

Mountain livelihood systems – building resilience by diversifying economies

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Outline

- Characteristics of mountain environments and populations
- The Sustainable Livelihood Framework
- Mountain livelihood systems + strategies



Module 1

Characteristics of mountain environments and populations



Mountains cover 22 % of the earth's land surface



Mountains are home to 13% of the world's population







Intact mountain ecosystems provide a variety of goods and services both at the global and local level:

- Fresh water
- Biodiversity
- Forest products
- Energy
- Recreation and tourism













But mountain ecosystems are also fragile and vulnerable
to climate change
to natural disasters and extreme weather events
to man-made degradation

























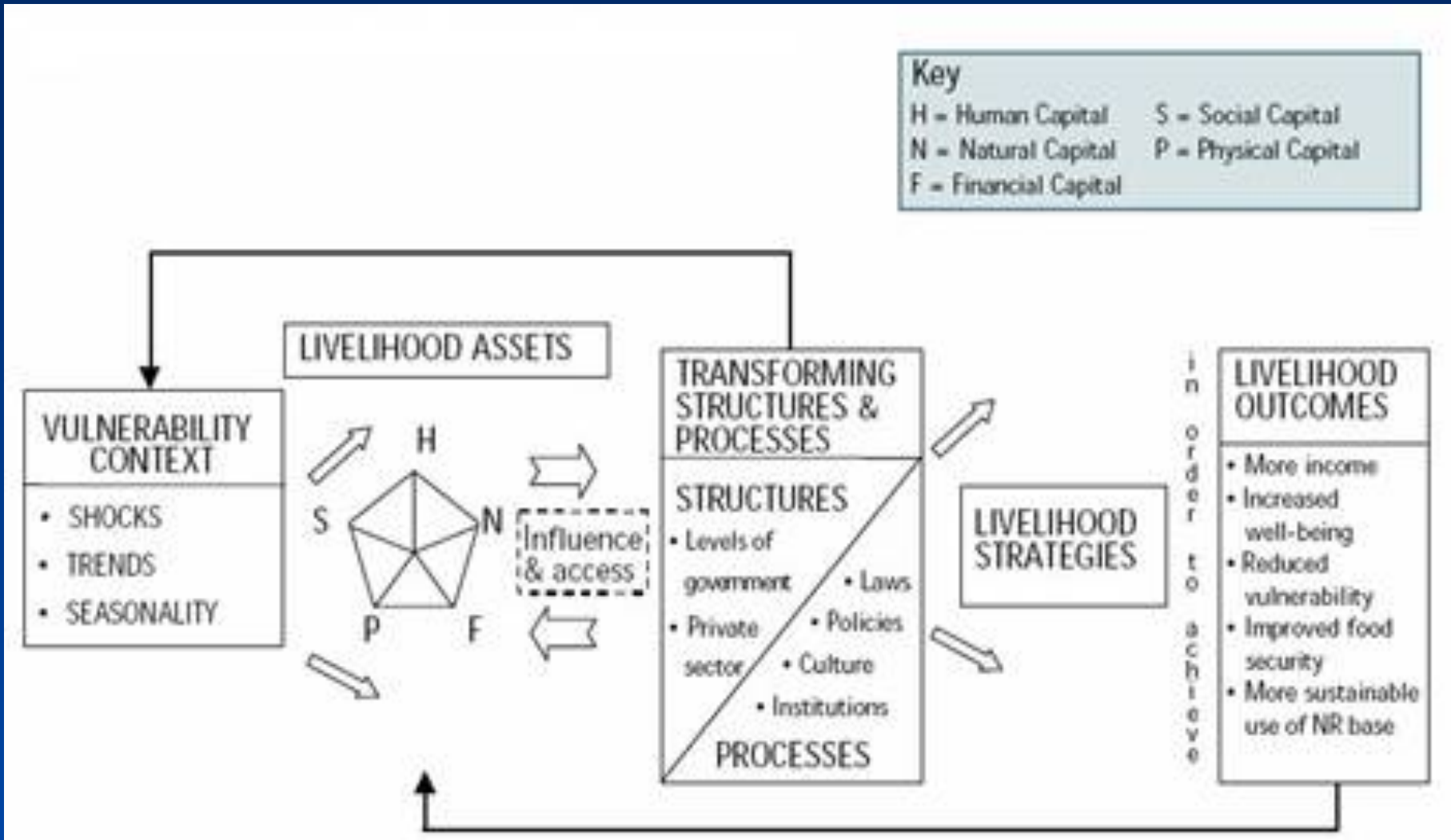


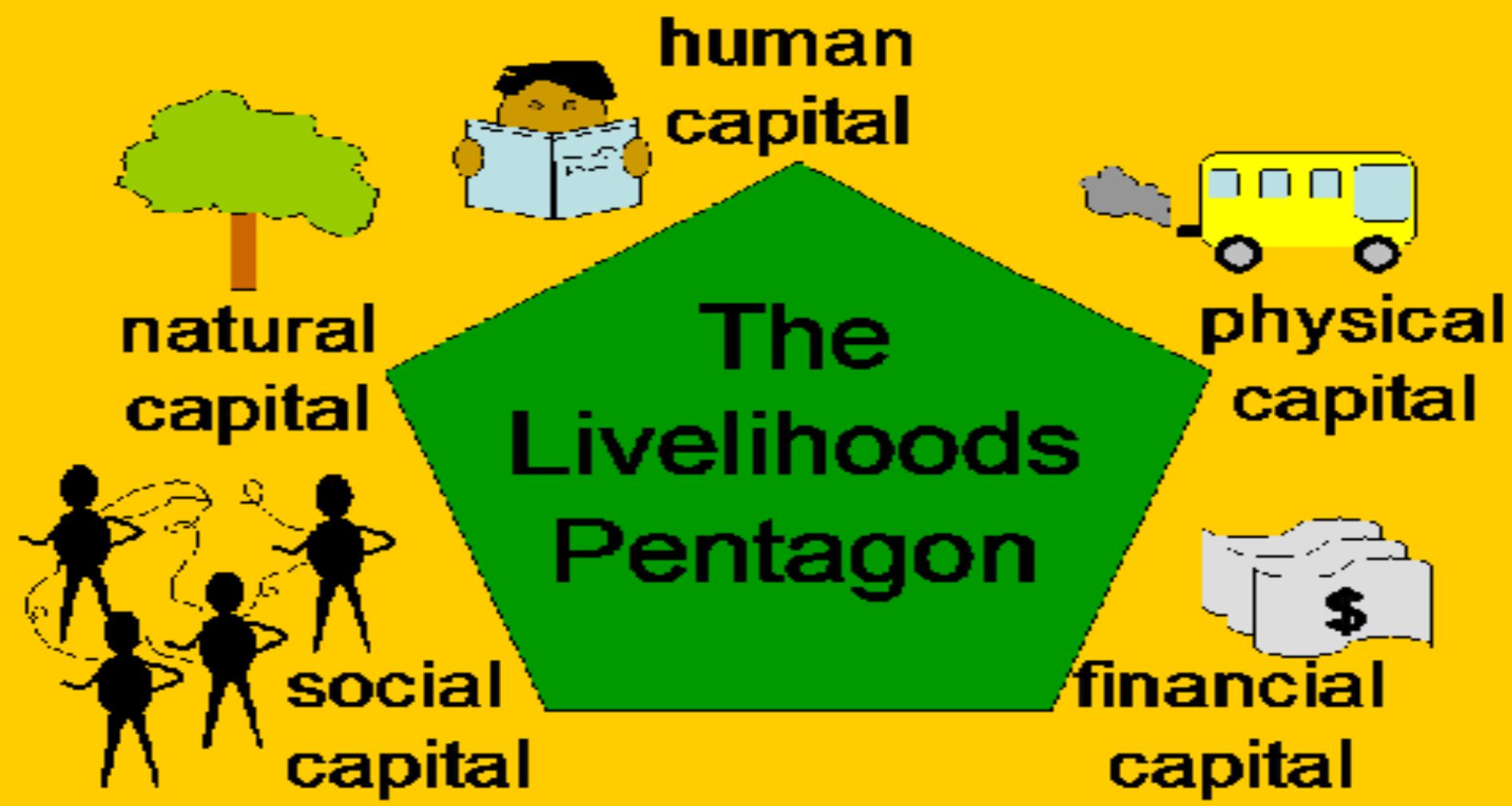
Module 2

The Sustainable Livelihood Framework



The Sustainable Livelihood Framework







Module 3

Mountain Livelihoods Systems and Strategies



Assumption:

Diversification of mountain livelihoods is not a new concept but a proven and well-established survival practice of mountain people to adapt to specific mountain characteristics: fragility, marginality, limited accessibility, diversity and niche opportunities



Land cover in mountain areas

(in developing and transition countries)

7 % is crop land

25 % is closed forest

25 % is grazing land (grassland, shrubs, open forest)

10 % is protected area

33 % is barren land (sparsely vegetated land, semi-desert, desert, tundra, snow and ice)



Subsistence agriculture and natural resource use remain the core of most mountain people's livelihoods, despite difficult conditions and low productivity in mountains:

- Harsh climate → limited growth period for crops
- Steep slopes, often shallow soils → limited availability of arable land, land fragmentation
- Remote locations → poor access to services, markets and infrastructures
- Labour-intensive and high work load





Farming systems in mountains are complex and diversified, using different resources – cropland, pastures and forests – at different altitudes and at different times of the year



Integrated and diversified land use system

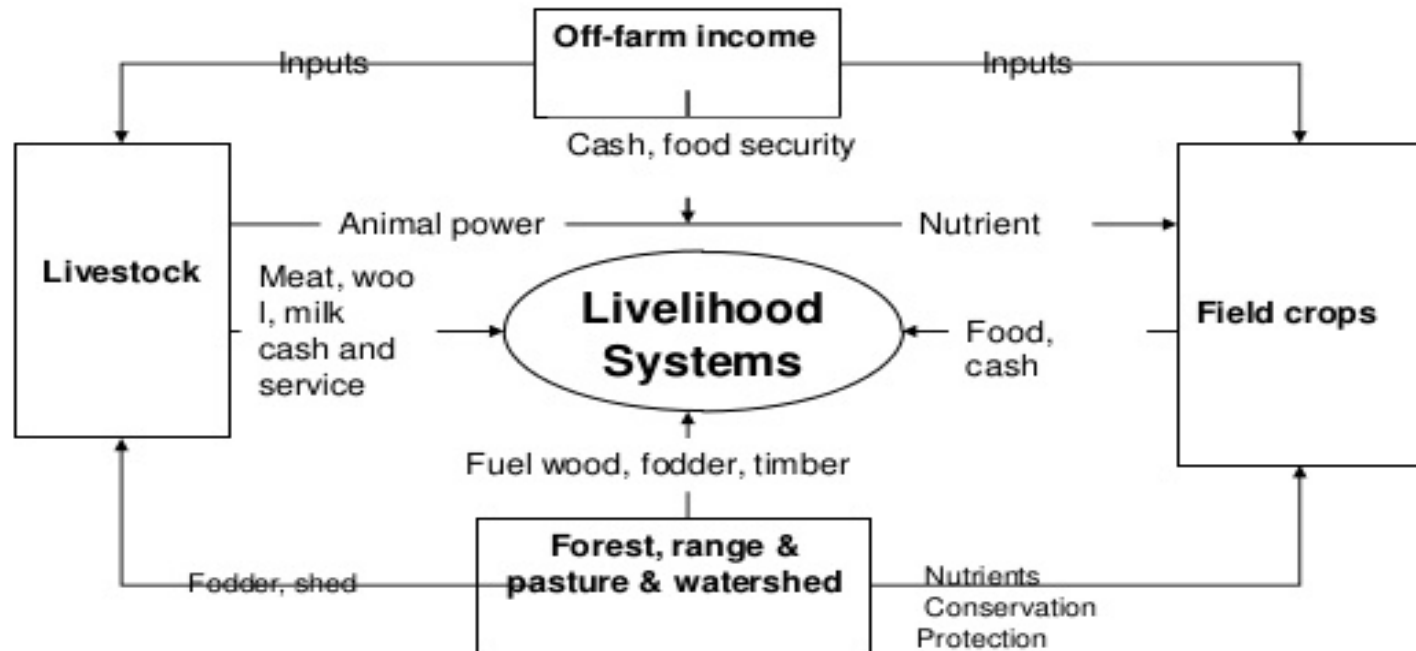


Mountain Livelihoods is Complex & Diverse

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THREE DECADES
FOR MOUNTAINS AND PEOPLE



Interdependencies and inter-linkages of Livelihood systems and water

Crop production I



Crop production II



Crop production III



Crop production IV

High value and high quality mountain “niche” products that

- have comparative advantages;
- have a market demand;
- build on traditional know-how and interest among communities to engage in small enterprise development







Forest management



Livestock production and pasture management



Small-scale fisheries



Off-farm income sources

Handicraft and other non-farm self-employment
(small-scale business or trade)

Non-agricultural wage income

Tourism

Remittances

Pensions





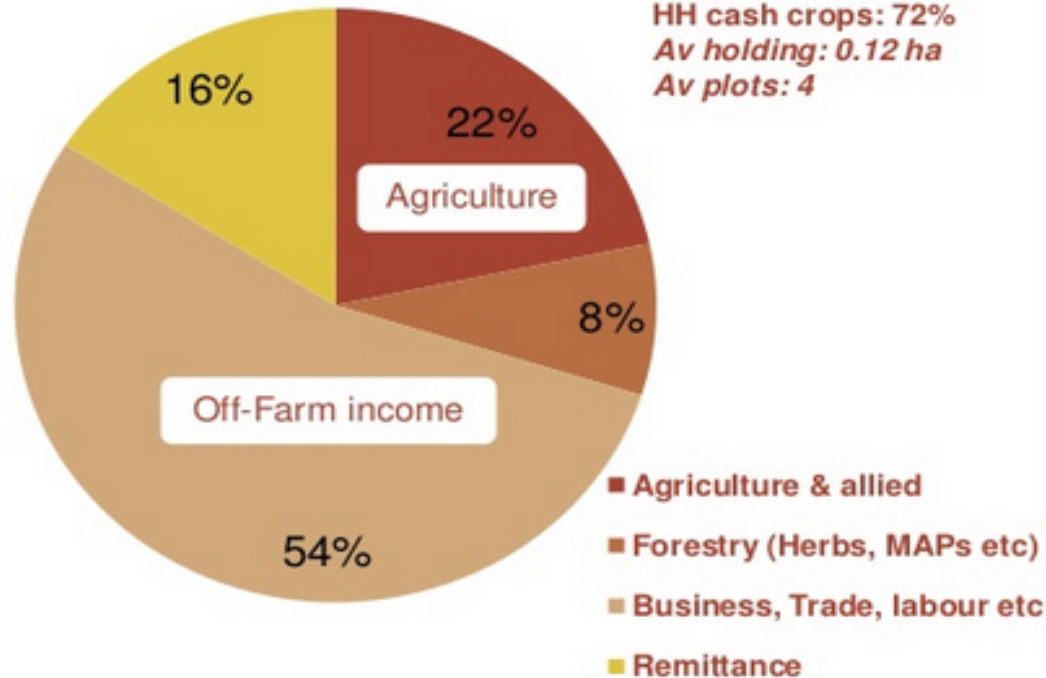
Household Income Sources

(Source: Poverty Assessment - PVAT, AdaptHimal)

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% contribution to HH Income



HH having access: 91%
Landownership: 82%
HH cash crops: 72%
Av holding: 0.12 ha
Av plots: 4

- Land based activities contribution to HH income only 22%
- 54% HH income from off farm; of this, 53% is contributed through wage labour.
- Opportunity? increase returns from land based and enhance off farm options

Example from Afghanistan

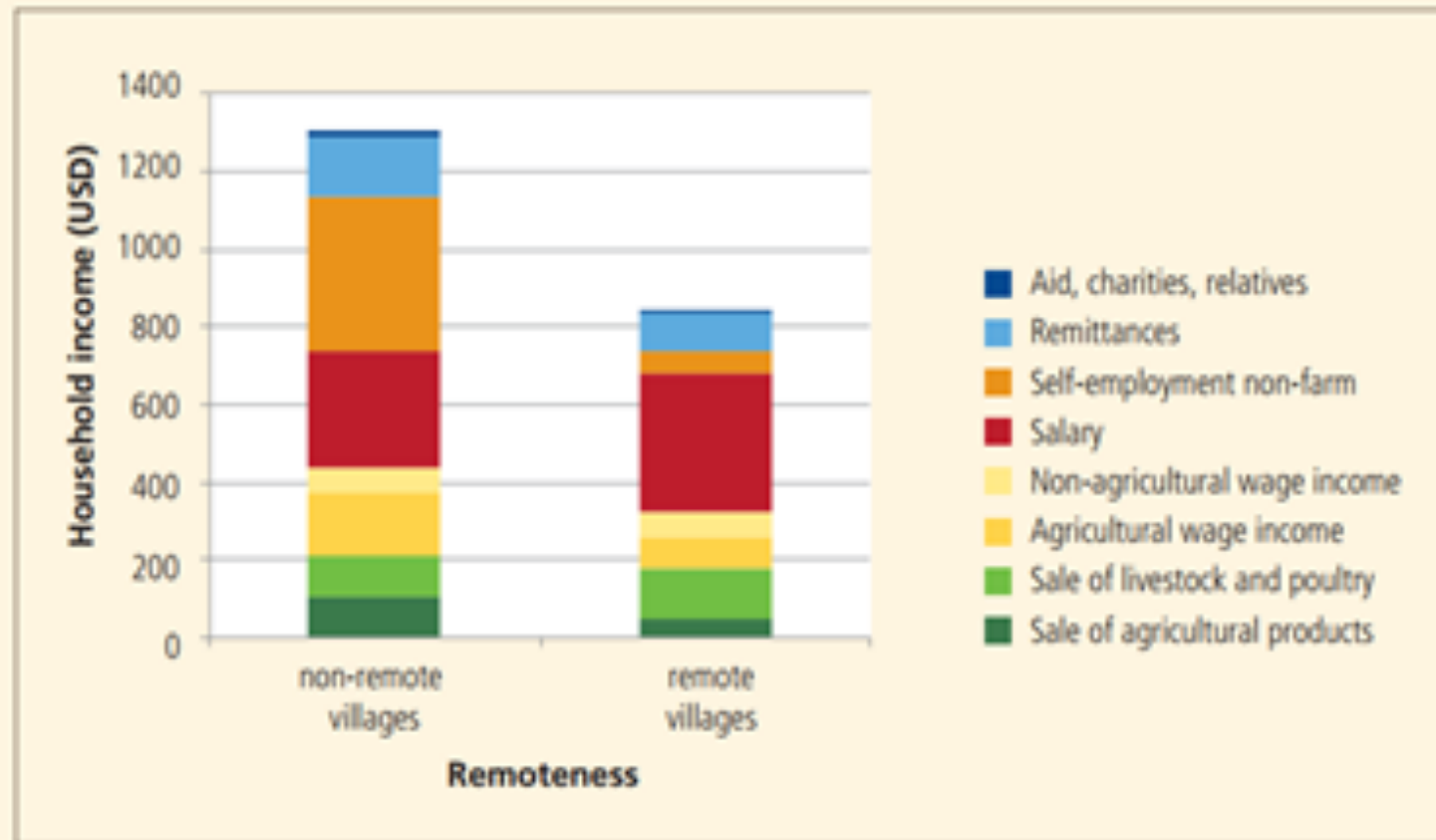


Figure 1: Average annual household incomes (medians) by source of income and remoteness, Badakshan, Afghanistan. Source: (2)

(N = 490 households in 22 non-remote villages, 614 households in 26 remote villages)

Example from Lao PDR

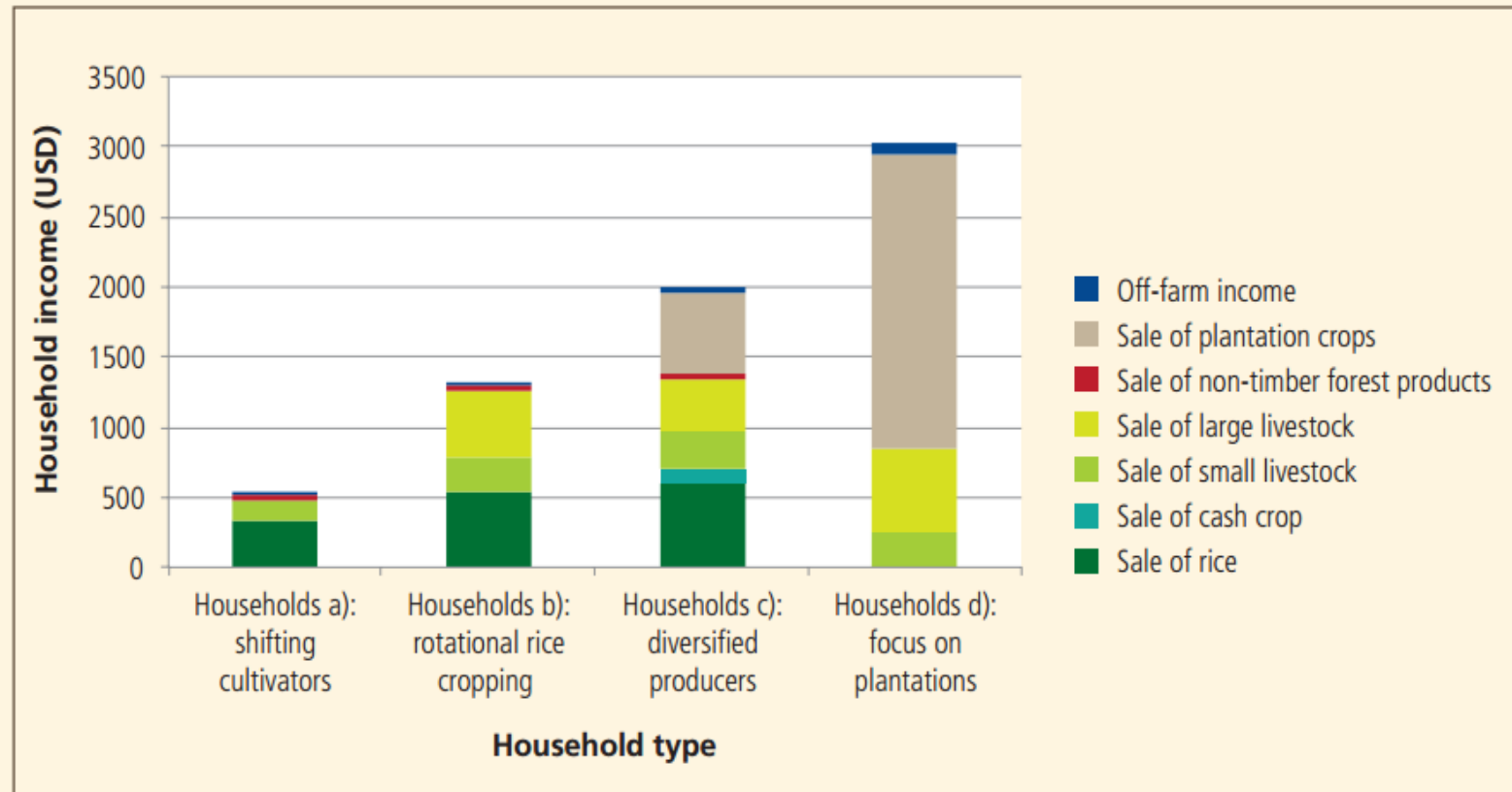


Figure 3: Average annual household incomes by source of income and household type, Viengkhang, Lao PDR. Source: (5)

(N = 504 households in 7 villages)

Conclusions I

Diversification of activities and potential income sources is a viable strategy to increase resilience. It needs:

- An enabling specific policy framework that strives to overcome the marginalization of mountain regions and that assists mountain people in their efforts to adapt to ongoing changes;
- Recognition, value and compensation mechanisms for ecosystem services preserved by mountain communities that would contribute to the economic development of mountain regions;
- Public investment in education, health and transport infrastructure and access to credit for mountain people in support of their market integration;

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Conclusions II

- Investments in capacity development to upscale sustainable land management practices and to ban inappropriate techniques that aggravate degradation of crop, forest and range lands in mountains, building on existing traditional knowledge;
- Empowerment of mountain communities to get a stronger voice in decision-making and to become the real custodians of the natural resource base in their mountain environment;
- Interventions that are targeted to the specific local context, based on a thorough assessment of existing vulnerabilities, opportunities and constraints, and applying an integrated approach to development, e.g. through watershed management.



Thank you for your attention !

