



# DISASTER SIMULATION EXERCISES



*Indian Red Cross Society*

Tamil Nadu

Andhra Pradesh

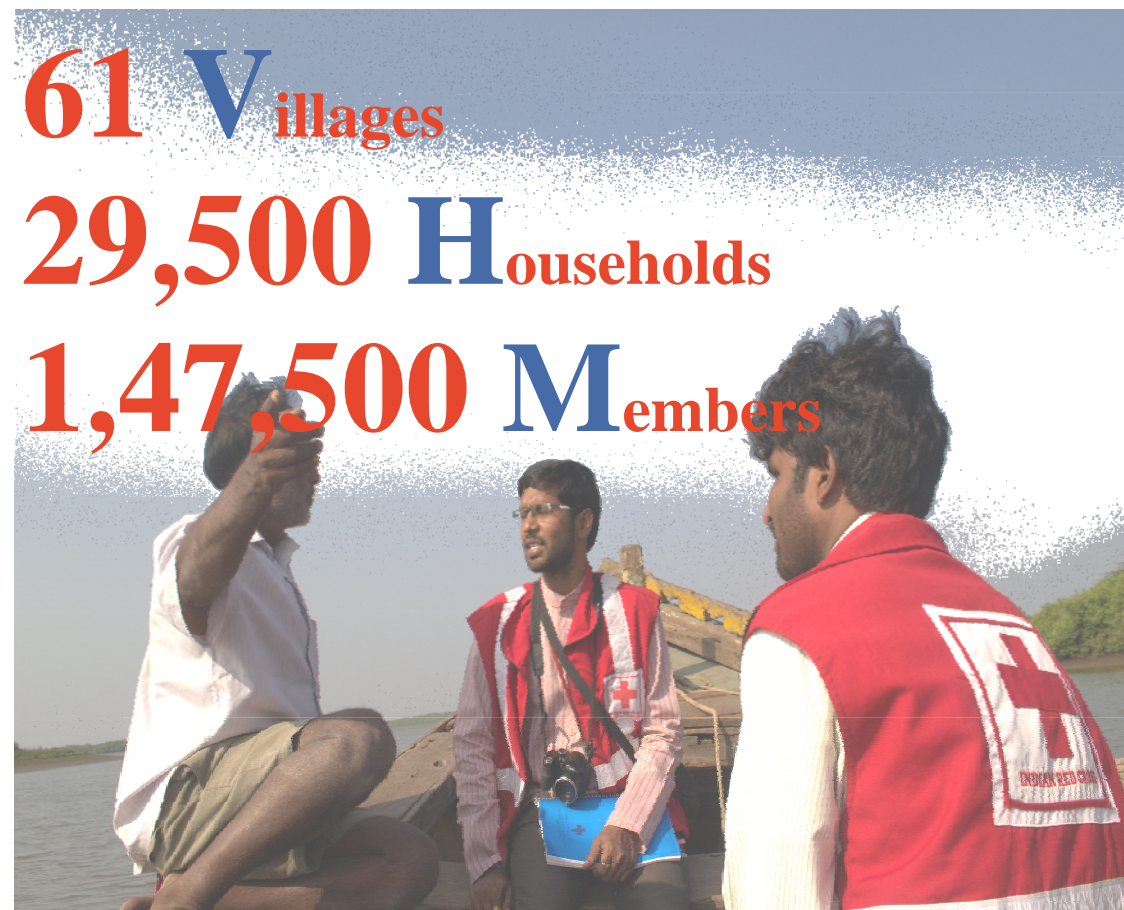
Telangana



**CANADIAN  
RED CROSS**

# Overview of the Programs

The Indian Red Cross Society (IRCS) with support from Canadian Red Cross (CRC) has been implementing the post Tsunami (2004) development programs in two major Tsunami affected Indian States - Tamil Nadu and Andhra Pradesh. Through the Integrated Program for Community Development (IPCD) in Tamil Nadu and the Community-Based Disaster Risk Reduction (CBDRR) program in Andhra Pradesh, IRCS/CRC have been working in 61 villages, aiming to reinforce the resilience of these communities.



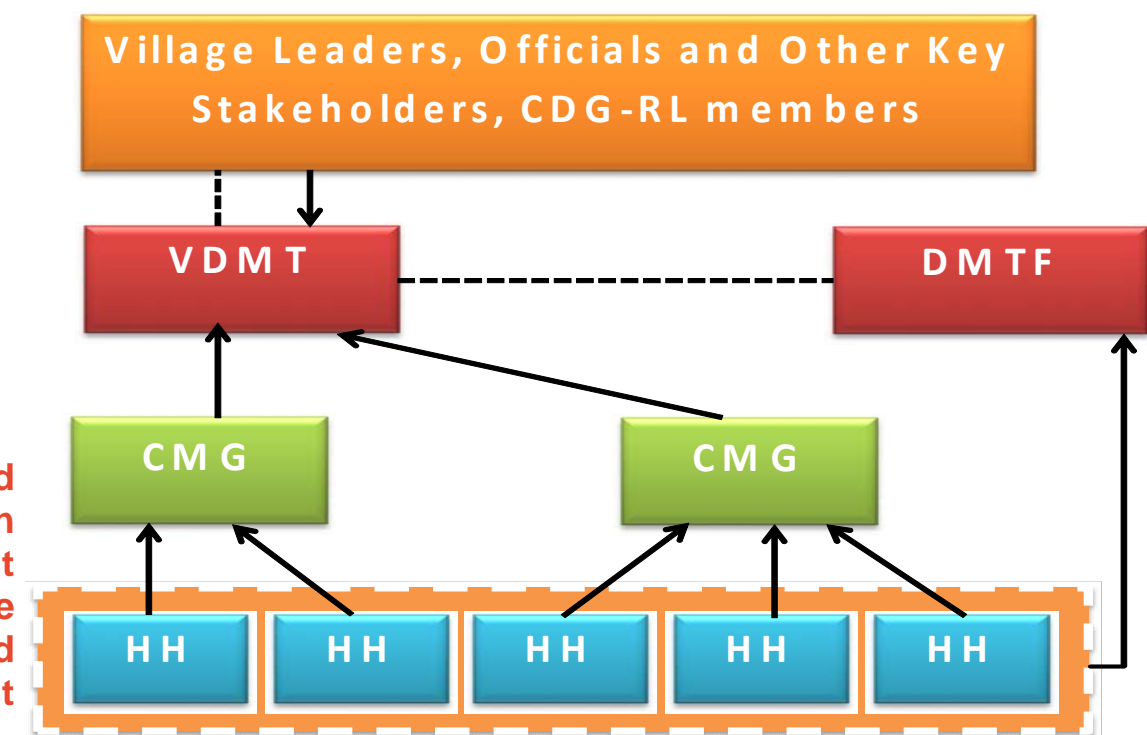
**61 Villages**  
**29,500 Households**  
**1,47,500 Members**

The two programs covered a total of 29,500 households (approx. 147,500 members), focusing on integrated disaster risk reduction (DRR) and CBDRR programs. The In Tamil Nadu, apart from CRC supported programs in DRR, the focus is also on improved health and livelihoods, as well as violence prevention. The Tamil Nadu program also covers approx. 30,000 students from 79 schools with an integrated and age-specific curriculum of Health, DRR and Violence Prevention. The institutional Capacity Building of IRCS is another key objective of CRC's support in India and has been integrated in both the IPCD and CBDRR programs. The India are perfectly in sync with the IRCS strategic development plans and CRC International strategy. Both the programs adopt community based program implementation approach.

## The Evaluation Findings

- + Program Villages in both states are now better prepared than respective comparison villages
- + Efforts to increase household & community preparedness under programs are highly relevant
- + Both programs have produced advances in public participation, social cohesion and towards gender equity
- + Existence & Knowledge of early warning systems, evacuation drills & disaster teams is broad

### Disaster Risk Reduction Village-level Structure



“Early warning now comes with drums and microphones. We are now made aware, well in advance by the Village Disaster Management Committee members of the Red Cross, unlike during Tsunami which took us by shock and surprise. Then, we had absolutely no idea about where to run or what to do.”

C H Suranaryan, Fisherman, Sreekurmam village.

VDMT – Villages Disaster Management Team; CMG – Community Micro Group;  
 DMTF – Disaster Management Task Force; HH – Household  
 ———> The members; - - - - - Working linkages



# Geographical Hazards of Tamil Nadu, Andhra Pradesh and Telangana

The Indian sub-continent is the one of the most disaster prone regions of the world, having a coast line of 7516 kms, and is exposed to nearly 10% of the world's Tropical Cyclones. According to the Government disaster management department, four States (Andhra Pradesh, Odisha, Tamil Nadu and West Bengal) and one UT (Pondicherry) on the East Coast and One State (Gujarat) on the West Coast are more vulnerable to cyclone disasters. 40% of the total population lives within 100 km of coastline. When the last massive disaster, the 2004 Indian Ocean Tsunami hit the shores of **Pondicherry, Tamil Nadu and Andhra Pradesh**, it had not only taken a huge human toll, but also damaged houses and infrastructure

and destroyed the coastal livelihoods. Floods and storms were the highest no. of reported hazards till 2010 and even during the recent years there has been no respite. The coastal areas of the Indian states of Tamil Nadu and Andhra Pradesh remain vulnerable to frequent floods and cyclonic storms that not only claim precious lives but cause widespread damage to houses, infrastructure and livelihoods. In the last two years 2013 & 2014 cyclones Phailin, Helen, Lehar and Hud-Hud have caused widespread damage in both the states of Andhra Pradesh and Tamil Nadu, so much so that the civil administration is still recovering from the losses.



*Red Cross staff and volunteers clearing roads after the devastation by cyclone Hud-Hud in 2014*



*Red Cross staff and volunteers disinfecting areas after the devastation by cyclone Hud-Hud in 2014*

In the coastal area of both Andhra Pradesh and Tamil Nadu, proximity to the sea and the rivers, makes the village communities dependent on them for livelihood. Most of the people are farmers or fishermen. And this very geographical location also makes them extremely vulnerable.



**“The water kept rising like a huge wall, no one knew where to run and there was widespread damage of boats and nets, the main components of our livelihoods.”**

**Komara Paulamma (extreme left), a part of the IRCS/CRC Community Disaster management Committee remembers the horrific landfall of the Tsunami, 10 years ago.**

# 24 Simulations

## Tamil Nadu

Akkaraipetta // P R Puram // North Pudukudi // Muthukuda // R Pudupattinam // Ammapattinam // Keelavadiyakkadu // Sengakadu // Northvellathikadu // Rasapetti // Pudukuppam // Thazhankuda // Earipurkari

## Andhra Pradesh

Edalalanka // Nidzzur // Mukkam // Kanuru // Sunkesula // Konapapapeta // Mondoddi // Rayannapeta // Barripeta // Irevendi //



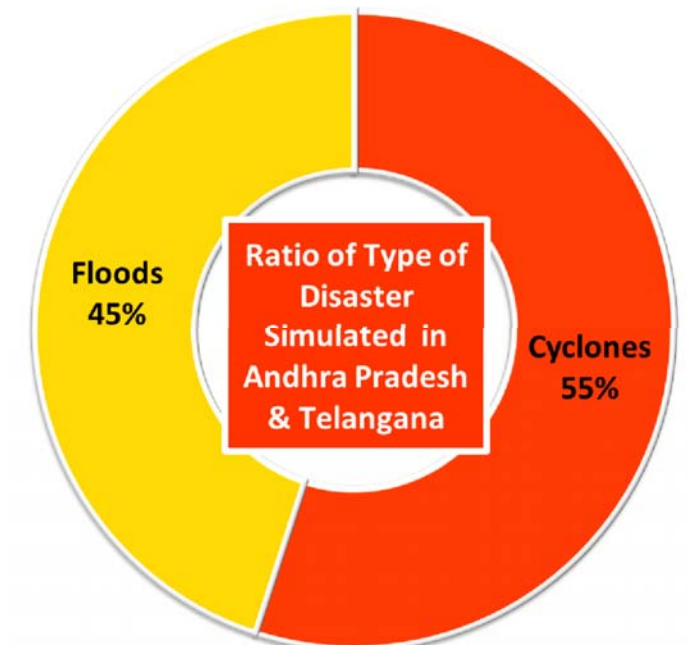
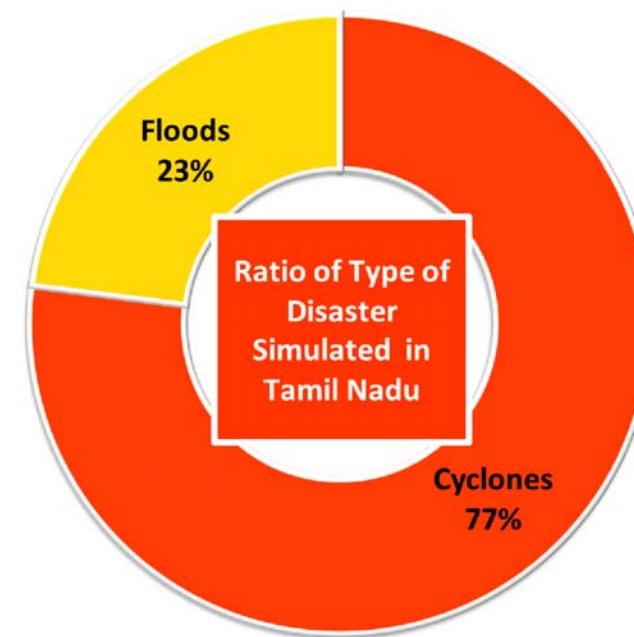
# The Simulation Scenario

Coastal villages and communities regularly face a threat from cyclonic storms and flooding. Usually when disasters strike, local communities do not know what to do. It is imperative to train them in rescue, first aid and other support so that precious lives could be saved. Simulation exercises are a good test for these learnt skills. They provide a realistic insight into the capacities of communities to deal with emergencies. For the simulation, the scenario's of Floods and Cyclones were used



Simulation exercise is one of the methodology for assessing the community's readiness in pre, during and post disaster response. The Disaster Risk Reduction programmes being implemented in coastal villages of Andhra Pradesh and Tamil Nadu carried out simulation exercises for the first time as a test for the community and other stake holders. It is a way to also assess the impact of the program in building community resilience. This knowledge of the

community is also pivotal in improving preparedness levels, response mechanism and capacity of the community in the planning for the future programmes.



“

The simulation activity is a very good exercise as we come to know how well we are prepared for the disaster. It also motivates other members of the community to participate in disaster risk reduction trainings.”

**B Krishna, Sarpanch, Nidzzur village, Andhra Pradesh**

# Testing Cultivated DRR Capacities During Floods & Cyclones



**Increasing Recognition & Visibility of IRCS programs by testing impact of preparedness & response mechanism of program communities**

## Components of Simulation

- \* Early Warning
- \* Net working, Coordination & Tracing
- \* Evacuation, Search & Rescue
- \* Logistics & Shelter Management
- \* First Aid
- \* Health, Hygiene & Watsan
- \* Livestock / Asset Management

## Simulation Outcomes

- + Strengthened the partnership between IRCS and local civil authorities like the Police, Fire Services, Health Depts.
- + Helped communities gauge their strengths and weaknesses
- + Improved organizational systems including civil authorities for better management during actual disasters
- + Improved operational skills of the communities and helped in increasing the awareness levels regarding disaster and preparedness.

# Simulations

**25 %** of the households from each community were involved

## Participation of Media

Media was also invited to cover the Simulation Exercise to potentially provide greater visibility to IRCS and its work. News channels, print media and digital platforms are definitely a means to get more coverage and therefore more visibility for the program.



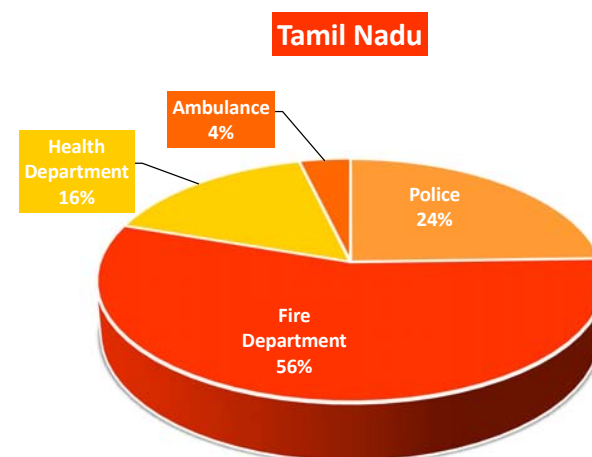
“Simulation Exercises such as this are very helpful to the community members and also the concerned Government Departments as it contributes greatly to disaster preparedness.”

**Thirumalesh, Village Revenue Officer, Mahbubnagar District**

	Tamil Nadu					Andhra Pradesh & Telangana						
Districts	Nagai	Pudulottai	Tiruvarur	Cuddalore	Thanjavur	Krishna	Kurnool	Vizianagaram	E. Godavari	Mahbubnagar	Khammam	TOTAL:
Male	40	355	335	225	110	204	222	630	81	125	149	2,476
Female	70	280	485	675	45	112	124	680	28	52	54	2,605
Children	75	157	105	100	40	125	212	270	35	68	57	1,244
<b>Total number of participants:</b>											<b>6,325</b>	

## Participation of Government Departments

Dates for the Simulation Exercise were shared with the Govt. Departments at district level well in advance. Various Government Departments such as the Police and Fire Department and the Health Department were also invited. They participated in the community led simulation exercise in activities like search and rescue of the people in affected areas and medical assistance to the injured people during floods and cyclones.



**290** participants from Govt. Dept. were part of the simulation being led by community members

