



## Understanding Integrated Risk Management Approach

### Introduction

Indians have a long history of living with disasters. In recent times, disasters are worsening due to climate shocks and ecological degradation. Climate risks include heatwaves, flashfloods, cloudbursts, intense rainfall events, meteorological droughts (longer dry days during monsoons), sea-level rise and frequent events of lightning and thunderstorms. Loss of water bodies, floodplains, deforestation and land degradation are ecological losses that are also deepening disasters in rural and urban India. There is a need to address disaster, climate and ecological risks together to build resilience at the local level, bolstered by enabling policies and investment.

### Integrated Risk Management

The Partners for Resilience<sup>1</sup> (PfR) programme adopts the **Integrated Risk Management (IRM)** approach to strengthens local resilience to **disasters, climate and ecological risks**. Communities are able to understand and act upon weather forecasts, factor in climate projections into local development plans, map and restore water bodies, green cover and degraded lands.

In practice, the IRM approach uses community-based disaster risk reduction (CBDRR) strategies to prepare vulnerable men and women for disasters, weather and climate shocks and ecological losses. IRM converges Disaster Risk Reduction, Climate Change Adaptation (CCA) and Ecosystem Management and Restoration

(EMR) through local behavioural change, development plans and financial investments at the panchayat, district and State levels. The IRM approach helps implement the Prime Minister's 10-point agenda on disaster risk reduction.

### Risk assessments, Forecast-based Actions

IRM entails doing a Climate Risk Assessment (CRAs) at the panchayat and district level. This is done by using science-based knowledge available with State Action Plans on Climate Change (SAPCCs), the Indian Meteorological Department and research institutions and universities under NATCOM. Field-based anecdotal evidence is gathered through Participatory Rural Appraisals (PRAs) by undertaking Hazards, Vulnerabilities Capacities Assessments (HVCAs) at the community level. Risk assessments will include (a) available climate change projections; (b) weather warnings and medium- to long-term weather forecasts; (c) changing profile of hazards, especially due to variations in temperature, rainfall, wind and ecological degradation; (d) new and changing impacts of these hazards on health, water and sanitation (WASH) and livelihoods; and (e) mapping of degraded or encroached 'blue' wetlands and 'green' afforested, pasture and farmlands.

Based on Climate Risk Assessments, each Gram Panchayat Development Plan (GPDP), District Disaster Development Plan (DDMPs) and Annual Plans of Line Departments is able to factor in disaster, climate and ecological risks in their annual plans and adopt 'early warning early action' interventions. Forecase-based interventions can be translated into

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<sup>1</sup> [www.partnersforresilience.nl](http://www.partnersforresilience.nl)

Standard Operating Procedures (SOPs) for line departments at the district level so that they can provide support such as food rations or cash transfers *before* a disaster occurs. Forecast-based actions are gaining ground the world over.

### **The importance of water bodies/wetlands**

Up to 90% of natural disasters are water-related.<sup>2</sup> Floods, droughts, cyclones are all a case of either too much water or too less water. Floods are endemic in ecosystems such as flood-plains and in deltas. Arid areas will witness droughts. Coastal zones will experience cyclones and floods.

Protection of water bodies, their catchment areas, the river banks and floodplains – together called wetlands - helps mitigate water-related disasters in many ways. This includes desiltation and revitalisation of ponds and other water bodies; plantations on slopes, along banks, coasts and degraded lands; clearance of encroachments/built-up area; creation of water bodies from harvesting rainwater or as soak pits, etc. These ‘blue’ and ‘green’ interventions help in mitigating damage from floods, landslides, droughts and sea-storms. ‘Blue’ and ‘green’ interventions also help improve the local climate. For example, by reducing the heat island effect or the long dry spells during monsoons. In drought-prone areas, wetlands protection combined with rainwater harvesting and water conservation support plantations and help mitigate droughts. This also allows availability of water for livelihoods and households.

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<sup>22</sup><https://www.unenvironment.org/explore-topics/water/what-we-do/addressing-water-related-conflict-and-disasters>

At the practice level, mapping of wetlands should be part of the PRAs and HVCAs. At the policy level, there is a need to address restoration of wetlands, rainwater harvesting and conservation as part of the guidelines for GPDPs and the DDMPs.

### **Local Convergence of Global Agreements 2030**

The IRM approach brings DRR, CCA, ecosystem rejuvenation and sustainable development together at the local level. This local convergence contributes to *five global frameworks* that India has signed up to for implementation between 2015-2030 through national plans and programmes.

DRR interventions contribute to the *Sendai Framework on Disaster Risk Reduction*, implemented through the Disaster Management Plans. Combining DRR interventions to factor in local adaptation to climate risks (climate change adaptation) contributes to the *Paris Agreement on Climate Change*, implemented through the State Action Plans on Climate Change (SAPCCs). Protection of wetlands through ‘blue’ and ‘green’ interventions contributes to the *Ramsar Convention*, implemented through the National Wetlands Conservation Programme. Working on urban resilience contributes to the *New Urban Agenda*. When village development plans and district plans factor in DRR, CCA and ecosystem protection and restoration, it makes development more resilient and this contributes to the *Sustainable Development Goals (SDGs)*.

**For more information:** [www.indianredcross.org](http://www.indianredcross.org)