

LINKING RELIEF, REHABILITATION AND DEVELOPMENT PROGRAMME (LRRD) IN AFGHANISTAN

Understanding needs diversity to design sustainable programmes: the case of wheat seed distribution programmes

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In Afghanistan, many relief programmes are based on wheat distribution. In order to help the Afghan people after 20 years of war and three years of drought (1999-2001), the international community provided vast amounts of money for the implementation of emergency programmes. During the years of turbulence, many households lost their assets, such as breeding animals, mills, land, etc. To help communities avoid asset depletion, organisations distributed food. Wheat distribution was a particularly appropriate solution during the relief period, as people's diet in Afghanistan is mainly based on wheat (60% of daily intake is wheat).

Today, donors and NGOs alike are shifting from emergency programmes to development as in many parts of the country, relief aid is no longer relevant. As the photo below illustrates, many programmes are looking to improve wheat yields by introducing new varieties, fertilizers and giving advice. Wheat improvement projects are widespread throughout Afghanistan (budget of millions of dollars). This paper will discuss the relevance of these programmes in terms of the beneficiaries themselves, taking into account the wide variety of different types of farmers.



Research on wheat carried out by NGOs

Diversity as a constraint for projects

Situated in the middle of the mountain region in the north of Afghanistan, the valley of Baharak (Badakhshan province) has three rivers feeding into it. Almost all of the land is irrigated arable land with a high agricultural potential.



Baharak valley

Since the *Pushtunisation*, many migrants have left neighbouring districts or distant provinces to settle in Baharak valley. These migration patterns combined with an improvement of health conditions has resulted in a surge in population growth. Baharak valley is currently progressing towards agriculture intensification. At the beginning of the last century, households based their activities on an agropastoral system. Farmers had access to enough land to feed large herds and flocks. Animal husbandry was then just as important as agriculture. However, the rise in population numbers has led to a significant drop the land capital per household. One of the main coping strategies to face this change was a reduction in fodder crop (involving a decrease in livestock breeding) in favour of food crops such as wheat. Today, as the amount of available land surface is reduced, farmers are starting to develop cash crops.

Diversity is a reality: Typology, a tool

In the valley, there is a wide variety in different types of household: sharecroppers, small landowners, big landlords, landless people, all of whom have different objectives and develop different strategies. In order to implement relevant and efficient projects, it is essential to take into account this diversity in the assessment phase as well as to monitor how this diversity is evolving. In order to integrate, highlight and categorise this diversity, a typology can be used. The objective of the typology tool is to identify groups (types) with similar potential and similar problems in order to implement specific programmes for each situation.

Due to the agro-ecological context, it is not possible to extend arable land. Due to population growth, land property per farm is decreasing. According to the farmers, land property is the most important factor in determining their strategy. Big landowners will be interested in optimising labour input and small landowners, in optimising the land.

Big and small landowners: diversity of needs in space

How can we determine the degree of wealth of a household? If we compare a family composed of 25 people with 3ha and a family of three with 0.5ha, which one is the wealthiest? As discussed earlier, wheat is the main staple food and one adult consumes roughly 240kg of wheat per year. Given the average wheat yields in Baharak, in order to be fully self-sufficient, each household requires 0.25ha of land per adult (see Box 1).

Households with more than 0.25ha per adult are capable of generating a surplus of agricultural produce.

It is highly difficult for small landowners to reach self sufficiency: they need to adapt their farming system or to resort to off-farm activities. Households with insufficient land represent more than 80% of people in Baharak district. On paper, wheat improvement programmes appear to be relevant as their objective is to improve food security. Unfortunately, even with high performance wheat varieties, such as European varieties, almost 80% of farmers remain food insecure. However, the straw of improved wheat varieties is shorter than local varieties, so even if improved wheat produces a twofold increase in grain yields, straw yields are lower. In this case, it is important to ask whether wheat improvement programmes are still relevant in an area where the key constraint is lack of land?

Box 1: Minimum amount of land required for self-sufficiency is 0.25ha per adult

According to 100 interviews, average wheat consumption is about 240kg p.a. per adult. Wheat is a biennial crop with a minimum of 20% for fixed charges (threshing and flour process) and about 800kg per hectare of wheat for non fixed charges (seed and fertilizer). Average wheat yields are roughly 3,000-4,000kg per hectare. $([3,500 - 800 - 20\%]/2 = 1,000\text{kg/year})$. $240/1000 = 0.25 \text{ ha/adult}$. In the improbable case that yields reach 8000 kg per hectare, one adult will need 0.1 ha: only 50% of interviewed households would be self sufficient.

Farmers who do not have enough land to reach food security with farming activities have to diversify their income source. Many families sell out their extra labour force (daily labourer, mason, porter or shopkeeper). Since cropping systems based on wheat are not very labour intensive, people are able to diversify their activities. Since the private sector is not very well developed, finding off-farm work is difficult. Even in Baharak district where poppy stimulates the economic sector, it is very difficult for people to find work in addition to their farming activities.

The second strategy is to intensify their cropping system. Because lack of land is the main constraint, farmers try to increase their profits by growing more high value crops.

As the wheat market remains variable and the wheat production network is not completely settled, poppy is a very attractive alternative. Besides the fact that poppy generates up to

15 times as much income as wheat, the production and marketing chains are very well established. This year, the poppy eradication plan commenced in Badakhshan and farmers have sown less poppy. Many small landowners changed their strategies: some of them returned to wheat this still gives them free time remains for off-farm activities. Others favoured high value crops, such as potatoes, tomatoes or onions.

This study emphasises the variety of strategies adopted by rural communities. In order to support farmers' coping strategies, development programmes need to have a more precise understanding of these strategies and how they evolve over time.

Male domestic workers: diversity of needs over time

Farmers adapt their strategies according to the family composition (number of people to feed, workforce, etc.). Family composition evolves according to diverse historical, sociological or geographical factors. In order to fully comprehend this variability, an average life cycle was designed taking into account the ratio of domestic workers / domestic consumers (cf. Figure 1). Moreover, since women are not involved in many agricultural tasks or in off-farm activities, they have not been taken into account when calculating the domestic workforce. This ratio then becomes male domestic workers / home-consumers.

How can we distinguish between a family with insufficient male domestic workers and a family that does not? With around 150 afghanis per day, which is the minimum average local salary, one adult is able to support two other adults.

One daily labourer can support two other adults
 One adult needs about 25-30 afs worth of food a day. Fuel costs, which is considered as a fixed charge accounts for roughly 50-90 afs a day. With 150 afs a day, one adult can buy fuel and provide food for three adults, himself included.

When this ratio exceeds 3, it implies that one domestic worker has to support more than three adults, and in this case, daily work is not enough. 80% of interviewed households are above this limit and are unable to live on the minimum salary. This labour ratio varies over time. The balance between domestic workers and family consumers changes as children are born, grow older and start working within the household, and eventually leave the household to start their own families.

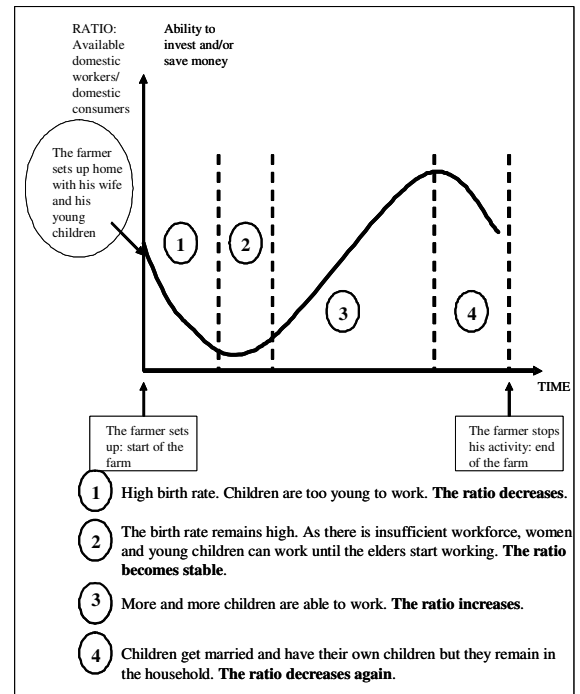
It is therefore essential to consider the dynamics of household reproduction, both to understand the behaviour of farmers in specific cultural contexts and the implications of the household life cycle (cf. Figure 1). This diagram shows that the labour ratio varies according to the family composition. The higher the ratio, the more money male domestic workers have to earn per day.

Development stakeholders have to adapt their programmes to the way in which farmers' strategies evolve. For example, it would be more effective to target women's programmes at households that have in sufficient male domestic workers since men are already accustomed to involving women in agricultural activities. They will be certainly more receptive to programmes targeting women.

As we can see from the life cycle diagram, women's programmes would be more appropriate for households at stage 2 rather than households at the end of stage 3.

Being aware of how needs change over time can make programmes more efficient. The right programmes can be proposed at the appropriate stage(s) of the farm life cycle.

Figure 1: Life cycle of Afghan households in Baharak



The typology: six household categories
 As the figure 2 shows, by crossing these two factors (land and labour), six household types emerge. Each category has different potential strategies in order to reach their objectives.

68% of households (type 4 and 6) face a double constraint: a lack of land (small landowners and landless) and lack of male domestic workers. They are trying to increase land productivity in order to generate more income per ha (both in cash and in kind). Since this type of strategy is highly labour intensive, households which are already labour-deficient are unable to take this option. Programmes targeting the most vulnerable households have to take into account these two constraints.

Sustainability does not only rely on the relevance of programmes but also on the characteristics of the targeted population. This highlights the need to have a comprehensive and precise understanding of the diversity of households and the diversity of strategies. Failing to take into account this diversity may lead the exclusion of certain households.

Diversity of needs: diversity of programmes
Programmes diversity between relief and development

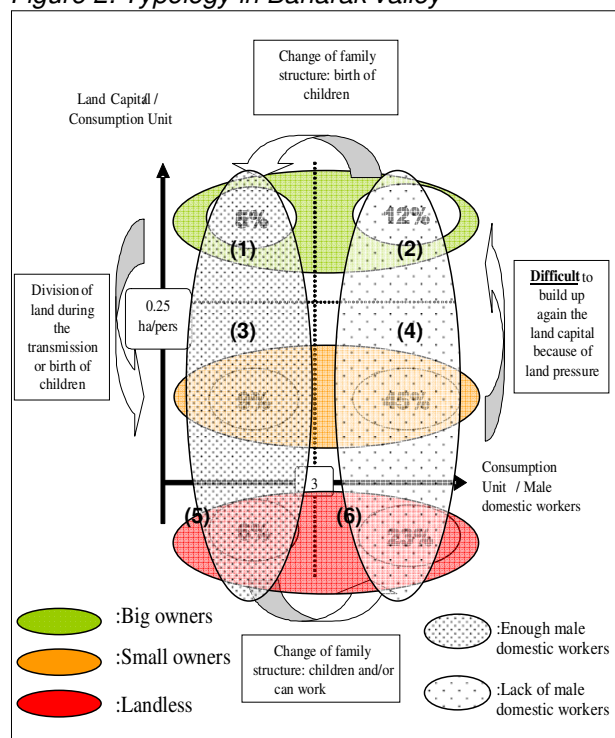
Households which face both a lack of land (small landowners and landless) and a lack of male domestic workers are the most vulnerable. The slightest upheaval may have disastrous consequences. Poor yields because of rust, smut or a lack of fertilizers, a temporary drop in workforce (illness, etc.) may have a severe effect on the household. Farmers may even be forced to sell off their productive assets.

Besides, when taking into account the way people's needs change and the household life cycle, programmes also need to consider the risk of upheaval and their consequences. Certain households do not have the capacity to cope with these upsets. Development programmes need to be flexible enough to integrate relief programmes. For example, a micro-finance project which is a typical development-oriented project would have no long-term positive impacts for vulnerable households trying to cope with a serious upset. These households would most probably use the money provided by the micro-finance programme to buy food instead of using these funds to increase their assets. Programmes should be flexible enough to address emergency needs, prevent asset depletion and assess the impact of the overall programme.

Different development programmes

For many years, wheat programmes have formed the core of development programmes. Since farmers have become accustomed to this type of programme, it takes time for them to accept other types of projects proposed by NGOs, such as cash crops or fodder crops programmes. Lots of NGOs are proposing low price "packages" composed of one bag of wheat and one bag of urea. The package is offered at a preferential price and prompts farmers to sow wheat in their fields. Therefore farmers sow wheat instead of finding alternative solutions to the lack of land. For example, we can suppose that without wheat packages, farmers would sow higher value crops, such as vegetables. 80% of households can not ensure the sustainability of their farming system as they are based on wheat. Development organisations need to find a better balance between wheat improvement programmes and other alternatives.

Figure 2: Typology in Baharak valley



Baharak bazaar, a great potential

Crop diversification is one of the strategies used by households. High value crops, such as poppy, are seen by farmers as a way of intensifying and stabilising their farming system. Legal high value crops require support from development programmes in order to strengthen the farming systems of small landowners and the landless. Fruit and vegetables are an example of high value crops that would benefit from development. There is an interesting gap in the Afghan market for this type of crop.

Fight poppy with diversification

To ensure the efficiency of poppy eradication programmes, it is necessary to take into account household diversity. Farmers' decision making processes are based on several factors, including land capital, domestic workers, access to credit, religion and geographical situation. In Baharak, as we saw earlier, land capital and labour ratio are the most important factors. To improve relevance, programmes need to address the constraints faced by households and take into account these two factors.

Afghan farming systems are highly diversified. Failing to take into account this inter and intra household diversity may produce negative impacts (unsustainable programmes, waste of time and money, disillusioned beneficiaries). Programmes should be based on household diversity and endogenous dynamics. In Baharak, many households are undergoing a process of intensification in order to cope with the lack of land, and maybe even the lack of male domestic workers. Programmes should support this evolution and ensure that they do not hamper these coping strategies. Capacity building for local government and NGO staff should be carried out to improve programme design. The in-depth knowledge of local staff who generally have a good understanding of people's needs and constraints should be better valued. And finally, thorough research needs to be carried out at a local level before embarking on programme design.