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## FARMERS RISING OUT OF POVERTY

### How vegetable production improves livelihoods in Kyrgyzstan and Tajikistan

The Local Market Development Project (LMD) successfully promotes market linkages between small vegetable and fruit producers and domestic processing companies in Kyrgyzstan and Tajikistan. Through trainings from local service providers, the farmers improve the profitability of their production, reduce the use of chemical inputs and enhance the quality of their produce. Based on yearly supply contracts, the farmers sell growing shares of their production to processors and achieve a substantial increase in average income, reaching 35% of the total farm-income in Kyrgyzstan and up to 67 % in Tajikistan. This allowed a large number of families to escape absolute poverty. In 2012, almost 7'000 farmer families participated in the project, growing and marketing 15 different varieties of crops. Moreover, an increasing number of jobs are being created in the local processing companies, especially for women. Through the new dynamic, the project managed to boost the domestic vegetable and fruit sector: In 2011, the LMD farmers alone produced 2% of tomatoes and cucumbers in Kyrgyzstan and 4.4 % of tomatoes and onions in Tajikistan.

## WHAT IS THE PROJECT ABOUT?

The Local Market Development Project (LMD) started in Kyrgyzstan in 2005 funded by ICCO and Helvetas and was extended to Tajikistan in 2007. The objective is to improve smallholder incomes through the production of vegetables and fruits for local markets. To achieve this, local fruit and vegetable processing companies are linked to farmer groups who deliver fresh produce in bulk. The processors mainly supply domestic markets, selling processed products such as tinned tomatoes or cucumbers.

Agriculture in post-soviet Tajikistan and Kyrgyzstan is still dominated by low mechanisation and productivity levels. The marketing of fresh and processed agricultural products is not well organised due to the small scale and low quality of the production.

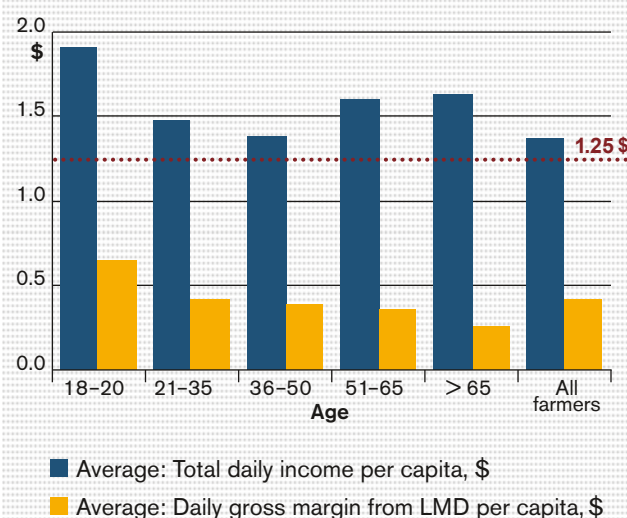
The LMD project successfully stimulated a new positive dynamic in the sector:

- The project promotes crops of high quality and high value such as tomato, cucumber or cabbage. The gross profit per hectare for tomato and cucumber is about 50 to 25 times higher than for wheat.
- The project successfully introduced Integrated Production Management (IPM), by which the efficiency of input use is increased and the use of chemicals minimised. In 2011, 77% of LMD farmers applied IPM, increasing their productivity by 30 to 50% on average.
- Farmer groups are linked to local processors who buy the produce from farmers based on contracts. Hence farmers benefit from more economic security, more flexibility, and in peak seasons they can sell produce not absorbed by local fresh markets to processors. The companies also purchase produce of second quality for tinned products. In 2011, 35% of the total produce, 56% of cucumbers, 74% of onions, 92% of cabbage and 100% of vegetables grown in greenhouses by LMD farmers was sold to processors.
- The farmers receive trainings from local NGOs in quality management, improved farming methods and production planning. It is in the interest of the NGOs to provide a good service to the farmers as the processing companies pay them a 10% commission according to the volumes delivered by the farmers. This is a promising model since it is demand driven and the NGOs gradually reduce their dependence on external funds. By 2011, the project had enabled 23 local organisations to offer this form of support. A challenge of this payment model is that the NGOs tend to select bigger, more experienced and less remote farmers because these are likely to bring in the highest commissions.



Women sorting tomatoes in processing company  
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### Daily total income and LMD margin (\$) achieved per age group in Kyrgyzstan 2010



## STUDY METHODOLOGY

The LMD project stands out for its extensive reporting and a good availability of information. With the aim of providing thorough monitoring and reporting to partners and of taking timely adaptive measures, an extensive database was established. The database covers all LMD farmers in Kyrgyzstan and Tajikistan by means of 50 criteria. For this impact study, extensive quantitative analysis of the project database was carried out. The results were discussed with farmers and project partners for validation.



## A REAL OPPORTUNITY FOR

### POVERTY ALLEVIATION

In 2012 the LMD project directly reached 6'870 farmer families in both countries, and more benefitted from the project in earlier years. Most families are below the poverty line: In 2011, about 45% of the Kyrgyz LMD farmers had a daily income of less than 1.25 US\$. Another 21% earned less than 2.50 US\$ a day. On average, the farmers use 0.20 to 0.25 hectares or 15 to 25% of their holdings to cultivate vegetables and fruits. On the remaining land they mainly grow wheat. As vegetable production is not mechanised and highly labour-intensive, the use of bigger land shares is often not possible. Most households cannot afford hired labour either. Also, farmers aim to minimise the economic risks of crop failure and unforeseen market trends such as price decline or excess production. Still, in 2011, the LMD farmers alone produced 2% of total tomato and cucumber production in Kyrgyzstan and 4.4% of tomato and onion production in Tajikistan.

In 2011, LMD farmers achieved an average additional household income of 1'140 and 2'060 US\$ in Kyrgyzstan and Tajikistan, respectively. This substantial amount contributes to 35% of the total farm income in Kyrgyzstan, and even 67% in Tajikistan. These figures show that thanks to the margin achieved through the selling of fruits and vegetables a very significant number of farmers managed to escape absolute poverty.

### AS SOURCE OF INCOME FOR WOMEN

Women and men achieve equal income levels from the market oriented production. In Kyrgyzstan, the project managed to involve women and men to the same extent, whereas the percentage of women in Tajikistan is about 30%. This is mainly due to the fact that the project includes 750 lemon producers with greenhouses. The hard work such as pruning or the repairing of greenhouses is usually a men's domain. Moreover, many Tajik farmers lease land located far from their home, but working outside the village is not common for women.

### YOUNG, MALE, SUCCESSFUL

Young men are particularly successful in generating income from local market oriented vegetable and fruit production (see figure I). In view of increasing labour migration of young household members to neighbouring countries, the high profitability of market oriented vegetable production offers viable alternatives at home and might motivate young family members to stay at their farm. For instance, the average remittance per labour migrant in Kyrgyzstan in 2011 was around 1'370 US\$ per

year – an amount equivalent to the average income of the farmer received from the seasonal LMD project activities (1'140 US\$).

## INCREASED FOOD SECURITY THROUGH

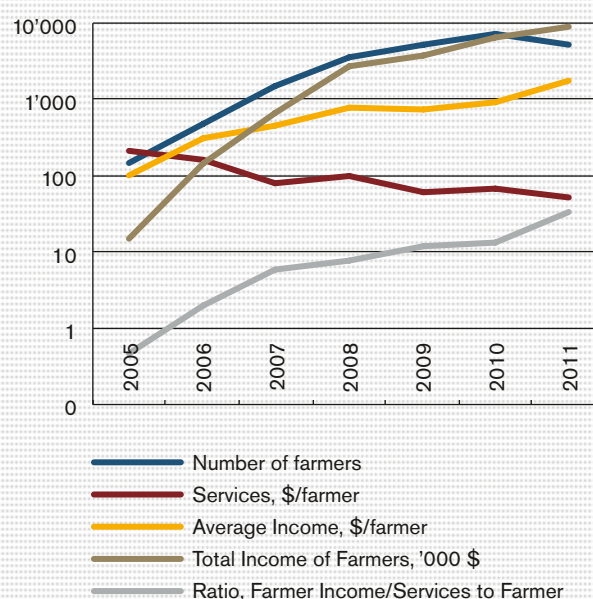
### CASH CROP PRODUCTION

Growing vegetables and fruits requires initial financial investments. What is more, these crops are susceptible to diseases, pests and extreme climatic events so that the overall economic risk for farmers is higher than for wheat or potatoes. Critics of market oriented production claim that the food-security of households can be at risk in the event of crop failure or price hypes.

The project is highly sensitive to this risk. However, the reality shows that in most cases, the local market oriented production helps also improve the food security of families. Most LMD farmers grow vegetables only on small parts of their land (15–25%). The wheat production on the remaining land usually still exceeds the home consumption. Moreover, the cash farmers earn from selling the produce in good years normally corresponds to a multiple of wheat value equivalent they would achieve on the same surfaces. This income also allows farmers to be flexible in terms of food purchase.

Still, in view of soaring world prices for staple commodities and the visible trend of LMD farmers growing cash crops on bigger surfaces, the project will carefully observe the development and take measures in case food security is at risk.

Return on investment of the LMD project



« In the past, the conditions of the processing factory were not good, but since we have the supply contracts, I can sell my tomatoes to an attractive price. »

Farmer Bakir Aitanov, 51 years old, Kyrgyzstan

## THE PROJECT INVESTMENTS PAY OFF

For each US\$ which the project invests in services for farmers, they achieved an income of 33.6 US\$ in 2011. This good result can be attributed to the improved ownership and professionalism of local service providers and farmers, the new compensation model for services (10% commission from processing companies) and the increase in volumes per farmer sold to processors.

## OUTLOOK

In the current new phase, the project puts a focus on the following intervention areas:

- Increase the number of farmers that improve their production methods through IPM.
- Further increase the overall number of farmers and volumes of sales to processors in order to create economies of scale.
- Stimulate the supply of seeds to produce crops that are in demand locally and regionally.
- Stimulate export trading companies to export fruits and vegetables, through the development of export-marketing plans and market intelligence.
- Identify foreign traders to import produce and facilitate commercial linkages to export companies and processors.
- Support processors to improve their performance in terms of quality, quantity, product range and marketing.



Farmer Bakir Aitanov in his tomato field  
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## REFERENCES AND LINKS

Further information on the LMD project

### **Kyrgyzstan:**

[www.kyrgyzstan.helvetas.org/en/activities/projects/lmdp/](http://www.kyrgyzstan.helvetas.org/en/activities/projects/lmdp/)

### **Tajikistan:**

[www.tajikistan.helvetas.org/en/activities/projects\\_tajikistan/local\\_market\\_development/](http://www.tajikistan.helvetas.org/en/activities/projects_tajikistan/local_market_development/)

### **Full report of impact study:**

[www.helvetas.org/news\\_\\_\\_resources/publications/](http://www.helvetas.org/news___resources/publications/)  
or [www.kyrgyzstan.helvetas.org/en/publications/](http://www.kyrgyzstan.helvetas.org/en/publications/)