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Mainstreaming Land Tenure in Vulnerability Reduction

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Recovery from disaster

Organised by FIG NZIS

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Objectives

1. Propose a theoretical relationship between land tenure security and vulnerability;
2. Design and test a model for describing the linkage between land tenure and established vulnerability indicators, and response to disaster, using a case study of St. Vincent and the Grenadines;

Defining Vulnerability

The diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard. (IFRC, 2014)

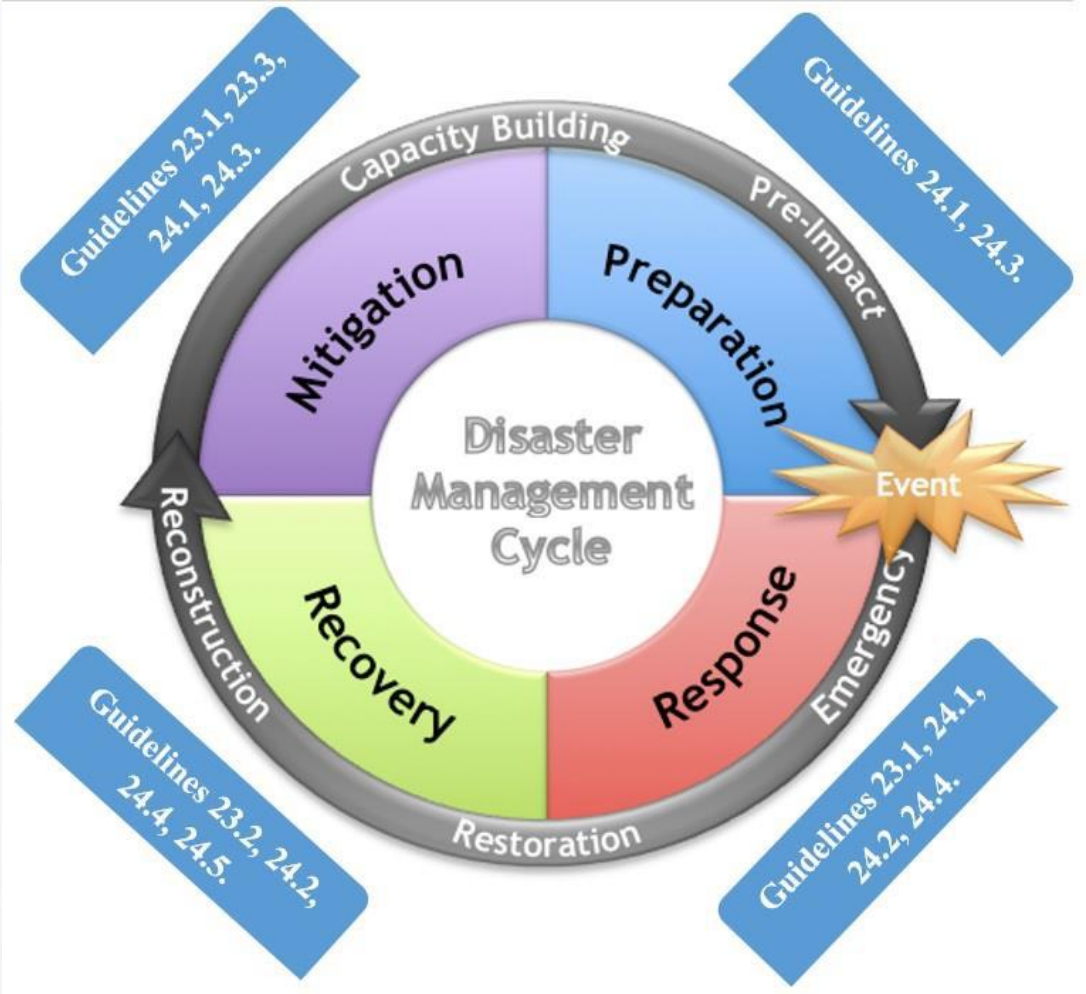
The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity. (IPCC, 2001)

Defining Vulnerability

The characteristics of a person or group in terms of their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard. It involves a combination of factors that determine the degree to which someone's life and livelihood are put at risk by a discrete and identifiable event in nature or in society. (Blaikie et al, 1994)

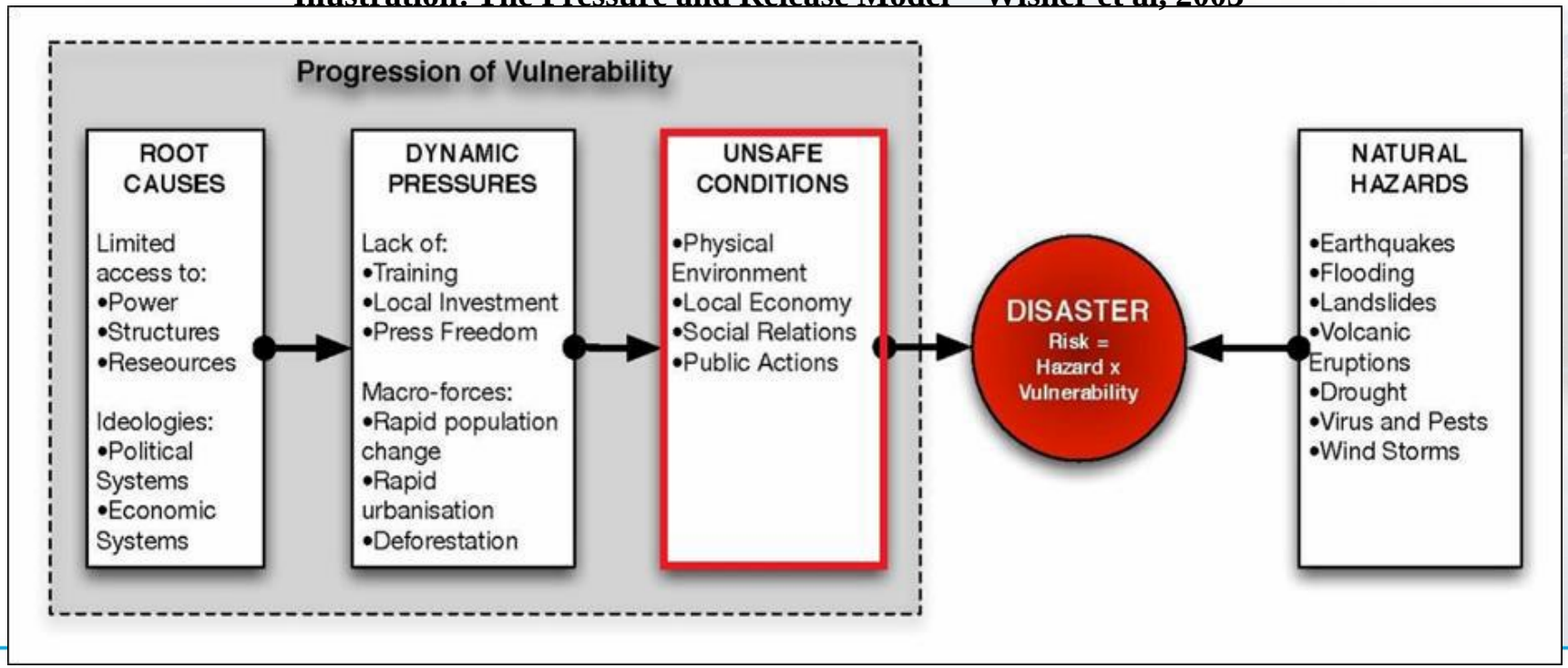
The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. (UNISDR, 2004)

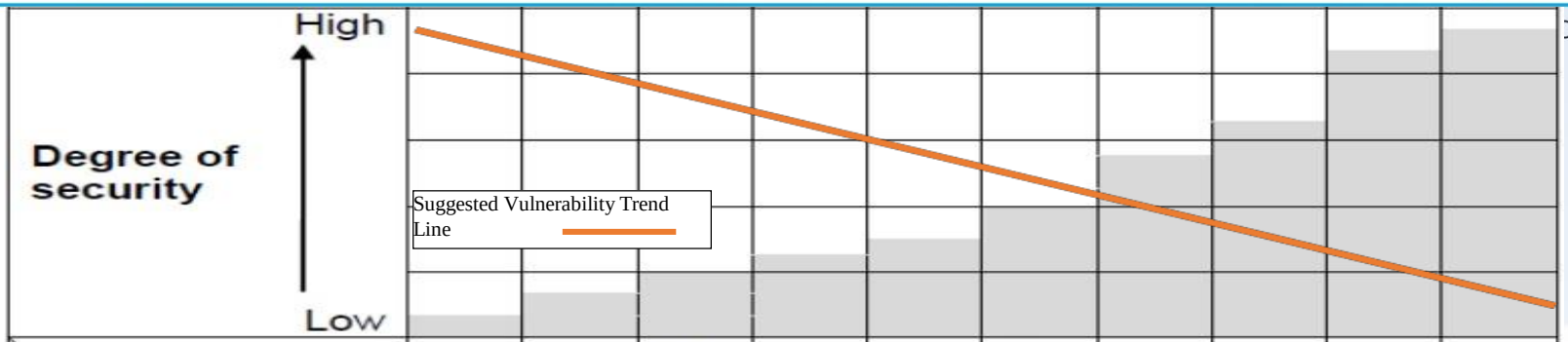
The VGGTs in disaster management



Conditions within a given community may vary on the basis of the existence or non-existence of certain physical, social, economic, or environmental factors of safety and security from the damaging effects of natural disaster impact. This variation should therefore be measureable, provided that appropriate indicators – within the four categories stated – can be identified

Illustration: The Pressure and Release Model – Wisner et al, 2003





Tenure category / Rights	Pavement dweller	Squatter tenant	Squatter `owner' – un-regularized	Tenant in unauthorised subdivision	Squatter `owner' – regularized	Owner - unauthorised subdivision	Legal owner - unauthorised construction	Tenant with contract	Lease-holder	Free-holder
Use										
Occupy										
Restrict others										
Buy/transfer/dispose										
Inherit										
Develop/improve										
Cultivate/produce										
Sublet										
Access services										
Access formal credit										

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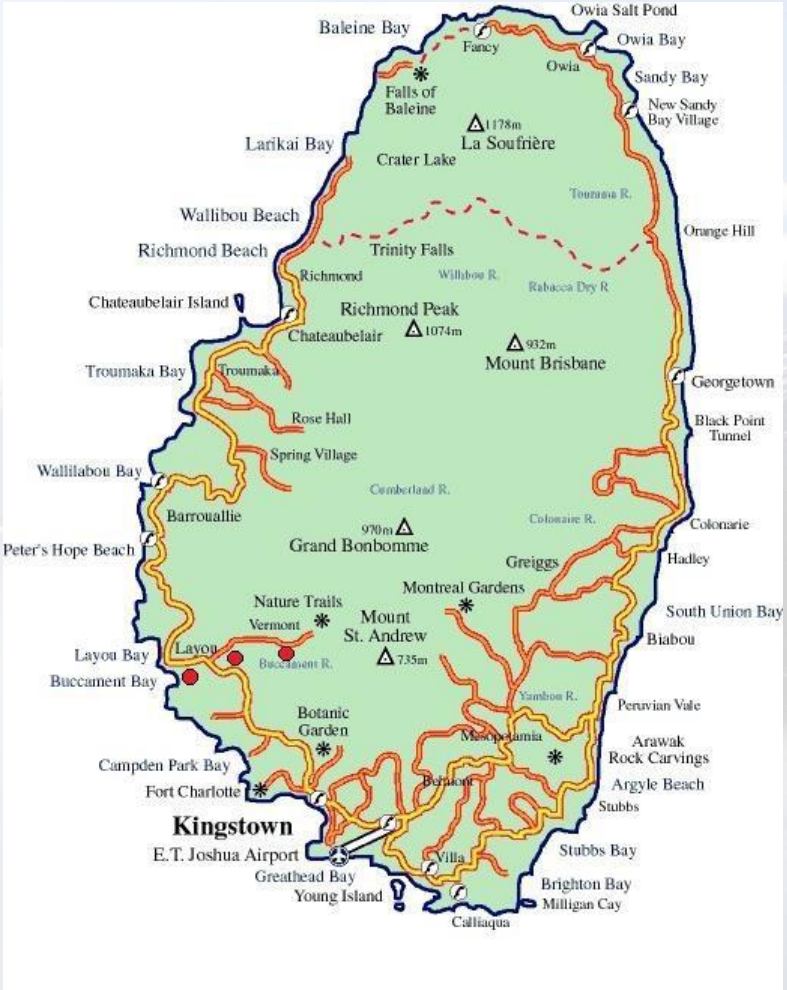
Study Area: St. Vincent and the Grenadines

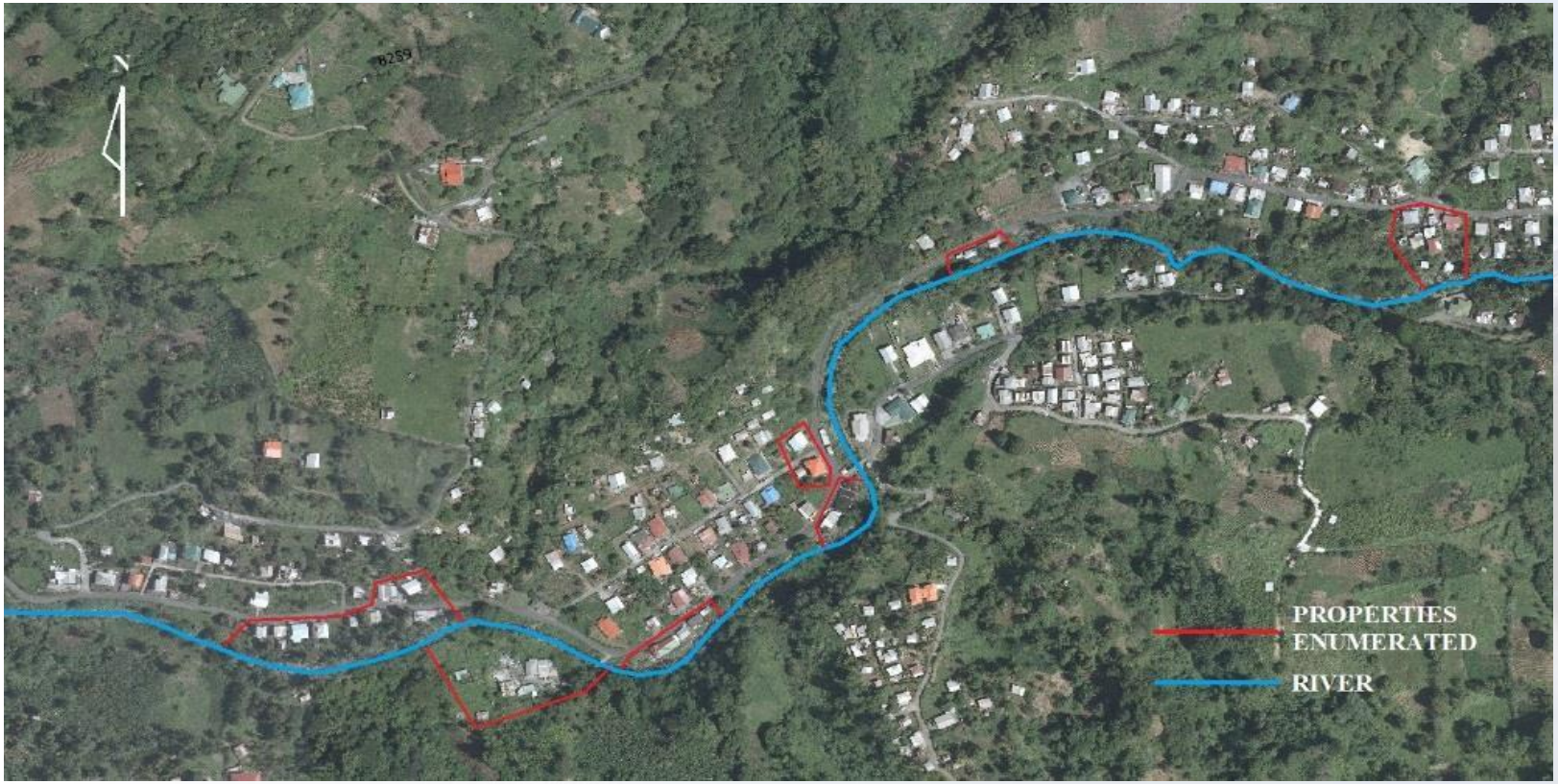
101 flood-affected households were assessed under four (4) categories:

- Physical Environment;
- Local Economy;
- Social Relations;
- and Public Actions.

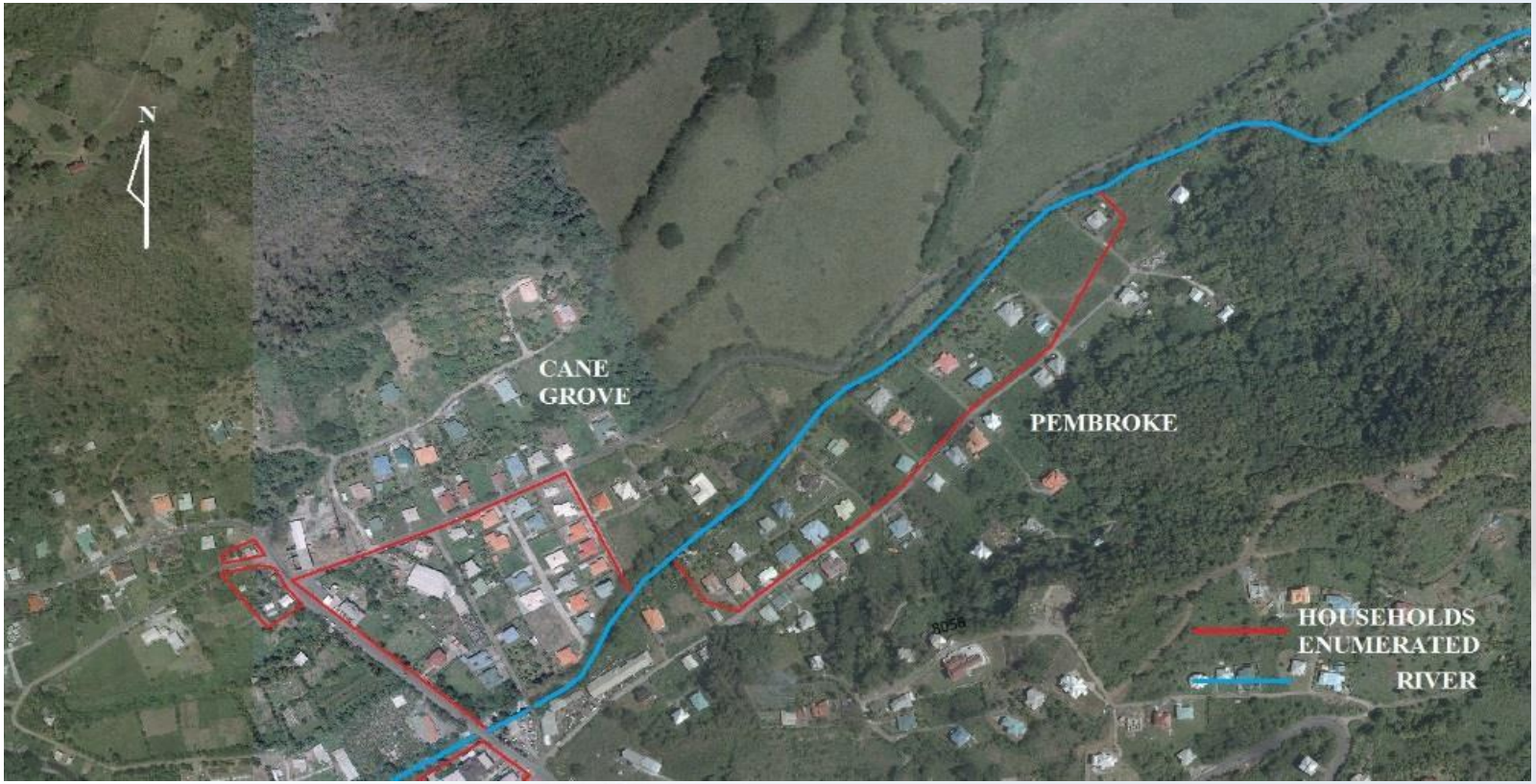
Relative vulnerability computed for each household using prototype Relative Hazard Vulnerability Framework (RHVF)



Study Area 1: Vermont



Study Areas 2 and 3: Cane Grove and Pembroke



Study Area 4: Buccament Bay

Indicators used for the RHVF :

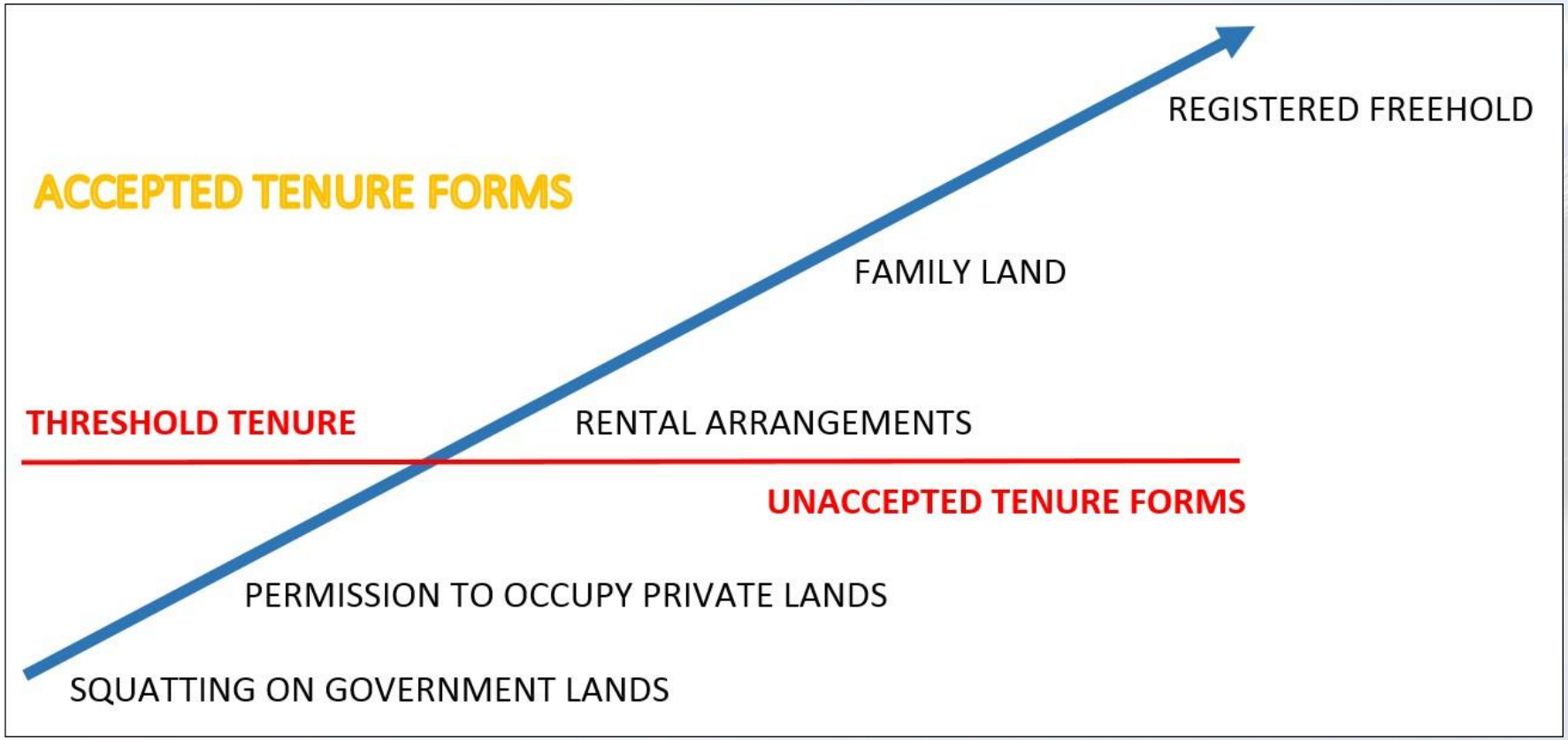
1. *Signs of mitigation;* Public Actions
2. *Employment status;* Local Economy
3. *Levels of income;* Local Economy
4. *Tenure status/ arrangement;* Social Relations
5. *Intended means of recovery.* Public Actions

simple assignment of a value (1 or -1) to a given household (for each indicator) on the basis of the existence of 'Favourable' or 'Unfavourable' indicator conditions.

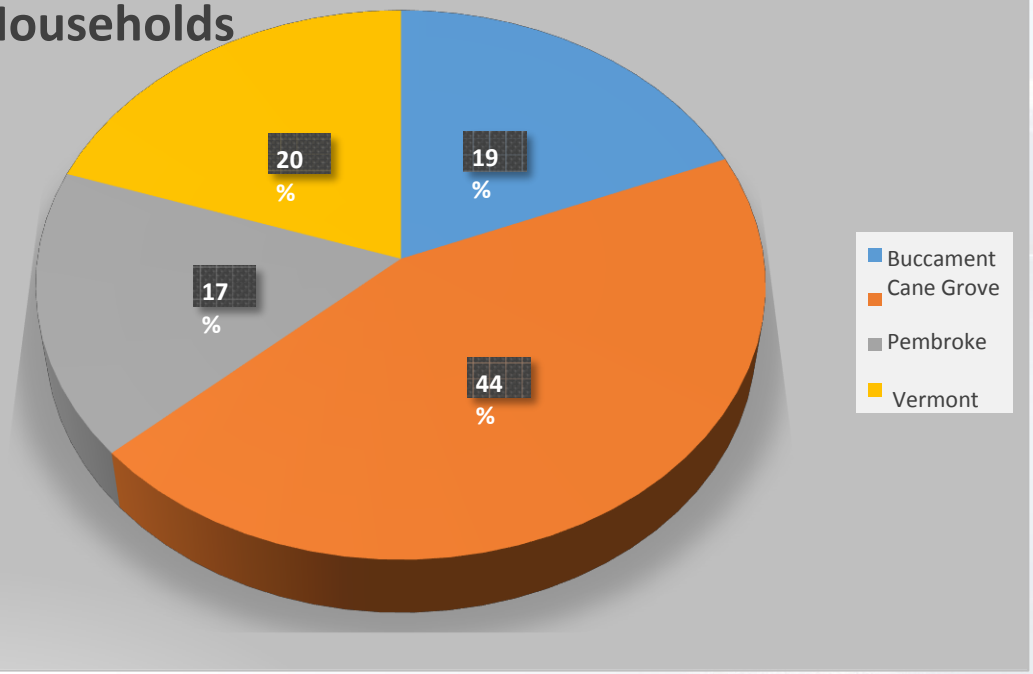
Tenure	Q1	Q2	Q3	Q4	Q5	∑(Q1,Q5)	RHVF # [10+∑(Q1,Q5)]
Freehold	-1	1	1	1	1	3	**13**
Rent	-1	-1	1	-1	-1	-3	**7**
Rent	-1	1	1	1	-1	1	**11**
Freehold	1	1	1	-1	1	3	**13**
Rent	-1	1	1	-1	-1	-1	**9**
Rent	-1	1	-1	-1	-1	-3	**7**
Freehold	**-1**	**1**	**-1**	**1**	**-1**	**-1**	**9**

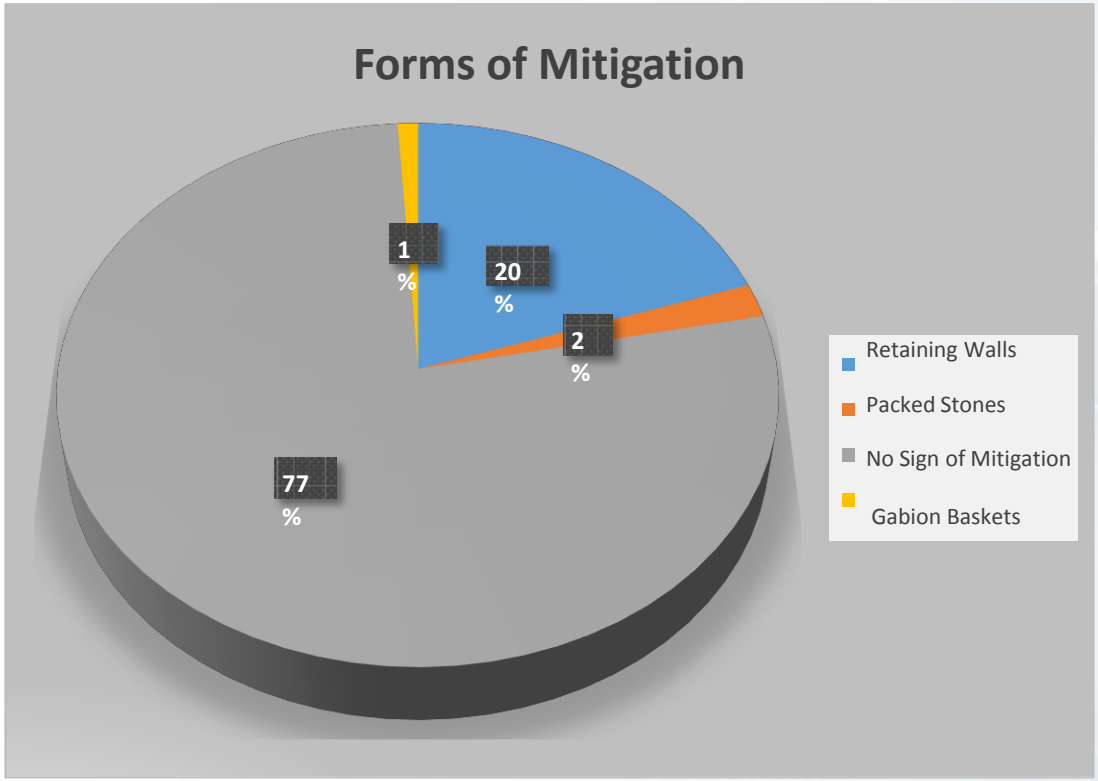
Table: Ranking the various tenure forms on the basis of their average RHVF Number

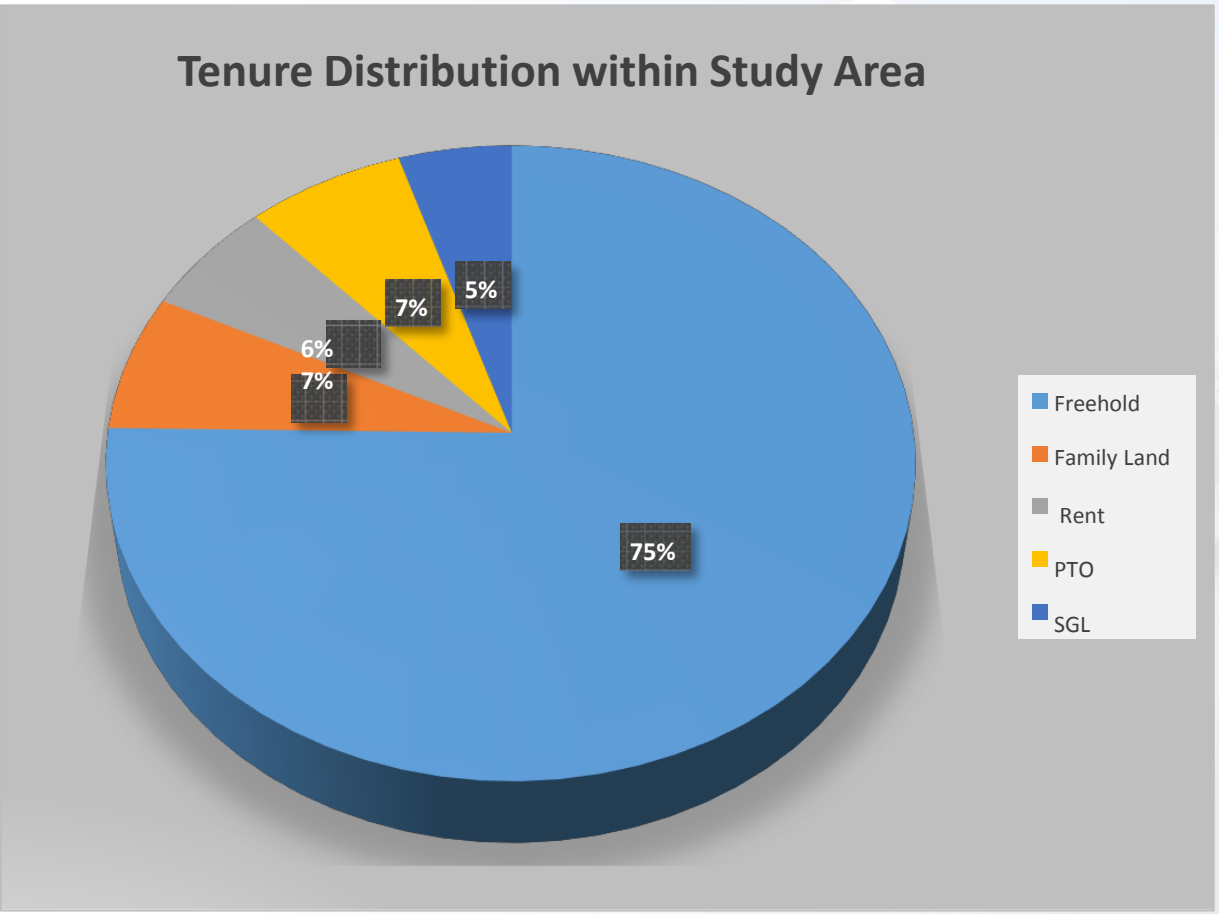
Tenure	∑(RHVF Numbers)	Number of Households	Average RHVF No.	Rank
Freehold	216	18	12	1
Family Land	58	6	9.7	2
Rent	43	5	8.6	3
Squatting on Government Land	39	5	7.8	4
Permission to Occupy (Private Lands)	31	5	6.2	5


REGISTERED FREEHOLD
ACCEPTED TENURE FORMS
FAMILY LAND
THRESHOLD TENURE
RENTAL ARRANGEMENTS
UNACCEPTED TENURE FORMS
PERMISSION TO OCCUPY PRIVATE LANDS
SQUATTING ON GOVERNMENT LANDS

Distribution of Enumerated Households




Forms of Mitigation
1 %
20 %
2 %
77 %
Retaining Walls
Packed Stones
No Sign of Mitigation
Gabion Baskets


Tenure Distribution within Study Area
75%
7%
6%
7%
5%
Freehold
Family Land
Rent
PTO
SGL

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Conclusion

The RHVF should be seen as a quick and easy means of indexing tenure forms on the basis of their associated relative vulnerabilities to natural hazards.

This is achievable by allowing tenure to be framed alongside a range of inter-related and prevailing factors affecting vulnerability.

Where land and property rights are recorded and recognised, there is a greater likelihood of personal investments towards recovery and reconstruction and in the installation of the requisite mitigation measures – thus reducing vulnerability.