

# Community Risk Assessment Steps and Procedures Hazards, Vulnerability, Capacity Assessment, Actions



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# PDRA Participatory Disaster Risk Assessment



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## 7 steps

- Describe hazards in community
- Hazard mapping
- Describe vulnerabilities and capacities of community
- Determine (calculate) disaster risks
- Rank disaster risks
- Decision on acceptable level of risks
- Decisions to : Prevent? Reduce? Transfer ?  
Mitigate? Live with ? Risks

# Participatory Vulnerability Analysis

## Action Aid



## PVA - Participatory Vulnerability Analysis

### 4 Steps

1. Analysis of vulnerable situation - e.g. indicators
2. Analysing the causes of vulnerability - key determinants
3. Analysing community action & capacity - resources and activities
4. Action from the analysis

# PVA = Participatory Vulnerability Analysis (Action Aid)

PVA uses a step-by-step approach to systematically analyse the causes of vulnerability:

- 1. Tracking hazards** to determine the level of exposure to risk, causes and effects.
2. Examining unsafe conditions (factors that make **people susceptible to risk** at a specific point in time).
3. Tracking systems and factors (**dynamic pressures**) that determine vulnerability, resilience and root causes.
4. **Analysing capacities** and their impact on reducing vulnerability.



# VCA Vulnerability and Capacity Assessment IFRC



The VCA process helps communities to:

- gather baseline information, crucial reference for emergency needs assessments following a disaster;
- better understand their environment, risks and hazards;
- increase awareness of their capacities to cope with risks and hazards;
- reach agreement with local authorities on actions needed to prevent or reduce the potential effects of a disaster;
- implement and evaluate projects in prevention, preparedness and risk reduction.

# Community mapping in VCA



**Map 1 Spatial map:** provides an overview of the main features of an area in relation to space.

**Map 2 Hazard/risk map:** identifies hazards and risks in the community.

**Map 3 Capacity/resources map:** shows local resources and capacities, as well as gender differences, or variable land use zones.

# VCA - Vulnerability and Capacity Assessment

## IFRC



### VCA as a diagnostic tool

- Helps to understand problems - symptoms & causes
- Systematically look at potential solutions & resources
- Focus on local conditions - locational specificity - threats risks vulnerable groups local perceptions, local resources, etc.
- Highlights different areas of responsibility - for finance, planning, implement, participation, etc. Who will do What
- solutions to local problems

### ▪ VCA as Planning Tool

- Helps to prioritise for long run and time sequence & time plan, responsibilities, ...
- Planning allows prep for monitoring
- adaptation to changing circumstances and (partial) solutions



## **SOCIAL**

### **VULNERABILITIES**

- Occupation of unsafe areas
- High-density occupation of sites and buildings
- Lack of mobility
- Low perceptions of risk
- Vulnerable occupations
- Vulnerable groups and individuals
- Corruption
- Lack of education
- Poverty
- Lack of vulnerability and capacity analysis
- Poor management and leadership
- Lack of disaster planning and preparedness

### **CAPACITIES**

- Social capital
- Coping mechanisms
- Adaptive strategies
- Memory of past disasters
- Good governance
- Ethical standards
- Local leadership
- Local non-governmental organisations
- Accountability
- Well-developed disaster plans and preparedness







## Physical

### **VULNERABILITIES**

- Buildings at risk
- Unsafe infrastructure
- Unsafe critical facilities
- Rapid urbanisation

### **CAPACITIES**

- Physical capital
- Resilient buildings and infrastructure that cope with and resist extreme hazard forces



## Economic

### **VULNERABILITIES**

- ❑ Mono-crop agriculture
- ❑ Non-diversified economy
- ❑ Subsistence economies
- ❑ Indebtedness
- ❑ Relief/welfare dependency

### **CAPACITIES**

- ❑ Economic capital
- ❑ Secure livelihoods
- ❑ Financial reserves
- ❑ Diversified agriculture and economy



## Environmental

### **VULNERABILITIES**

Deforestation

Pollution of ground, water and air

Destruction of natural storm barriers (e.g., mangroves)

Global climate change

### **CAPACITIES**

Natural environmental capital

Natural barriers to storm action (e.g., coral reefs)

Natural environmental recovery processes (e.g., forests recovering from fires)

Biodiversity

Responsible natural resource management

# ProVention



## ProVention

### Measuring Mitigation. Tools for Mainstreaming Disaster Risk Reduction

*Risk Assessment* - hazard mapping, forecasts, economic appraisal, social appraisal

ProVention (2006) Community Risk Assessment Methodologies and Case Studies. Compiled by Maya Schaefer. Geneva: ProVention.

<http://www.proventionconsortium.org>

M.K. McCall (2008) Participatory Mapping and Participatory GIS (PGIS) for CRA, Community DRR and Hazard Assessment. Geneva: ProVention, CRA Toolkit, Participation Resources. Website:

<http://www.proventionconsortium.org/?pageid=48#action>

Working with women at risk: practical guidelines for assessing local disaster risk. International Hurricane Research Centre, Florida Intrnat,