

Pinning down Vulnerability: From Narratives to Numbers

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Understanding Vulnerability

- Different perspectives, approaches
- Vulnerability is a '*set of conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of a community to the impact of hazards,*' (the Hyogo Framework 2005-2015).
- Vulnerability is:
 - Multi-dimensional and differential
 - Scale-dependent and context specific
 - Dynamic: changing degree of susceptibility

Measuring Vulnerability

- An ongoing challenge (Adger 2006)
- Qualitative methods: participatory, community focus, NGO/donor led, e.g. CVA, PVCA
- Quantitative: indicators, tend to focus on physical, economic aspects, measurable
- Policy gap – lack of understanding of the ‘how to’ of vulnerability in CC-A and DDR
- Need for a simple tool which can be used at scale by communities, NGOs to track change as well as inform policy – iterative, learning

The VCI: a beginning

- Quantifying such a complex and nuanced concept an exercise in generalization
- Theoretically informed: extensive literature
- VCI is indicative, under testing/review
- Based on 11 most critical drivers of vulnerability distributed between 3 categories:
 - Material: 35%
 - Institutional: 50%
 - Attitudinal: 15%
- Indicators / scores differ slightly for rural / urban and household / community VCIs

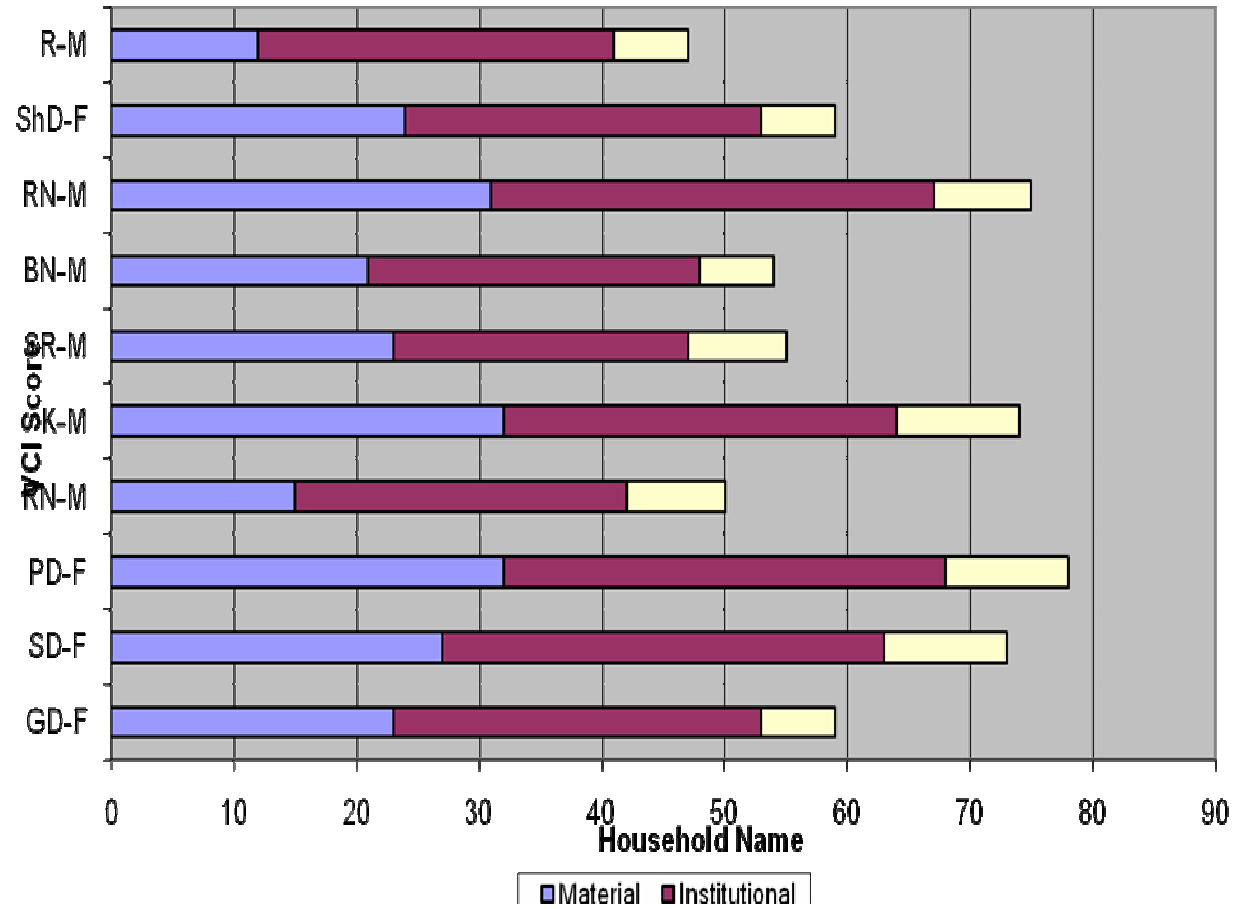
Types of Vulnerability and Indicators		Vul.
	Material Vulnerability	35
1	<p><u>Income Source</u>: If 100 per cent dependent on a local level productive asset, e.g., fishing, land, shop, etc.</p> <ul style="list-style-type: none"> • Lower vulnerability score by 1 for every 10 per cent of non-local income reported • Subtract 2 if the income source is stable and insensitive to local hazard. • Add 2 to the score if the income source is unstable, e.g., day labour. 	10/12
2	<p><u>Educational Attainment</u>: If no member of the household is literate</p> <ul style="list-style-type: none"> • Lower vulnerability score by 1 for every 5 years of schooling of the most educated male member of the household. • Lower the score by 2 for every female member's 5 year schooling. 	5
3	<p><u>Assets</u>: If none of the assets are immediately fungible, e.g., farm implements, household items</p> <ul style="list-style-type: none"> • Lower the score by 1 for every Rs. 20,000 of fungible assets, e.g., tractor, animals, savings, jewellery (to be calibrated empirically). 	8
4	<p><u>Exposure</u>: Distance from the source of prime hazard, e.g., river, coastline, landslide zone. If within the equivalent of 10-yr. flood plain</p> <ul style="list-style-type: none"> • Lower the score by 1 for the equivalent of every 10-yr. flood plain residence and or assets. • Lower the score by 1 for every piece of evidence of hazard proofing, e.g., building of a house on higher plinth for floods, light construction, low cost construction which could be rebuilt with local resources. 	10

	Institutional Vulnerability	50
5	<p><u>Social Networks:</u> Membership of ethnic, caste, professional or religious organization or grouping. If none, then</p> <ul style="list-style-type: none"> • Lower vulnerability score by 2 for every instance of past assistance by a group/organization in adversity. • Lower multiple times if multiple organizations. • Lower score by proportion of respondents reporting the organization to be efficacious. 	10
6	<p><u>Extra-local kinship ties:</u> If no extra-local kinship or other ties which could be source of shelter and assistance during adversity</p> <ul style="list-style-type: none"> • Lower the score by 2 for every immediate family member living extra-locally • Lower the score by 1 for every non-immediate family member living outside 	5
7	<p><u>Infrastructure:</u></p> <p>Lack of an all-weather road</p>	4
	If seasonal road then	
	Lack of electricity	2
	Lack of clean drinking water	2
	Lack of robust telecommunications (mobile coverage)	4
	Lack of local medical facility	4
8	<p><u>Proportion of dependents in a household:</u></p> <p>If the proportion is greater than 50 per cent</p> <ul style="list-style-type: none"> • Lower the number by 1 for every additional earning member <p>If a single parent headed household</p>	5 or 10
9	<p><u>Warning Systems:</u></p> <p>Lack of a warning system</p>	4
	Warning system exists but people are not aware of it or don't trust it	4
10	<u>Membership of disadvantaged lower caste, religious or ethnic minority</u>	5

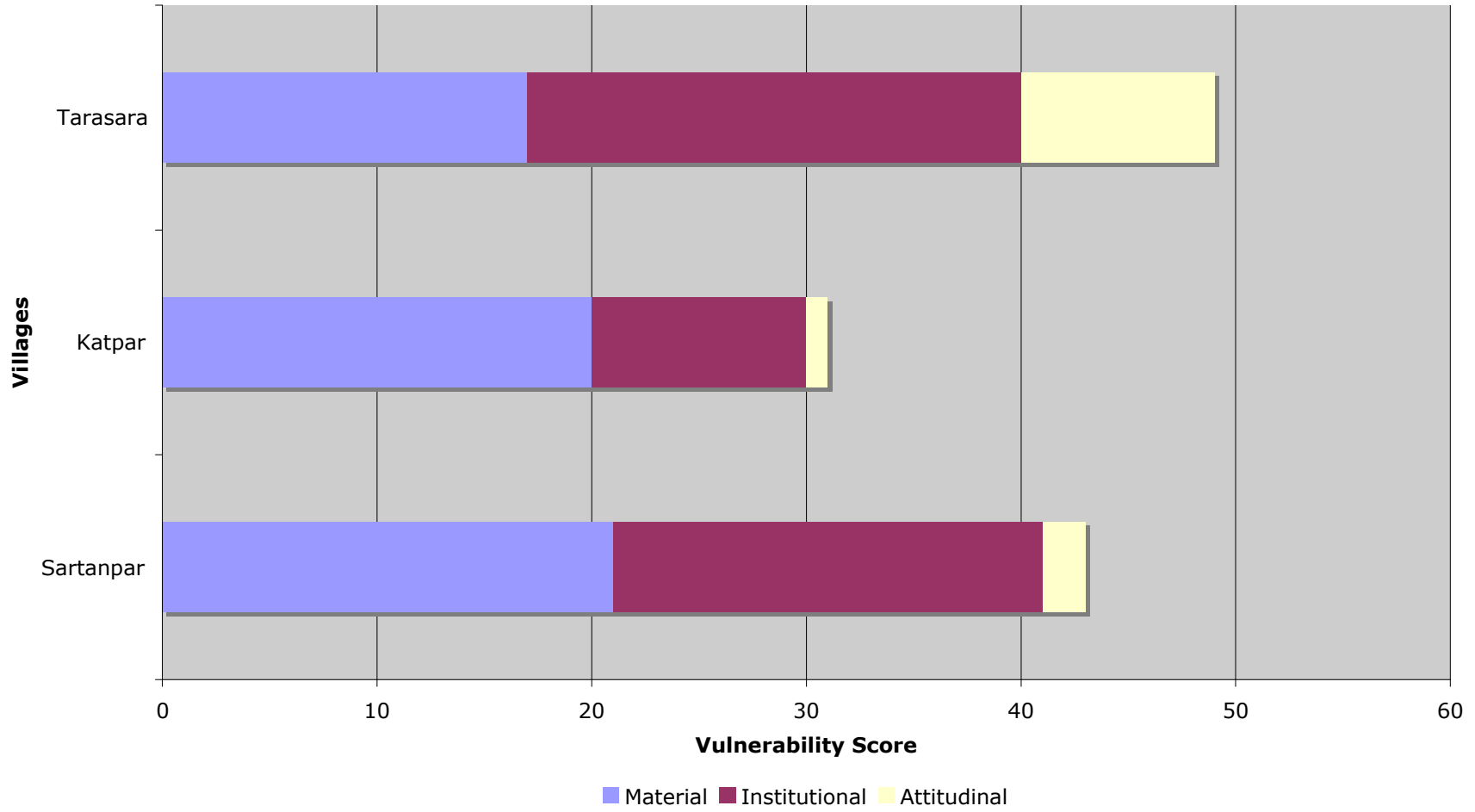
11	<p>Attitudinal Vulnerability</p> <p><u>Sense of Empowerment:</u> Self declared community leadership or Proximity to community leadership Proximity to regional leadership structure or Access to national leadership structure Lack of access to community or regional leadership Lack of knowledge about potential hazards (lower score by 1 for every type of hazard and its intensity accurately listed by respondents)</p>	<p>15</p> <p>10</p> <p>5</p>
	Total Possible Vulnerability Score	100

Insights from the field

Household VCI Scores for Sonatkar Village UP



Community Vulnerability Scores in Gujarat



Methodological challenges

- Capacity building of field team on understanding vulnerability, gender, poverty linkages – takes time, resources
- Design of the questionnaire – keep it simple, open / close ended questions, narratives
- Working with key informants – members of vulnerable groups, community institutions
- Discussing scores and their rationale in the team – some consensus needed, subjective?