SPPR SOCIAL POLICY AND POVERTY RESEARCH GROUP

Resilient Communities

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Resilience is a key part of achieving graduation status from LDC. Resilient communities can reduce poverty and achieve sustainable growth. However, we need to understand the meaning of resilience, especially in the Myanmar context, and better understand the links between rural development, nutrition, social protection and resilience. Faced with the effects of globalization, communities in today's world face numerous challenges: changing livelihoods in the face of global markets; work-related migration; the simultaneous emergence of new livelihood opportunities and the loss of existing livelihoods; the effects on livelihood of climate change and natural disasters. In the same way as other countries in the globe experience such challenges, based on their own context, so citizens in Myanmar also face this array of economic, social and climate-change related challenges. Additionally, changes in economy, livelihoods and migration patterns also has an effect on social norms and culture, religious or ethnic tension and conflict and the impact of an increasingly ageing society. In the context of multiple challenges, resilience is a very important concept in building and sustaining stable human existence, whether at household, village or regional level.

Resilience can be defined as "The ability of groups or communities to cope with external stresses and disturbances as a result of social, political, and environmental change" (Adger 2007). The definition of Resilience has three dimensions:

1- **Stability:** the ability to withstand shocks or disasters
2- **Responsiveness –** the ability to recover after sustaining losses from a shock or disaster
3- **Adaptive capacity –** the ability to learn and change behaviour following, or on considering a disaster or shock, increasing future ability to withstand and respond**.**

Resilience is characterized by actions which enable a person or system to cope with stress, to return to normality after the impact of stress, to adapt to be better able to cope with stress in the future, and to deal with the cause of the stress. This requires two things: Agency (willingness and capacity to act) and Opportunity (enabling environment in which to act). Resilience can be expressed with the following formula:

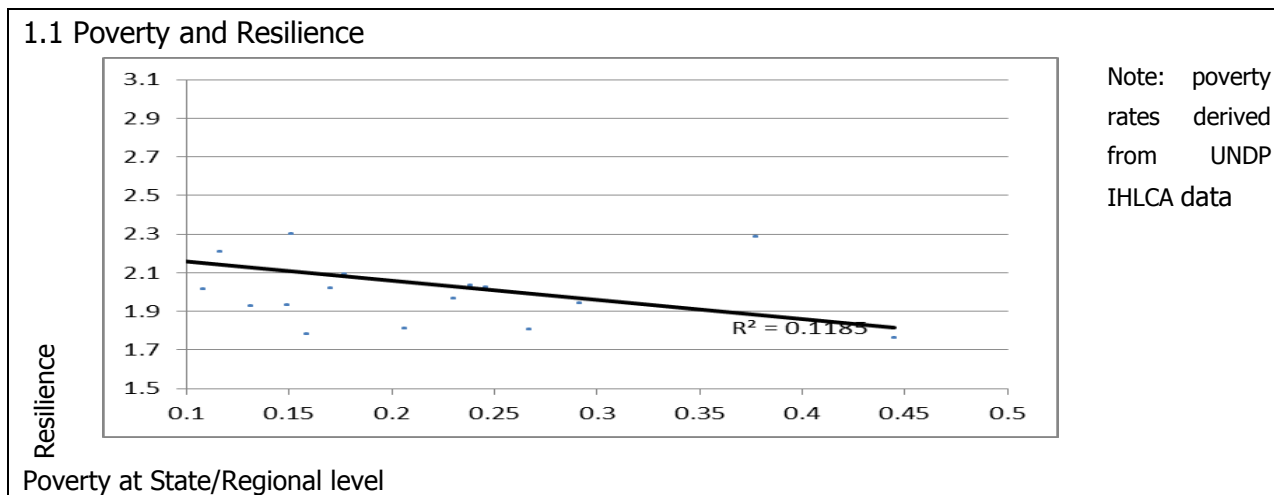*strengthening capacity x enabling environment = adaptation and empowerment = resilience*

Measuring resilience at household level requires identifying factors which are not themselves directly related to specific households capacities, and thus can be considered stochastic, or independent variables. This means identifying patterns of behaviour which we would normally associated with resilient households. This includes behaviour which contributes to the strengthening of the household economy (such as investing in livelihoods or savings-called investive behaviour) and behaviour which weakens the household economy (such as taking high interest loans for consumption-called erosive behaviour). By mapping the balance of these types of behaviour in a household, we can make an estimate of their resilience. Households with an overall score of zero or less are considered low-resilient households, and households with a score of one or above are considered resilient. The range of resilience can also be estimated. This paper analyzes data collected by the Department of Rural Development from over 30,000 households in all States Regions in Myanmar in 2015-16. Using this scale, we can firstly measure the proportions of households in each State/Region which have low resilience. Overall, 19.25% of households in Myanmar have a low level of resilience.

Percentage of Households with low Resilience at State/Regional level	
State/Region	% of households with low resilience
NPT	20.6%
Kachin	16.1%
Kayah	8.3%
Kayin	21.9%
Chin	20.3%
Sagaing	19.5%
Tanintharyi	23.9%
Bago	16.2%
Magwe	17.2%
Mandalay	18.3%
Mon	15.6%
Rakhine	21.3%
Yangon	23.7%
Shan (S)	18.7%
Shan (N)	22.1%
Shan (E)	17.7%
Ayearwaddy	20.1%
Union	19.3%

When assessing resilience in rural areas, we can measure resilience against factors at three different levels: at national or sub-national (state/region level), at community level and at household level.
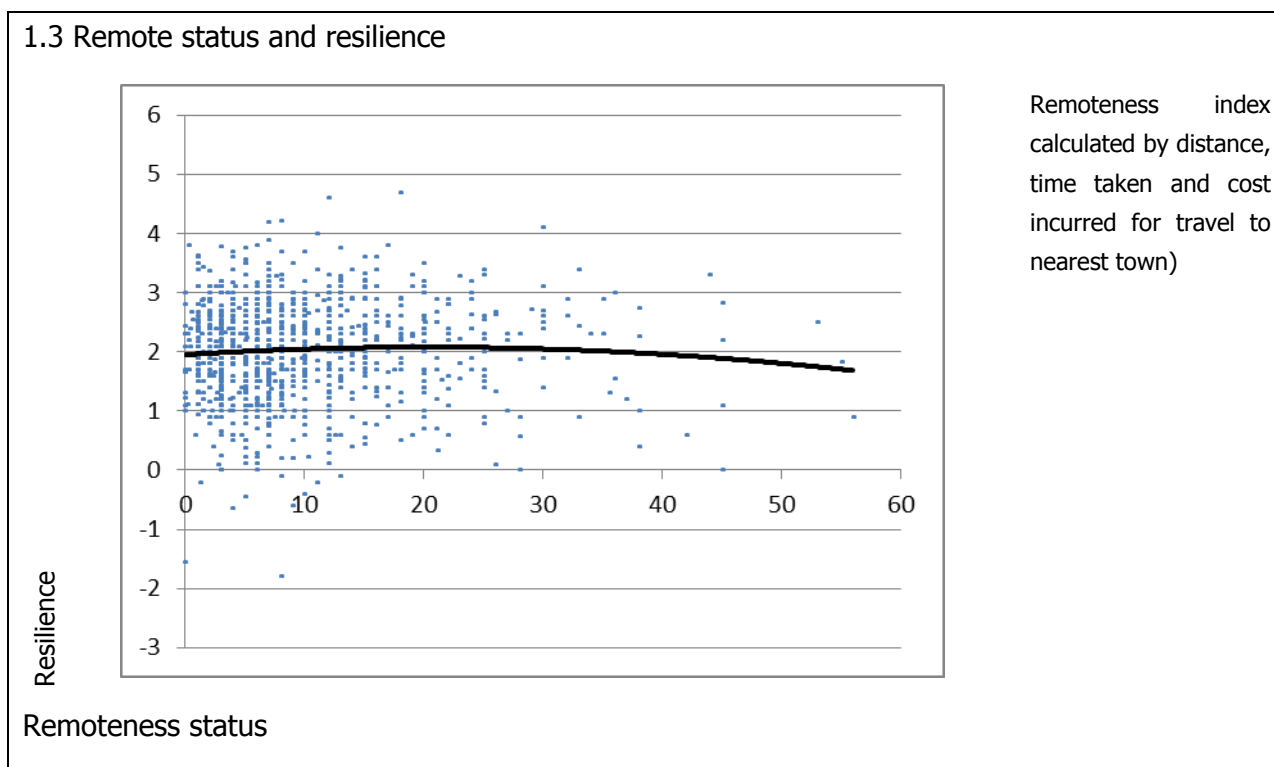
1. National/sub-national level

1.1 Poverty – there is a clear relationship between the poverty levels at State/region level and the average level of household resilience in that State and Region, with higher poverty levels associated with lower levels of resilience

1.1 Poverty and Resilience

Note: poverty rates derived from UNDP IHLCA data

Poverty at State/Regional level

(Y axis: Resilience)

$R^2 = 0.1185$

1.2 Inequalities- inequalities of income, assets and other socio-economic factors are strongly associated with lower levels of resilience, with States/Regions with higher levels of inequality (shown by rank) having lower levels of average household resilience.

1.2 Inequalities and resilience		
State/Region	Inequality rank (amongst States & Regions)	Average Resilience score
NPT	17	2.90
Kachin	2	2.02
Kayah	14	2.21
Kayin	3	1.93
Chin	1	1.93
Sagaing	11	2.31
Tanintharyi	10	1.78
Bago	10	2.02
Magwe	12	2.09
Mandalay	16	1.81
Mon	5	1.97
Rakhine	4	2.04
Yangon	6	2.03
Shan (S)	15	1.81
Shan (N)	13	1.94
Shan (E)	8	2.29
Ayearwaddy	8	1.76

1.3 Rural development – remote area status was generally associated with lower levels of resilience, but households in villages closest to towns also had lower levels of resilience, suggesting a link between peri-urban status and low levels of resilience.

1.3 Remote status and resilience

Remoteness index calculated by distance, time taken and cost incurred for travel to nearest town)

1.4 Access to public services - Overall, resilience levels are higher in villages with electricity (of any sort) but the availability of education or health services are not significantly associated with any changes in resilience.

1.5. Access to finance for livelihoods – overall, access to multiple sources of finance at village level is associated with higher levels of resilience. However, the effect is dependent on the provider and the terms of finance; for example, although government agricultural and co-operative loans were overall associated with increased resilience for all households, they are not associated with changes to resilience amongst poor households. However, the Mya Sein Yaung loan programme, whilst not associated overall with improvements in resilience, has a very positive association with increased levels of resilience amongst poor households.

1.5 Finance provision and resilience		
Finance Provider	Positive association with increased resilience for all households	Positive association with increased resilience for poor households
Private moneylender	-	-
Government agricultural loan	++	-
Mya Sein Yaung	-	+++
Co-operatives	+++	-
NGO	-	-

2. Community level

2.1 Governance – villages with a village development committee have overall higher average levels of resilience, with 18.6% of households in villages with a VDC classified as low-resilient compared with 20% in villages without a VDC. Stronger participation in village affairs in linked to higher degrees of resilience at household level.
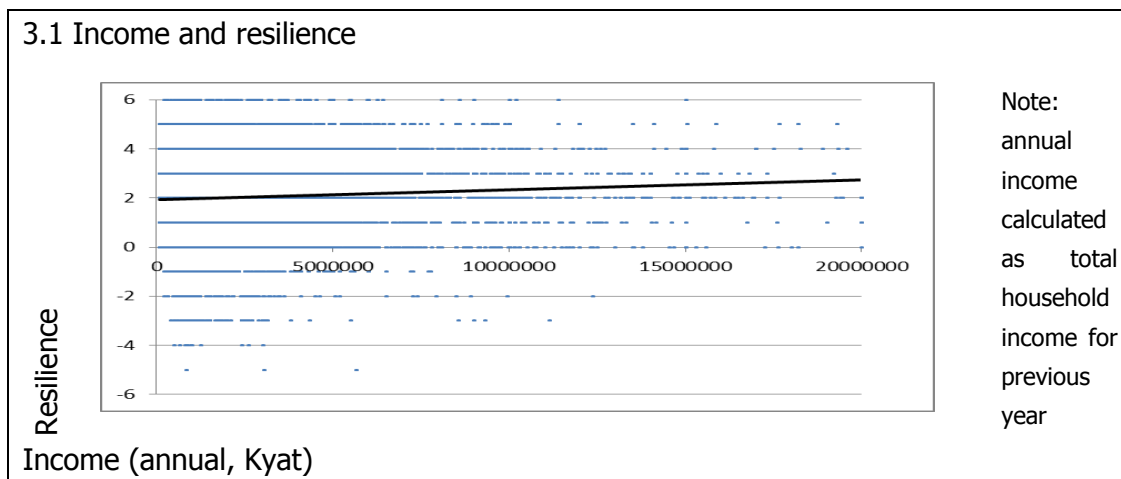

2.1 Participation in village meetings and resilience

Resilience

Participation in village meetings (proportion who actively participate)
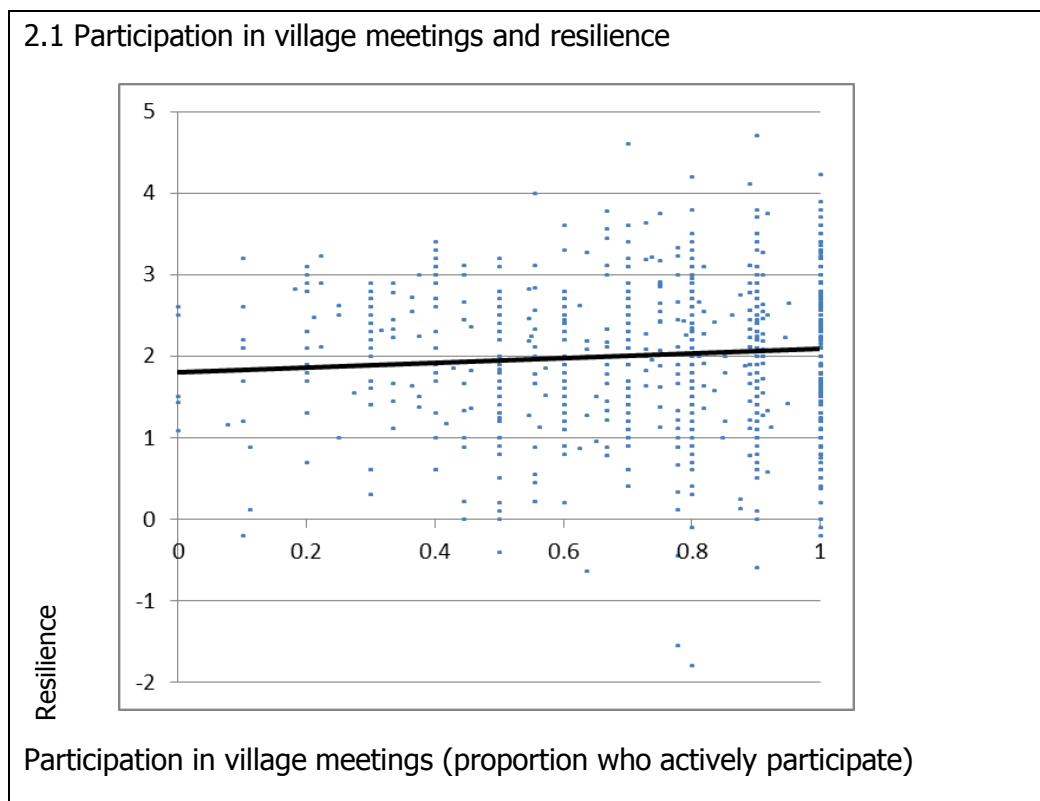
2.2 Basic infrastructure – there is very little correlation between basic infrastructure and resilience, apart from the presence of community water projects, which were associated with improved resilience amongst poor households.

2.3 Community social organizations – villages which had an active community social organization had higher overall levels of resilience, and lower proportions of households classified as low-resilient. In fact, amongst households in areas affected by flooding in 2015-2016, the single most significant variable in predicting higher levels of resilience was the presence of a community social organization.
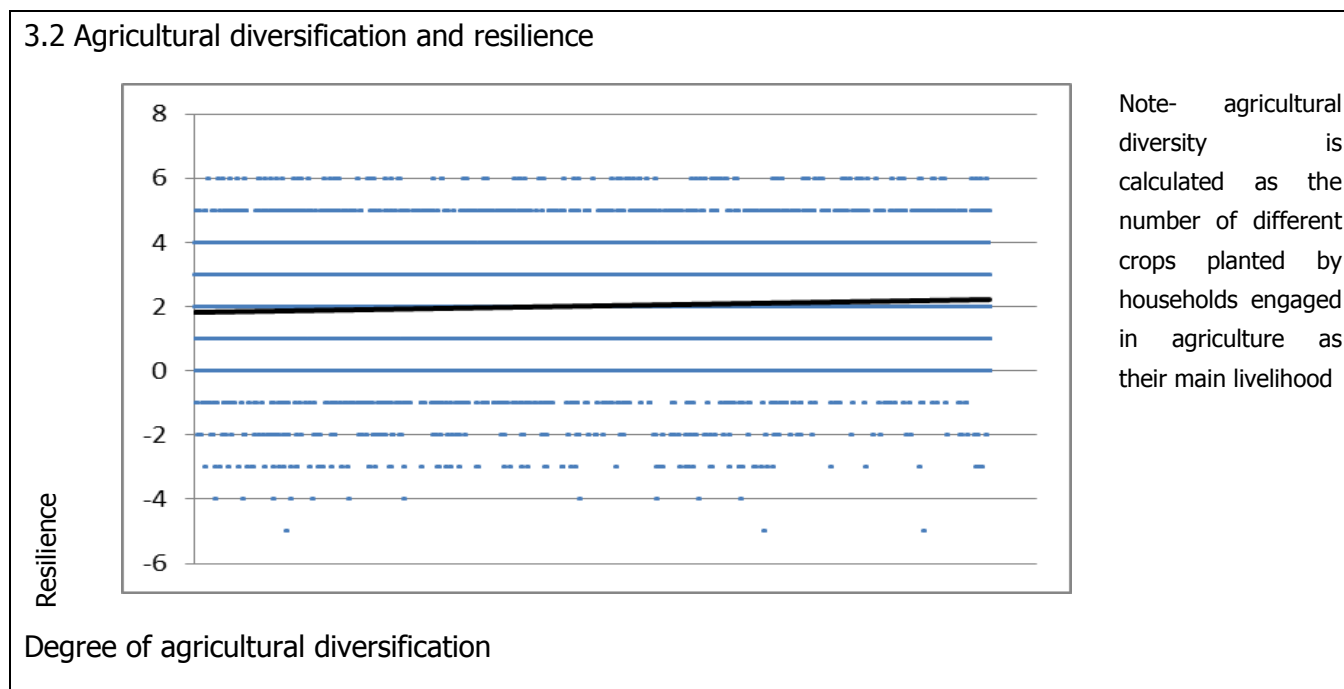
2.3 Community social organizations and resilience		
	Villages with social organization	Villages without social organization
Average household resilience	2.1	1.98
Percentage classified as low-resilience	18.5%	20%
Average resilience of poor households	1.91	1.81
Percentage of poor households classified as low-resilience	22%	24%

3. Household level

3.1 Income – overall, higher levels of income are associated with higher levels of resilience. However, the degree of impact of increased levels of income on resilience is highest in the 2 million to 4 million kyat range, where a difference of 80,000 kyat in annual income is associated with a one point change in resilience score.

3.1 Income and resilience

Note: annual income calculated as total household income for previous year

Income (annual, Kyat)

3.2 Livelihood diversity – there is no direct association between increased livelihood diversity and resilience; however, there is strong association between diversification within agriculture and increased resilience (see figure 3.2).

3.2 Agricultural diversification and resilience

Note- agricultural diversity is calculated as the number of different crops planted by households engaged in agriculture as their main livelihood
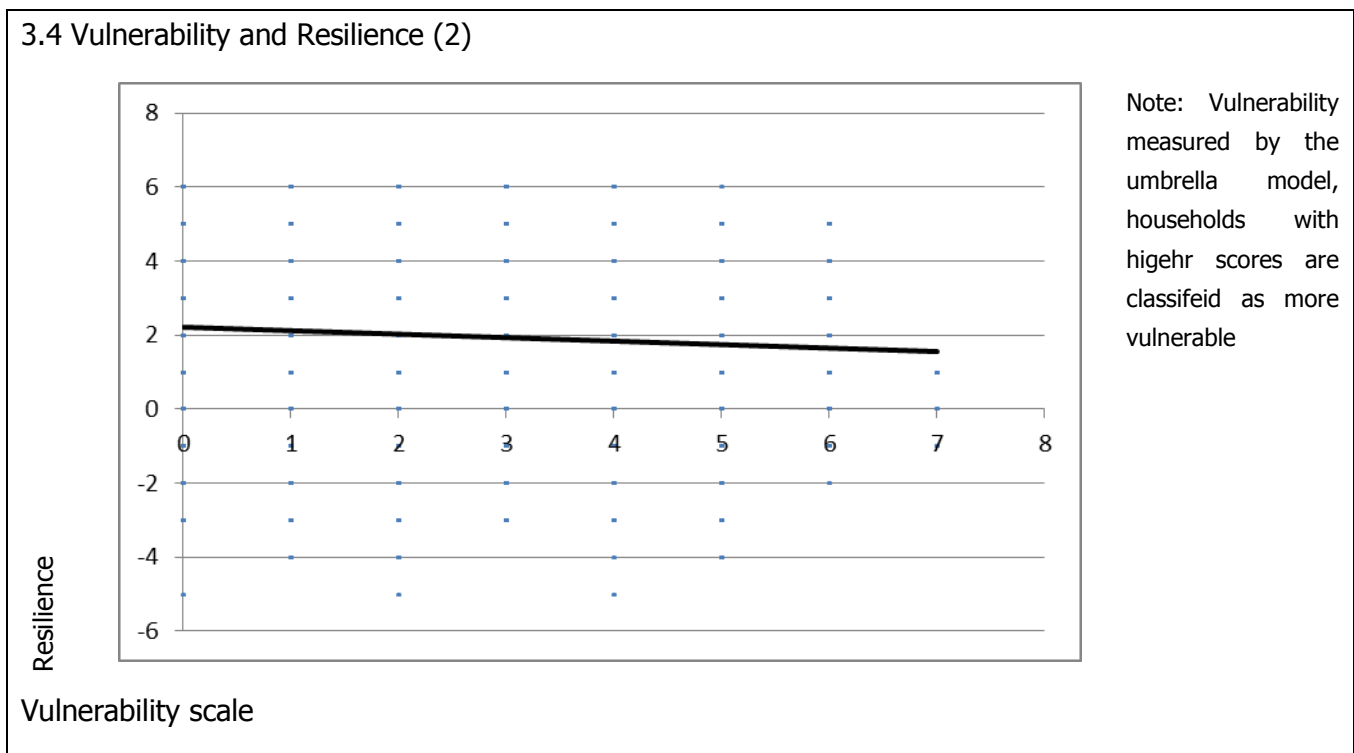
Degree of agricultural diversification

Also, there is a strong association between livelihood diversity and resilience amongst non-agricultural households, where more diversity is associated with higher resilience.

3.3 Vulnerability (1) – women headed households and households with persons with disabilities have lower levels of resilience, and are more likely to be classified as low-resilient than male-headed households and households without persons with disabilities.

3.3 Vulnerability and Resilience		
Household type	Average resilience score	Percentage classified as low-resilience
Male-headed	2.06	18.75%
Female-headed	1.86	23.2%
Without PwD	2.05	19%
With PwD	1.86	22.3%

Vulnerability (2) Using the umbrella model, households with a higher level of vulnerability have correspondingly lower levels of resilience, and 22.6% households with an overall 'vulnerable' classification are also classified as 'low-resilient' compared with 18% of households which are not considered vulnerable.

3.4 Vulnerability and Resilience (2)

Note: Vulnerability measured by the umbrella model, households with higehr scores are classifeid as more vulnerable

Vulnerability scale

3.5 Food security – food insecurity is strongly associated with low levels of resilience, but the nature of the association is unclear: does food insecurity result in low resilience, or is low resilience a pre-condition for food insecurity? Either way, the relationship is strong, and probably co-existent.

3.5 Food insecurity and resilience		
	Households without food insecurity issues	Households which have experienced food insecurity in previous 12 months
Average household resilience	2.05	1.49
Percentage classified as low-resilience	16%	30%

Key findings and recommendations to increase resilience:

1. Inequalities need to be addressed through the implementation of pro-poor development policies.

2. Appropriate financial instruments should be made available to assist poor households to develop their own livelihoods.

3. Community social organizations capable of delivering effective social protection should be stablished in each community

4. Interventions to increase income (e.g. livelihood enhancements or social security) should be undertaken in ways targeted to the existing income level, increasing the effectiveness of the intervention.

5. Specific measures should be taken to increase the resilience of vulnerable households, including women-headed households and households with persons with disabilities.

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