی از تغییر اقلیم در بنگلادش

BOX 13

Floods in Bangladesh in 1998

FAO conducted a detailed independent assessment of the impact and damage caused by the floods in Bangladesh in 1998 in collaboration with DFID. Project proposals for short-, medium- and long-term rehabilitation programmes for submission to donors were also prepared. It was noted that there was a lack of hard data on production losses and infrastructure damage, rendering the planning of rehabilitation difficult. A need to strengthen information systems and mechanisms for undertaking damage assessments was noted. Nevertheless, the assessment showed that the coping capacity of local communities was remarkable. Fishers and fish farmers had taken precautionary measures before and during the floods, although damage could not be avoided, and they were preparing to start production again. The provision of soft loans to assist them in repairing damage, replacing equipment and procuring inputs was identified as a main priority for assistance. It was further recommended to support, in parallel with assistance given to poor fish farmers to start their production once again, the re-establishment of supply and distribution systems by assisting seed and feed producers and ice manufacturers to start production since their inputs are essential for fishers and fish farmers. This parallel support should include the replacement of lost broodstock, preferably from domestic sources in order to avoid the potential risk of introducing new pathogens to the country. Recommendations for longer-term interventions included awareness building and training on disaster preparedness and post-disaster management with emphasis on participation by local communities.

Source: FAO, 1999.

اسیب ناشی از سیل در
سال 1998 در کشور
بنگلادش

در قالب برنامه های کوتاه
مدت ، بلند مدت و میان
مدت

BOX 10

Impact of the 2004 tsunami on the fisheries sector in Aceh Province, Indonesia

The earthquake and subsequent tsunami struck on the morning of 26 December 2004. Coastal communities in more than ten countries in Asia, Africa and the Middle East were affected. Because of its closeness to the epicentre of the earthquake, the Province of Aceh (Nanggroe Aceh Darussalam) in northern Sumatra, Indonesia, was the worst affected area in terms of the number of people killed, wounded or displaced; the magnitude of the physical destruction; the economic damage; and the geographic extension of the area impacted. Coastal communities were severely affected with high death tolls and loss of livelihood assets. Many of the total estimated death toll of 167 000 were members of fishing or fish farming households, although no exact figures are available. The majority of the casualties were women (3:1 versus men), children and the elderly.

Some 7 200 boats of the Acehnese pre-tsunami fleet of over 18 000 craft were lost and another 4 000–5 000 damaged. The value of lost and damaged boats has been estimated at approximately US\$10 million and a further US\$10 million for 6 700 lost/damaged engines. About 20 000 units of fishing gear valued at US\$18 million were also lost. Assessments indicate that 55 percent of the fishing harbours and landing sites were damaged. This damage was almost total on the west coast and significant on the east coast with most, if not all, community landing sites in affected areas destroyed. It is estimated that some 15 of the 20 damaged ice plants in Aceh had been operational at the time of the tsunami. All the larger plants on the west coast were destroyed.

اسیب ناشی از
سونامی بر شیلات در
سال 2004 در کشور
اندونزی

ارزیابی خسارت و
برنامه توانمند سازی
وباز سازی

BOX 9

The complex emergency in the southern Sudan and its fisheries

The combination of civil war, drought and floods has created a situation of complex emergency with disastrous effects on the Sudan's agriculture-based economy. The fisheries sector, which plays an important role in food security in several parts of the country, has also been badly affected. The inland water areas – wetlands and permanent swamps – in the southern Sudan have significant natural fishery resources estimated to be able to sustain an annual fish production of 80 000–100 000 tonnes. In the large swamp area As Sudd there are some 3 500 fishers, mainly from the Nilotic and Falata tribes, who are well known for their traditional fishing skills. However, as a result of the civil war that began in 1955 and lasted for all but 11 of the 49 years of Sudanese independence until the 2005 peace agreement, both subsistence and commercial fishing activities have undergone significant changes. In addition to constraints with regard to supply of equipment and limited access to fishing grounds through insecurity, there is also the problem of high densities of aquatic plants (macrophytes) impeding navigation. Consequently, fish catches in As Sudd are estimated at only about 30 000 tonnes per year. Post-harvest losses are also significant and are estimated to reach 40 percent during the rainy season.

اقدامات و برنامه
های بعد از سیل
در حوزه شیلات
در کشور سودان
جنوبی

BOX 17

Details of the deaths in Bhairavapalem and Balusutippa villages, Andhra Pradesh, India, caused by the cyclone in November 1996

Location	No. of deaths		Cause of death
	Bhairavapalem	Balusutippa	
Seashore shrimp seed collection sites	66	331	Shrimp seed collectors were camping in remote open seashore areas away from villages. No warning or rescue team reached them and they were washed away by the tidal waves.
Mechanized boats fishing at sea	33	21	Fishing boats that were already at sea several days before the event were caught in the path of the cyclone. Only those with transistor radios received warnings and not all managed to move to safe locations in time.
River fishing areas	7	23	Many of the fishers who had set up seasonal fishing camps on the shores of the Godavari river did not receive warnings.
Village homes	6	1	Both villages are low lying, exposed to waterbodies and close to the river mouth. Warnings – given only by transistors and television – were not taken seriously or only considered at the last moment. Houses, most of which were thatched, collapsed.

Source: Yadava, Turner and Calvert, 2000.

اسیب ناشی از سیکلون
ها در 1996 در کشور
هند و اقدامات مربوطه

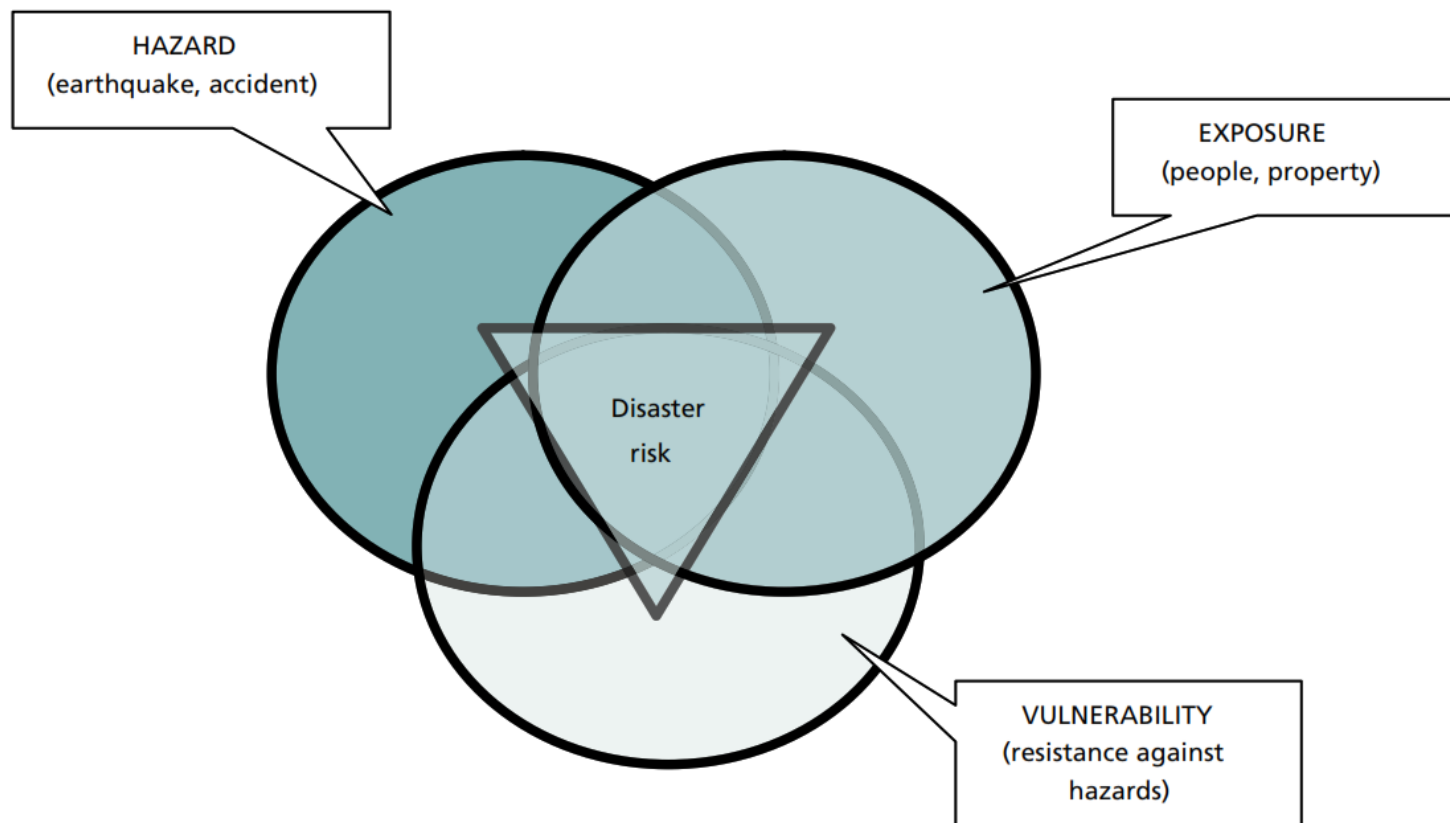
BOX 14

The Code of Conduct for Responsible Fisheries (CCRF)

Against a background of clear signs of overexploitation of important fish stocks, changes in ecosystems, significant economic losses and international conflicts with regard to management and fish trade, FAO developed the CCRF, which was adopted in 1995. It is a voluntary instrument, setting out principles and international standards for responsible practices with regard to effective conservation, management and development of living aquatic resources within the context of a sustainable ecosystem and biodiversity.

مدیریت مسئولانه در
حوزه شیلات

FIGURE 1
Disaster risk = function (hazard, exposure, vulnerability)



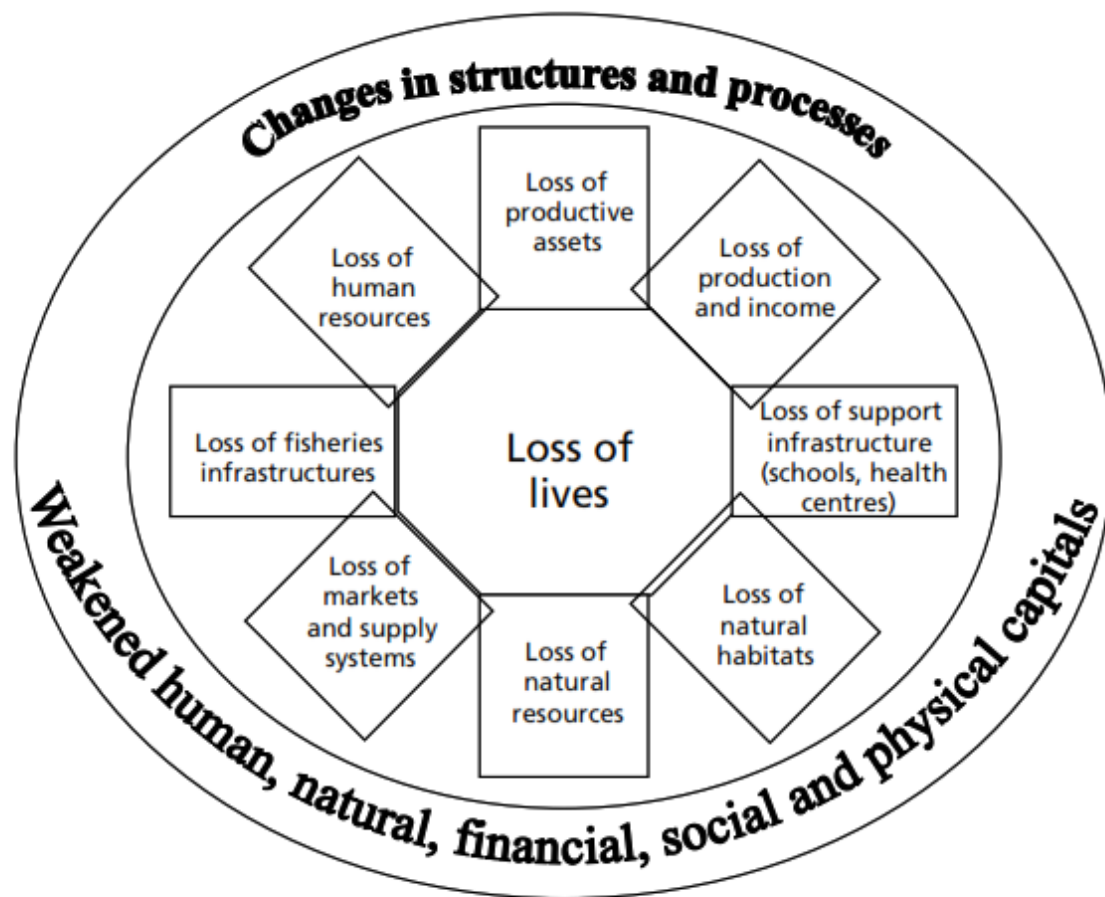
Source: ADRC, 2005, p. 5.

اقدام مهم در ارزیابی
ریسک ناشی از سیل و بلا
یای طبیعی

با توجه به سه عنصر :

1. خطر
2. تاثیر گذاری
3. تاب اوری و مقاومت

FIGURE 2
Disaster impact on the livelihoods of coastal communities



انچه آبرزی پروران و
صاحبان مزارع در اثر
بلايای طبیعی از دست می
دهند :

1. تولید
2. درآمد
3. نیازهای اجتماعی
4. محیط طبیعی
5. بازار محصولات مزرعه
6. زیر ساخت ها
7. منابع انسانی

برخی راهکار های ارائه شده توسط سازمان خوار بار جهانی (FAO)
در اقدامات مدیریتی به هنگام بروز حوادث غیر مترقبه (سیل) در
حوزه شیلات و ابریان

- ▶ 1. **Availability of fish and fishery products** should be included in food supply assessments and the resumption of fish production given priority in areas where fish is an important part of the diet and of the livelihood of the communities.
- ▶ 2. **Relevant fisheries/aquaculture experts** – local and international as required –should form part of assessment teams.

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- ▶ 3. **Needs assessments should take a holistic approach** and a livelihood focus but the specific characteristics of the fisheries sector need to be taken into consideration in disaster response.
- ▶ 4. **Beneficiary selection needs** to be based on a good understanding of local livelihood systems and community structures and involve the target communities themselves.

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- ▶ 6. **Coordination of national and international agencies** and organizations involved in disaster response needs to be ensured and **appropriate budgets for supporting** the responsible authorities in this task should be allocated by their humanitarian and development partners.
- ▶ 7. **The participation of the affected households and local institutions in assessments, planning, implementation and monitoring** has to be ensured for effective and efficient emergency and rehabilitation support.

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- ▶ 8. **Training and technical support** is needed to ensure that assistance is sound and appropriate and technically competent humanitarian and development agencies should make such support an important component of their disaster response.
- ▶ 9. **Needs assessments should continue** on a regular basis and special attention should be given to issues related to the impact of assistance on fishery resources and the environment..

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▶ **10. Local natural resource management and conservation capacities and capabilities should be strengthened** as part of rehabilitation, reconstruction and recovery.



▶ **11. Rehabilitation, reconstruction and recovery activities should aim at building livelihoods that are better than those existing** before the disaster; any contribution to “poverty traps” should be avoided.

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- ▶ 12. The promotion of responsible and sustainable fisheries and aquaculture **should be given high priority as part of disaster prevention** and in addressing the vulnerabilities of fishing and fish farming
- ▶ 13. **Increased assistance should be provided to developing countries** and coastal communities for improving safety at sea, particularly in coastal areas prone to natural disasters.

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- ▶ 14. **Aquaculture planning should be improved and the preparedness for dealing with disease outbreaks** and other threats in the growing aquaculture subsector needs to be strengthened at the local, national, regional and global levels.
- ▶ 15. The fisheries sector should be explicitly included in the **national disaster**

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- ▶ 17. **Effective early warning systems and other mechanisms for disaster mitigation** such as cyclone shelters need to be developed and/or improved, as required. These need to take the specific requirements of fishing communities into consideration, e.g. covering migratory fishers and fish workers.
- ▶ 18. **Information on and the understanding of disasters** and their impact on the livelihoods of fishing communities and their environment need to be improved. **Lessons learned**

بَا تَشْكُر