

## Executive Summary

This paper synthesises the preliminary findings, conclusions and recommendations emerging from the first year of AREU's study, "Applied Thematic Research into Water Management, Livestock and the Opium Economy" (abbreviated to WOL). Funding for the project was provided by the European Commission.

Agriculture has traditionally occupied a central position in the Afghan economy, and a high proportion of rural Afghans have historically depended on agriculture for their livelihoods. After years of disruption due to intermittent conflict, drought and population movements, there were high expectations that agriculture would return to its former primacy following the establishment of the Transitional Islamic State of Afghanistan in 2001.

Continuing problems with agriculture (and rural society and economy, more widely) have been associated with a rapid growth of the illicit opium economy. By 2005 this was estimated to account for 46 percent of GDP and engage 12 percent of the rural population. The large scale of the problem has made the search for alternative livelihoods an integral component of rural planning and policy formulation. Key directions for agricultural policy have been set out in the Agriculture Master Plan. The plan emphasises liberalisation of the agricultural economy and seeks to promote growth in the sector through the creation of value chains. The Master Plan links food and livelihood security to thriving agro-industries and rural employment markets.

Against this background of strategising by the Government of Afghanistan and its international partners, AREU has carried out research investigating farmers' decision-making processes and farming systems in rural Afghanistan. Specifically, the research focuses upon farmer access to key natural resources and how this access shapes both agricultural production and livelihood decision-making. This research will generate clear, evidence-based recommendations for determining and achieving policy goals by characterising farming

systems and identifying opportunities for – and constraints upon – agricultural development.

WOL research conceptualises farming systems and rural livelihoods holistically within a wider context of agro-ecological conditions, access to natural resources, and the function of markets and other rural institutions. WOL further recognises that farmers may make tradeoffs among multiple and complex farming objectives. To capture some of the diversity inherent in Afghan farming systems, the first year of WOL research was undertaken in eight provinces at the household level of diverse communities, including sedentary cultivators, agropastoralists, nomadic pastoralists, sharecroppers and agricultural labourers. Key first-year thematic findings of the WOL project are detailed below.

### Land access and tenure

Few, if any, farmers in Afghanistan hold official titles to the land they occupy. Consequently, nearly all transactions and adjudications occur within the customary local system, and farmers access land under diverse forms of tenure that have different associated terms and levels of risk. WOL research indicates between a quarter and a third of all cultivated land at research sites is managed under some form of temporary use agreement (subordinate land rights).

Fragmentation of private land holdings and growing pressure on land resources everywhere means markets for land are largely stifled. However, significant differences in mean land holdings exist under different systems of production. At some research sites, per capita land holdings are clearly insufficient to sustain livelihoods under licit cropping without supplementary incomes.

Common property land resources are of particular value to the resource poor. While disputes over these resources are less common than those over private land, they more frequently involve actors "external" to customary management systems.

Consequently, such disputes are not so easily addressed by informal institutions.

### Irrigation water management

Although surface water is usually managed as a common property resource, groundwater from wells and *karez* is more commonly managed as private property, beyond community sanctions. This can lead to unregulated extraction at the expense of other irrigators and water users and may exacerbate socioeconomic inequalities.

The effectiveness of surface water irrigation is related to three major factors besides source. These are: the hydraulic performance and structural attributes of the conveyance system; the location of the farm site; and how water allocation is being managed locally through institutional arrangements.

While the general principles of water management are similar across Afghanistan, there exists considerable regional variation in practices, reflecting specific cultures and resources conditions. Large and complex lower-catchment irrigation systems appear most susceptible to structural and social inequalities in water allocation. The *mirab* water management system, found widely in these lower catchments, is not always sufficiently resourced to redress inequities; it may indeed simply institutionalise local power relations.

The supply of irrigation water appears to directly impact on-farm diversification, food security, entry into agricultural markets and prospects for sustainable licit livelihoods. Furthermore, inequitable irrigation management places excessive labour demands on the most vulnerable.

### Livestock management

Livestock can perform a range of different functions within farming systems and livelihoods, depending upon farmers' choices, available resources and production conditions. Small numbers of animals can be effectively integrated into irrigated cropping systems, bringing the benefits of diversification. Under high-risk rainfed conditions, the herding

of sheep and goats forms a complementary and potentially value-adding activity.

The management of sheep and goats for market supply seems dependent on access to natural pastures and rangelands. This is particularly true for nomadic pastoralism, although all systems of production ultimately depend on access to cultivated or purchased winter fodder.

It was found that, overwhelmingly, farmers attempt to minimise livestock production costs and thus animals rarely achieve full productive potential. The entry costs and risks of investing in livestock for income generation and capital growth restrict this activity to wealthier farmers or specialised herders. Furthermore, livestock extension and healthcare services seem to be concentrated in locations where animals are usually managed for subsistence rather than market values. Management for market supply is usually practiced in rangeland communities where livestock support services appear under-represented.

### Opium Cultivation

Opium represents a profitable high-value crop for a small number of wealthy landowners. But, for many households afflicted by severe resource scarcity, it constitutes the only crop that can sustain a farm-based livelihood given available resources. Movement into and out of opium cultivation can therefore involve a spectrum of "push" and "pull" factors. Indeed, there is no single reason or set of conditions that leads farmers to choose to cultivate a poppy crop. Farmers make their choices within a complex and changing management environment, and therefore it seems unlikely that any "one size fits all" strategy could reduce cultivation. Furthermore, patterns of cultivation are highly dynamic: not only may farmers shift into and out of the crop on an almost annual basis but also, when prevented in one area, opium cultivation may spread to another.

Findings further confirm that opium production is deeply embedded in the rural economy. Poppy commands preferential access to land, water credit and other resources, and opium production

has a strong “multiplier” effect in terms of creating employment and off-farm opportunities.

Households with secure access to adequate agricultural resources, markets and off-farm incomes are best positioned to make a sustainable transition to licit livelihoods. By contrast, isolated communities facing resource scarcity and lacking access to markets or licit sources of off-farm income may not have credible options for constructing alternative livelihoods. Accordingly, enforced reductions in opium cultivation have disproportionately severe impact upon these poorest and most vulnerable.

### Farming livelihoods

Afghan farmers appear to be dynamic and innovative in their farming choices and livelihood strategies. Households are constantly seeking new ways and better combinations of activities to achieve livelihood goals, mitigate risks and take advantage of available opportunities. WOL provides evidence that, as economic and production conditions and opportunities change, farmers change cropping and production strategies between one year and the next or that they move out of agriculture into waged employment (and vice versa). These diverse and dynamic strategies call into question the assumption that all rural Afghans are farmers and that strengthening agriculture should remain the principal conduit for building the rural economy.

The data indicates a strong subsistence orientation in irrigated farming, reflecting an aversion to risk in a high-risk production environment. Farmers commonly prioritise cultivating food crops sufficient to meet their household requirements and so achieve a degree of independence from markets. However, few households command the resources to achieve subsistence. Accordingly, it is usually necessary for them to generate cash incomes for additional purchases, either through the supplementary cultivation of a high-value crop, sale of livestock products, or off-farm waged labour. Most Afghan farmers practice a diversified composite strategy of this type.

Specialised production for market supply is uncommon among farmers involved in the study and is normally associated with high risks. It is sometimes practiced by wealthy farmers with sufficient resources, (natural, financial and social) to survive the failure of the crop itself or the collapse of markets. Only under these conditions do farmers appear confident to practice classical economic “maximising” behaviour. However, at the other extreme, households under conditions of severe resource scarcity may be “pushed” to produce high-value products for market if their resources cannot supply sufficient food to meet their requirements.

Finally, WOL data suggests that while spectrums of livelihood security and vulnerability exist across all forms of agricultural production, those dependent on rainfed agriculture are the most vulnerable of the categorised groups investigated. This was due to their remote locations, poor access to off-farm employment, low-crop diversity and high-risk agricultural practices. Nonetheless, findings suggest that nearly all the rural households studied face dietary deficiencies.

### Key recommendations

#### *Take measures to promote greater equity in natural resources access*

There is a need to promote greater equity in access to natural and agricultural resources to help the resource poor participate in markets. There are important steps that the Government and other implementers can take to help facilitate this: foremost, existing legislation governing resource use should be enforced (e.g. prohibition of unlicensed extraction of groundwater as well as illegal seizure and cultivation of common lands). The governance capacity and accountability of informal institutions overseeing resource access should also be strengthened through training and empowerment of stakeholders. Project implementers should further try to ensure that interventions provide benefits to all stakeholders in a resource system, not only those with preferential access.

***Recognise heterogeneity in planning with “smarter” programme interventions***

WOL studies have described a diversity of opportunities and constraints related to agricultural production around the country. This reinforces the need for greater sensitivity to local conditions when planning interventions: planning needs to be better targeted and the nuances of agricultural and livelihood conditions at specific locations need to be better understood. For example, to help offset some of the risks faced by the resource poor, programmes aiming to stimulate production for market supply might consider offering them preferential access to key agricultural inputs (e.g. credit or fertilisers) or access to markets (including for off-farm labour).

***Start building “value chains” where production already exists for market supply***

Owing to the general unfamiliarity with (and lack of confidence in) markets, a strong recommendation arising from the research is to sequence the development of markets commencing with subsectors and locations where production is already predominantly for market supply. It may be difficult to foster confidence in markets for newly introduced products or ones which have not traditionally been marketed.

***Recognise the values of non-market agricultural production***

Policy emphasising production for market supply risks overlooking some of the important functions of non-monetarised production. Particularly in remote locations and with poor access to markets, farm products can make important contributions to household well-being and the functions of the farming system. This is true in the long term, but also through shorter periods of crisis or for special needs. These functions can include bridging periods of cash scarcity, non-monetary transfers to service social networks, and maintaining livestock as stores of value.

***Extend development initiatives into marginal, outlying districts***

At present the main focus of infrastructural and rural development programmes is on the more accessible river valleys and lower catchments, where the majority of the rural population lives. However, WOL studies have demonstrated that outlying districts are often resource poor; so, it is possible that expanding programmes to these areas may have a proportionately higher impact. WOL research demonstrates that some types of initiatives (such as those concerning commercial livestock production) may actually be misdirected if restricted to the populous river valleys.

***Provide for integrated rural development***

These preliminary research findings indicate that sustainable licit agricultural livelihoods are most likely to emerge under conditions of secure tenure and access to natural resources, diversified agriculture with production for strong rural markets, and opportunities for ancillary off-farm labour. Local security, economic prosperity and good governance have all been demonstrated to contribute to this enabling environment. Accordingly, agricultural development policies will be most effective if implemented within a multisectoral convergence of interventions to foster thriving rural communities. This recommendation signals a need for continuing and improved coordination among line ministries, particularly at provincial level.

***Standardise data collection***

There is currently no standardised mechanism for the collection of data on which to base agricultural policy. Data that is collected comes unsystematically from diverse locations and different NGO and institutional sources; they derive from different measures and standards that hinder integration and comparison. The Government should take the lead to establish a systematic framework for data gathering, around which all institutions can then build their own data collection. The results of all future studies could then be integrated in a central database.