

Scientific information

Past weather trends (nearest weather station):

- Increased average temperature and no. of warm days
- Increase /decrease in total annual rainfall
- Increase in number of days with heavy rainfall
- Etc.

Future changes (whole country – cannot zoom in on target area):

- Further increases in average temperature and frequency of 'hot days'
- An increase in extreme rainfall events in the monsoons will be 'very likely'

Community information – assessment tools

Seasonal calendars document seasonal shifts in weather, hazards, health and livelihoods

Example of Seasonal Calendar

		J	Feb	Ma	Apr	Ma	Jun	Jul	Au	Sep	Oct	No	Dec
		r	r	y	y	g	v	v					
Hazard	Flooding	Red	Red							Red	Red	Red	Red
	Sea surges	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Livelihood	Cabbage		Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
			Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
Health	Malaria	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

Key: Red = present, Blue = past (thinking back 30 years)

Guiding questions for analysis:

- What were the observed changes in the seasonal events such as weather, livelihood, health problems, etc.?
- If there were changes in the seasonal cycle, what actions the community has taken or is considering?

Comparative mappings identify community growth, areas impacted by different hazards, changes in water sources etc. Also, external ("upstream") factors beyond community control should be discussed/noted.

Guiding questions for analysis::

- How much change has happened in community's environment and land use?
- What are the "old" and "new" areas affected by different hazards? Where there any changes in the exposure?
- What were the hazards experienced by the community due to the external factors?

Historical Profiles identify changes in frequency and intensity of hazardous (and other) events.

Guiding question:

- What events had contributed to the increased risk?

Livelihoods Analyses identify changes in peoples' livelihoods, some of which may be (significantly) affected by variations in rainfall patterns etc. but also by social and economic factors.

Hazards – Vulnerability – Capacity Matrices capture e.g. existing early warning methods, which elements are currently most at risk, and how hazards and disasters are normally dealt with (current practices are basis for improvements and scaling up).

Applying a 'climate-smart' community assessment/VCA – A quick guide

Changes observed by the community	Possible reasons for changes	
	Evidence based on scientific information	Other factors that may explain changes observed by communities
Example 1 Sea eroding the coastline	Sea level rise 8 mm per year in xx	Some sand mining along the coast
Example 2 Getting hotter in the summer	Temperature rising	
Example 3 Flooding more often	Meteorological office reports that no change in extreme rainfall events	Logging present upstream, probably affecting flow

Questions to guide the Planning:

- Does the information people report match the scientific climate information? (If not, then the reported changes may have other reasons than climate change, and then the future climate projections are less helpful in the planning)
- How is climate change affecting existing risk patterns?
- If the trends observed by communities and science continue, how may risks shift in the future?
- How do people normally deal with the challenges? Can existing practices be adjusted and scaled up to handle more frequent and more severe events?

Community risk reduction plan elements (examples)

Community disaster preparedness (DP) plans:

- Contingency plans and SOPs not only based on *past* disaster events and hazards knowledge, but prepare for more *extreme* events
- Early warnings (awareness and practice) enhanced – start with available public forecasts

Small scale infrastructure measures:

- Design with new extremes in mind; seek technical assistance
- consider (supplementary?) sustainable 'bio-engineering' alternatives to maintenance-demanding concrete solutions

Water-related schemes:

- If dry spells/water shortage is already a challenge, just seeking more/new water sources may ot be a sustainable solution; a "no-regret" approach is to manage available water better, i.e. water conservation, more water harvesting etc.

Livelihoods:

- If challenges are agriculture, help communities seek external advice for adapting to changing water/temperature conditions = "demand creation" towards government extension services, or assistance from specialised NGOs
- Argue for *agricultural diversification* – not shifts – to prepare for more a variable future

Advocacy

Use the evidence gathered:

- Stimulate community "demand creation" towards Township authorities on the need for assistance to meet increasingly challenging conditions
- Feed the examples to the RC NHQ so they can use it to influence government priorities so climate change adaptation funding reaches people in need in due time