# Challenged Livelihoods in the Dry Areas: The Case of Khanasser Valley in Syria

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## Objectives

The objective of the study is to document perceived poverty levels and current rural livelihood strategies, and to explore potential options for improving livelihoods in ICARDA's integrated research site in Syria, which has agro-economic conditions similar to other dryland areas.

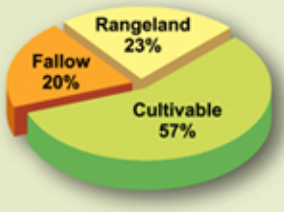
## Introduction

Improving rural livelihoods and the management of natural resources in dry areas is a great challenge for agricultural researchers, who must account for marginal and degraded land resources, recurrent drought, water scarcity, and limited economic options in these areas. ICARDA recently selected the Khanasser Valley Integrated Research Site (KVIRS) (200-250 mm annual rainfall) to test how integrated natural resources management (INRM) research could be applied.


Khanasser Valley Integrated Research Site

Services and infrastructure

Population density




Land-use in Khanasser Valley (2002)

## Methodology and Materials

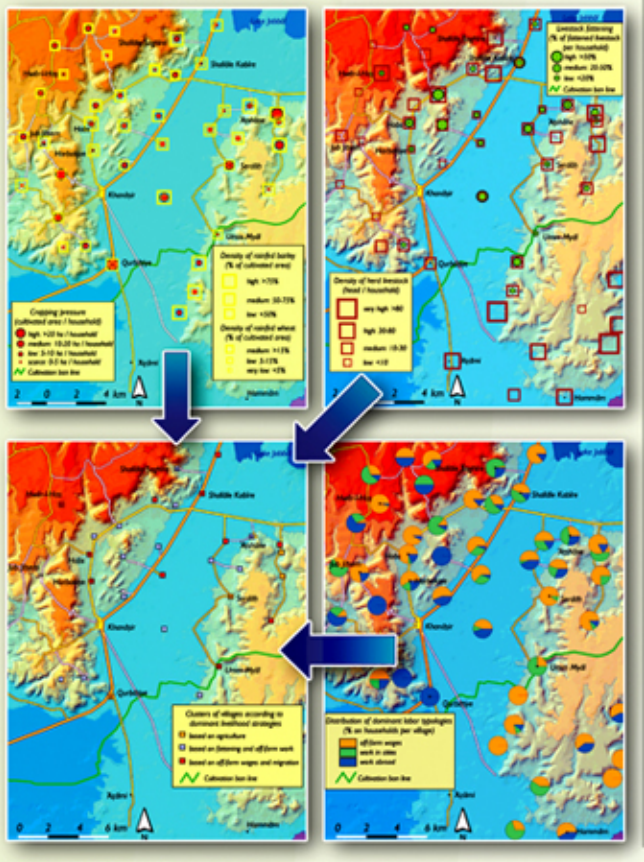
Following a livelihoods approach (Ellis 2000), villages in the target area were characterized using key variables, including population density, production orientation, land use, property rights, services and livelihood strategies (Mazid and Aw-Hassan 2002). Data were collected using Rapid Rural Appraisal, through semi-structured surveys and conversational interviewing (Salmen 1995) of key informants in each village. People's perceived poverty criteria and well-being categories were determined. Cluster analysis was performed on village-level data to classify homogeneous communities in relation to their dominant livelihood strategy. The variables were then overlaid using GIS, and representative case study communities were selected.

## Results

### Classification of communities using cluster analysis

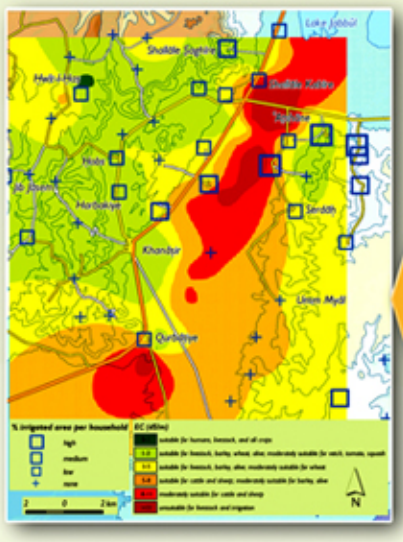
Three clusters of villages with broadly similar livelihood strategies were identified. Within these clusters, specific villages were selected to represent different livelihood categories.

- **Group I:** prevalence of agricultural production based strategies.
- **Group II:** prevalence of off-farm labour and sheep fattening strategies. Sheep fattening is an important economic activity for 15% of households. Producers buy lambs from extensive systems and fatten and sell them for a high price.
- **Group III:** prevalence of off-farm labour and migration strategies. Off-farm employment - in agriculture, locally or in more favorable areas, in cities, and outside the country - is an important livelihood strategy. About 53% of households have members who work as off-farm wage laborers, 20% as laborers in cities, and 13% outside Syria.



### Livestock production

With 28,000 sheep and about 1,300 goats in the valley, and about 70% of households owning livestock, sheep production has an important livelihood function. However, extensive animal production is increasingly being replaced by non-land-based intensive sheep fattening.

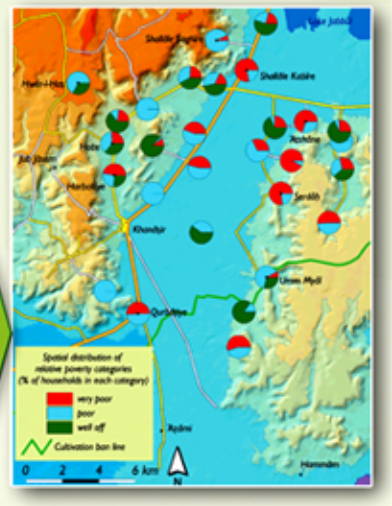


### Water resources

Groundwater in the valley is generally high in salinity, which makes it unsuitable for drinking. In the villages along the hill ranges, water quality is good, but well yields are low. Most people pay for drinking water, which is brought by tractor-pulled tankers from government water points and private wells. Irrigation of crops is limited.

### Well-being and poverty indicators

Well-being and poverty indicators were classified as: natural (sheep, land, water), physical (farming equipment), financial (sheep fattening, straw trade, owning wells, having cash, not having debts), and human capital (workers, migrants). Using these indicators, about 13% of households were classified as 'very poor', 48% as 'poor', 33% as 'moderately well-off', and 6% as 'well-off'.



## Conclusions

Livelihood strategies in rural dry areas are dynamic; people are always looking for new ways to augment their income. However, farmers' acceptance of practices with long-term environmental and economic benefits is uncertain. INRM's challenge is to develop options that bring tangible improvements in livelihoods and the environment.

This study has so far highlighted the following options for development, which are now being tested against social, economic, and environmental parameters:

#### Improving the barley/livestock system

- Drought tolerant barley varieties.
- Alley-cropping of drought resistant Atriplex shrubs with barley or vetch.
- Improved flock management; small-scale facilities to process quality dairy products.

#### Improving production practices for new crops

- Improved water-harvesting techniques for olive trees.
- Improved production of cash crops, such as cumin.

#### Promoting and supporting value-added enterprises

- Sheep fattening; institutional innovations, such as micro-credit, could enable the poor to engage in this profitable enterprise.
- Small-scale, added-value enterprises, such as production of medicinal plants and mushrooms.
- Establishment of micro-dams for limited irrigation.

#### Conservation and eco-tourism

- The villages of the valley, with their traditional beehive houses, ancient subsurface water channels (*qanats*), and nearby salty lake, with its wildlife and unique ecosystem, could offer nature conservation and eco-tourism opportunities.


Sheep milking


Cumin


Fattened lambs at the market


Traditional houses

## References

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