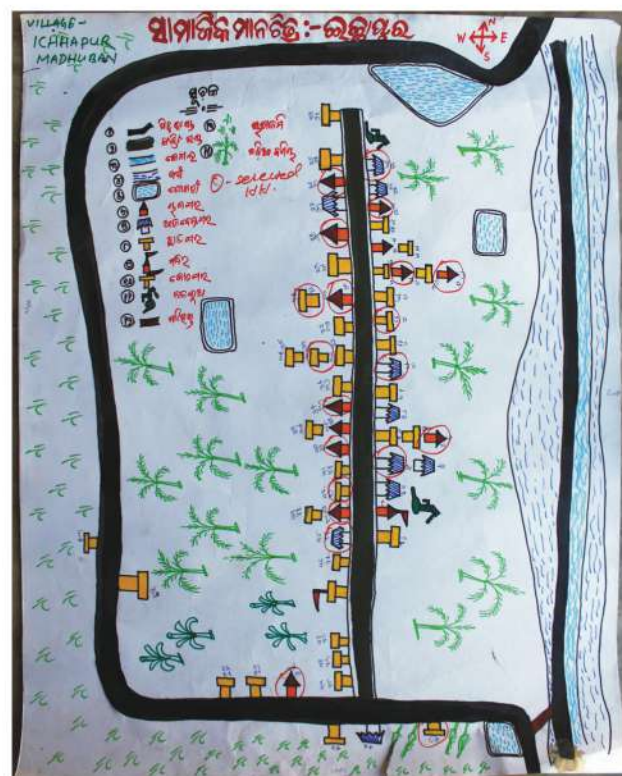


## Policy Implication

Risk Reduction	Emergency Response	Risk Transfer
<ul style="list-style-type: none"> <li>• More Cyclone resilient house</li> <li>• More plantation</li> <li>• Raising the height of river embankments</li> <li>• Sustainable livelihood support and shelter</li> <li>• Proper drainage system</li> <li>• Livelihood diversification</li> </ul>	<ul style="list-style-type: none"> <li>• Timely evacuation</li> <li>• Ensuring basic facilities inside the cyclone shelter</li> <li>• Timely and adequate relief</li> </ul>	<ul style="list-style-type: none"> <li>• Loan provision for income generation</li> <li>• Micro insurance with low premium for small businesses.</li> <li>• Adequate compensation</li> </ul>

### Context: Methods Toolbox for Assessing Loss and Damage in Vulnerable Communities

The India case study on Loss and Damage due to Climatic Extremes at Local Level was conducted to test a new method toolbox for assessing Loss and Damage in vulnerable communities. Besides the India case study, the method toolbox has been tested in Nepal (landslide) and Pakistan (drought and floods).



A village PRA map of Ichhapur village through which sample selection was done for the study.

The methodology is people-centered. A mixed method approach was used for primary data collection which included household in-depth interviews, Focused Group Discussion separately with men and women ensuring representation of most vulnerable (economically, socially and physically) and expert interviews at different levels. Secondary data was collected and used among.

### Conclusion

- The most successful measures were, houses having special characteristics which helped in reducing impacts of cyclone
- Many villagers' livelihoods were affected when countless trees were destroyed by heavy winds during Cyclone *Phailin*.
- Even after several preventive measures cyclone have badly impacted the lives of common people.
- The new methods toolbox used for this case study proved a valuable resource for understanding not just what is lost in disasters, but also how and why.



Korea Environment Institute



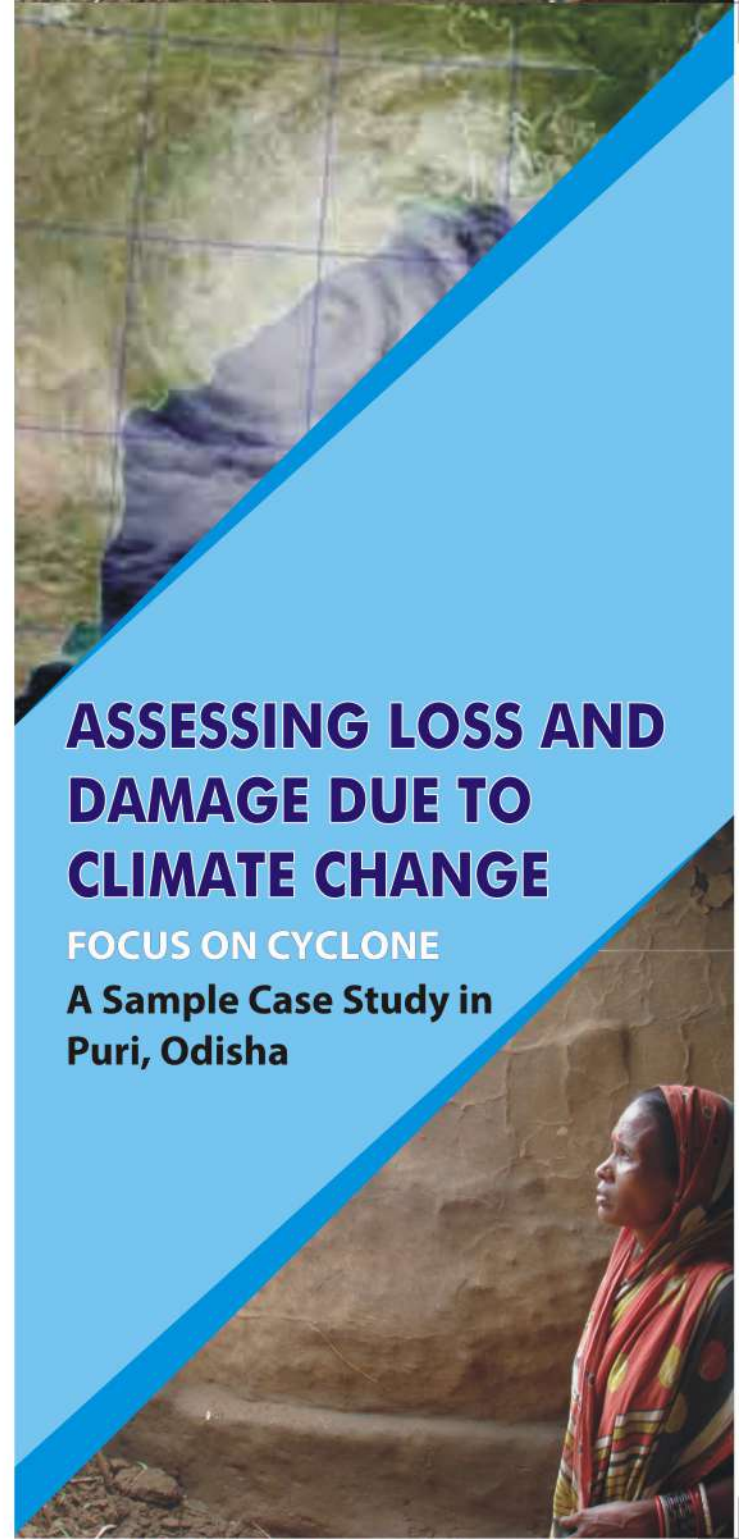
For more information contact: [bestteam@aidmi.org](mailto:bestteam@aidmi.org)

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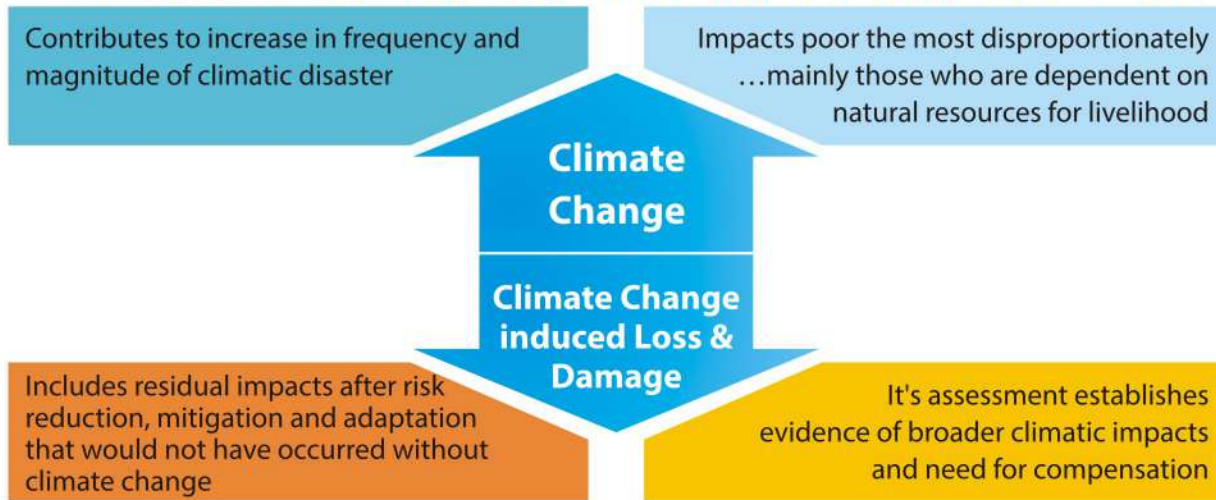
# ASSESSING LOSS AND DAMAGE DUE TO CLIMATE CHANGE

## FOCUS ON CYCLONE

### A Sample Case Study in Puri, Odisha



## WHY LOSS AND DAMAGE ASSESSMENT AGAINST CLIMATE CHANGE?



Scientific information and evidence needed to understand specific impacts of climatic stressors are rarely available. A method tool box to produce such information and evidence at local level remains an important and undiscovered experiment so far. Thus, under this study, method tool box was developed and tested in Puri, Odisha to pilot methodology for local assessment of loss and damage due to climate change. It was expected that such tool will enable to establish evidence of residual impacts even after mitigation and adaptation so that compensation needs can be identified and advocated.

### THE CASE

Cyclones have made severe visible destructions in Odisha in the last few decades. The very severe cyclonic storm, *Phailin* crossed Odisha around 2230 hrs IST of 12th October 2013 with a sustained maximum surface wind speed of 200-210 kmph gusting to 220 kmph (IMD; 2013). It affected more than 13 million people and killed approximately 23 due to the cyclone and an additional 23 due to flash flooding in the aftermath of the cyclone (UNEP Global Environment Alert Service, 2013).

#### Key Research Questions Addressed

- Is the definition and debate on "Loss and Damage" as happening at the global level is applicable at local level?
- Is "Loss and Damage" assessment is possible at local level?

- Can "Loss and Damage" assessment be useful for policy making at local level?
- How to assess economic and non-economic losses and damages due to climate change at local level?
- What can be the requirements and results from 'Loss and Damage' assessment?

#### General Profile of the Respondents

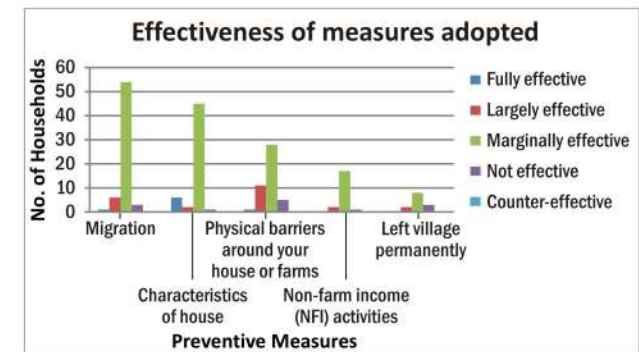
**Total sample size: 219 Households**

- 59% Male-headed household
- 17% of them have never been to school
- 22% of them have attended up to literacy classes
- 63% were landless
- 63% were involved in agricultural farming
- 64% owned livestock
- 10% were engaged in fishing

## KEY FINDINGS

### Preventive Measures

- 91% adopted preventive measures
- 25% house had characteristics that helped reduce impacts which was the most effective measure
- 21% placed physical barrier around house or farm land
- Only 9% took up non-farm income activities
- 13% evacuated to cyclone shelter or nearest school to reduce cyclone impacts
- 30% migrated to other place before cyclone
- 6% left the village permanently which was the least effective measure.



### Impact Despite Preventive Measures

- Severe impacts were found on Housing 94%, Crop 79%, Health 61% and Tree 69%
- The highest economic impact/victim was due to loss of trees @ \$ 372/victim.
- Damages to houses and impact due to crop loss were also severe.

