Recent policy and strategic vision documents embrace holistic views on transforming the livelihoods of poor upland villagers. Thus, while policies seek more allocation of household resources to commercial enterprise, there are also concerns about basic food security and the need to build incrementally on what already exists. Livelihoods are currently centred on the basic resource of household labour, which includes human knowledge, skills and health.

Household livelihood strategies affect how resources are allocated among available opportunities, which can be land-based or non-land-based, based within the ‘subsistence core’, based in activities centred on commercial production (if available), or based in enterprises managed at household, group, or community levels.
Traditional Livelihoods

Descriptions of traditional ‘farming systems’ found in policies and studies recognise that resources are allocated across a mix of opportunities, and usually result in a combination of agricultural and forest products. Indeed, shifting cultivation uses forest regeneration to maintain productivity, resulting in much ambiguity about whether products from fallow fields are agricultural or forest in nature.

Farming systems form the core subsistence activities. Major options include:

- Upland fields.
- Paddy fields (if available).
- Various types of homegarden.
- Small and large livestock.
- Hunting and fishing.
- NTFPs.

Households allocate their resources (labour and knowledge, land, inputs) among these options, depending on access, productivity and risk, as well as on their perceived needs, preferences, and opportunity costs. System outputs can meet immediate subsistence needs or go into reserves, and any surplus can be traded or sold (if possible) to help meet subsistence, savings or capital investment needs.

As households, lineages and communities engage in various component enterprises over the years and through generations, they build a knowledge base about the land, crops, wild plants and animals within their management and production domain. This continually evolving familiarity with how plants and animals prosper or suffer under the range of conditions found in local domains is an important part of agroecosystem management practices, and a major resource for further transformation. A few examples are instructive:

- Upland people depend on forests for subsistence and income generation. Benefits from forests include food, wood, fuel, NTFPs, land for crops, shifting cultivation, tree planting or regeneration, and livestock feed and fencing. Associated (often extensive) knowledge of wild species found in local fallows, forests, and waters, and how they can be used for human benefit, complements knowledge of cultivated species, providing a basis for the domestication processes that help livelihoods adapt as conditions and needs fluctuate.
since paddy sites are very limited, upland fields (hai) are often the main source of rice, along with other products. The degree to which a household can or cannot meet its subsistence rice needs is considered a main indicator of poverty. However, since upland rice cannot be grown in a field continuously without yield decline, traditional technologies use forest regeneration to maintain productivity without chemicals. The many types of upland rice systems are viewed simply as ‘shifting cultivation’, and thus targeted for ‘stabilisation’. The NAFRI socio-economics unit is studying the disruption of this policy on rice self-sufficiency.

- **Livestock** provide food or draught power as well as a growing store of wealth that can be mobilised for cash, trade, dowries and so on. Since feed is usually from crop residues, scraps, and/or wild or volunteer plants, livestock cross household-community land and domesticated-wildland boundaries according to needs, seasons or opportunities. Common barriers to livestock production are obtaining initial stock and reliable feed sources, while risks are disease, weather and theft.

- **Homegardens** are a rich and often underestimated repository of germplasm, knowledge and familiarity. Homegardens have a variety of forms and locations that can vary by season and other conditions, and are frequently diverse mixes of exotic and domesticated species that meet nutritional, herbal, medicinal and even aesthetic or spiritual needs; they are also an ‘incubator’ for observing and evaluating newly acquired species. Thus, they are a pool of plants, knowledge and experience from which larger specialised commercial plantings can be built if and when reliable marketing opportunities emerge.

The overall mix of a household enterprise portfolio reflects current livelihood strategies. Whenever there is a disturbance or stress (or new opportunity) that affects one component, the overall system seeks to compensate, adapt, or cope by readjusting allocations among the components. Since disturbances by weather, disease and war have happened many times in the past, mechanisms have been developed to make it through hard times: wild or domesticated ‘famine crops’, and social or kinship networks for emergency assistance are two examples.
Diagram 1. Rural Poverty Eradication - Strategic Approach

**Labour & Knowledge**
- person
- household
- community

**Land**
- location
- type
- condition
- water

**Inputs**
- germplasm
- tools
- productivity
- capital

**Household Core Subsistence Enterprise Major Options**

- Non-Timber Forest Products
  - Zoning
  - Hunting / Fishing
  - Large Livestock
  - Small Livestock
  - Homegardens
  - Paddy Field
  - Upland Fields
    - Forest fallows
      - Crop rotations
      - Tree - crop interplanting
      - Tree plantations
      - Agroforest

- Subsistence Products
- Marketable or Tradeable Surplus

- Subsistence Needs / Trade - Sales
  - Capital Investment / Reserves - Savings
Most government policies seek to induce transformation of household portfolios by constraining some components (especially \textit{hai} cultivation), and opening new opportunities for others (especially road access and government services). This results in major sustained changes in the operating environment, and can challenge the capacity of households and communities to make major adjustments in short periods of time. One study even proposed that such sustained pressures for rapid change be viewed as an ‘ongoing disaster’ for livelihood systems (Brahmi and Poumphone 2002).

Current constraints are affecting household livelihoods through impacts on specific components of their core subsistence enterprise portfolio:

- **Shifting Cultivation Stabilisation.** These policies eliminate the forest fallow option from the upland field component,
thereby limiting that option to other types of technologies. Fallows are seen as degraded or destroyed forest, rather than as a phase in an agricultural cycle, and since lands ‘abandoned’ for more than three years are reclassified as regeneration forest, there is pressure to not allow forest to regenerate for more than three years. This is cited as evidence of system deterioration, making calls to convert to permanent fields something of a self-fulfilling prophecy. While recent policies show more flexibility, it is already too late in many cases.

- **Zoning and allocation.** Land-use zoning within village boundaries can affect several components either positively or negatively. The key determinant of the nature and degree of impact is the way in which the zoning is conducted. Since the participatory poverty assessment indicated that upland people associated land allocation with increasing hardship (ADB 2001), these issues have been under study. Early results show that village zoning should set the context for identifying why, where and how any household allocation should be done.

- **Relocation.** This changes the whole land context of household enterprise, which could be for better or worse, but will certainly be different. Where new conditions are substantially different from the old, there can be an impact on the relevance of local knowledge related to land resources, and on the likely viability of plant and production system options. Major change in social capital is likely, especially for relationships among households and villages at the new site. New opportunities may also emerge, so there could be a net gain in household well-being, which is, of course, what the government hopes will happen.

Government strategies for opening new opportunities and addressing major issues of land use transformation centre on access to government support services, new production technologies, and commercial markets.

**References**


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