Fighting Hunger Worldwide

Procuring Wheat Flour, Pulses and Vegetable Oil in Tajikistan

WFP
World Food Programme
wfp.org

UKaid
from the Department for International Development

Acknowledgements

This report was prepared by WFP Consultant Svetlana Mathivet with the contribution of Cedric Charpentier and Malohat Shabanova (WFP CO Tajikistan). The report was made possible thanks to thefinancial contribution of the UK Department for International Development.

Its production was made possible thanks to the remarkable administrative, logistic, technical and advisory support provided by all staff of WFP Country Office Tajikistan.
and colleagues from WFP Country Offices and WFP Headquarters. Special thanks go to Alzira Ferreira, Bahodur Khodjaev, Nelly Arvanitidy , Saidamon Bodamaev, George Gegelia , Saidjon Djalolov, Nazifkhon Burkhanov, Shavkat Gaibov, Azam Bahorov, Manuchehr Aminov and Stephane Meaux for their assistance in the collection of data and information and helpful comments and suggestions on the entire report.

The author is peculiarly grateful to members of republican, regional and local State institutions as well as of development partners who procured high quality data and irreplaceable expertise and advice to design the framework and methodology of the study. Thanks are due to Beate Schoreit, Jamil Jamani (AKDN), Yormuhammad Bozoriev (WUASP), Nematjon Rahimov (ACTED), Filippo Crivellaro, Negmatjon Negmatov (CESVI) and Jamshed Sanginov (Seed Association of Tajikistan) who in addition greatly facilitated visits to the field.

Of course, all individuals interviewed on the field also deserve special thanks for their welcome and the openness with which they participated to this study.

Finally, the author is very grateful for the following reviewers of the presented report: Blake Audsley (WFP), Alzira Ferreira (WFP), Zlatan Milisic (WFP) and Nasiba Nabi (WFP).

--
svetlana.mathivet@gmail.com
mobile +992 91 720 74 19
office + 992 37 224 39 50, ext. 2450

The author's views expressed in this publication do not necessarily reflect the views of the World Food Program or those of the UK Department for International Development.

©WFP, April 2011

TABLE OF CONTENTS

--

List of Figures

--

List of Tables

LIST OF ACRONYMS

AKDN: Aga Khan Development Network
DAP: Delivered at Place
DRD: Direct Rule Districts
EC: European Commission
EXW: Ex Works
FOB: Free on Board
GBAO: Gorno Badakhshan Autonomous Oblast
Ha: Hectare
MoA-RT: Ministry of Agriculture of the Republic of Tajikistan
MT: Metric Ton
MMT: Million of Metric Tons
NGO: Non-Governmental Organization
PTA: Parents and Teachers Association
RT: Republic of Tajikistan
TB: Tuberculosis
VAT: Value Added Tax
WFP: World Food Programme

I. Introduction

1. *Purpose*

The present assessment aims at providing an up-to-date picture of the local conditions of production and distribution of three food products used as part of WFP food distribution programs in Tajikistan: fortified wheat flour, pulses and vegetable oil, in order to assess if these products, which are currently provided through imports (mainly from Russia and Kazakhstan), could be at least partly procured locally.

Local procurement aims at substituting all or part of an imported food product by a similar food product grown locally, or by a close substitute. The main expected benefit attached to local procurement is a poverty alleviation effect, through the stimulation of the activity of local and especially small producers and traders. This objective can be reached by buying locally produced goods, but also, applying a less strict definition of local procurement, by buying imported food from local traders. Many challenges are to be expected in procuring locally, we derived the main criteria of the present feasibility assessment from the following questions:

Price: Is the local market able to procure food at a price equal or lower than the WFP Import Parity Price (IPP)?

Quality: Is the local market able to procure food products which comply with nutrition and safety norms of the WFP?

Institutional constraints: Is the broad institutional context stable enough to guarantee mid/long term sustainability of the local procurement scheme (management capacity at facility level, transparency in trade and distribution conditions, and access to loans to develop capacity and improve quality, etc.)?

Potential negative impact on local markets: Another risk linked to local procurement would be to disturb local markets with a massive demand boosts due to large quantities purchased for the needs of WFP programs. This effect could be all the more important if the market for local food products already face excess demand and that local production capacity is limited by investment and institutional constraints.

2. *Structure of the report*

The current study starts with a broad picture of the current Tajik context. What are the main needs and characteristics of the WFP programs which are currently procured through imports? Have there been any previous attempts by development partners to procure food locally for certain feeding programs and what were the outcomes: successes and difficulties?

Based on this broad picture, we then determined a methodology for the collection and analysis of as much information as possible from republican and local stakeholders, in order to assess the local capacity to procure the main inputs to the WFP feeding programs: fortified wheat flour, pulses and oil.

We will then present the outcomes of field visits to farmers, traders, and millers on the basis of which we assess their capacity to fulfil quality, safety, quantity and processing requirements of the program.

Based upon this assessment, acknowledging existing challenges, the study will conclude by proposing potential solutions in order to meet the programs needs and standards while having a positive impact on local agricultural, food transformation and trade development.

II. The broader picture

1. *WFP Tajikistan programmes summary*

The World Food Program is the largest humanitarian agency in Tajikistan, serving 750,000 people through its four field offices and a Country Office in Dushanbe. The overall goal of the WFP intervention in Tajikistan is to help vulnerable people recover from shocks, improve household food security and nutrition, preserve/rehabilitate assets, increase food production and promote investment in human capital. WFP engages in Emergency Response by providing food aid to people struck by natural disasters. In addition, WFP's School Feeding programme gives a nourishing, daily hot meal to 360,000 primary school children, their teachers and support staff every day they are in school.

Through Food for Work, WFP provides food assistance as an incentive for communities to undertake small projects to build or rehabilitate family and community assets. In the most difficult times of year, WFP gives a two-month ration of fortified wheat flour, enriched vegetable oil, iodized salt and pulses to keep the most food-insecure families from going hungry. WFP also engages in Health and Nutrition programs, notably supporting TB patients and their families.

2. *WFP's corporate policies and considerations on local food procurement*[*]

As a general policy, other things being equal and considering donor funding criteria, WFP gives preference to suppliers from developing countries. In Tajikistan, WFP already buy all the salt distributed through its projects locally (see below).

Local purchasing follows strict rules within WFP. First, cost effectiveness is considered: the commodity bought locally should be purchased at a competitive and fair price compared to regional or even international prices for the same quantity and quality. Second, a timely delivery of the commodity purchase is essential, due to the environment in which WFP normally operates. Third, as food safety, nutrition and cultural acceptance of a commodity is key to WFP, the food bought by the organization should meet the needs of the population targeted. Although, imported food can be more nutritious, WFP also considers the circumstances where a locally produced commodity is more acceptable to the beneficiaries than an imported commodity. The use of local products also avoids the risk of dependency on non-local foods, which may not be sustainable in the future. These reasons may justify local/regional procurement.

One of WFP's most important concerns is to avoid disrupting the local/regional market, and any potential disadvantages or restrictions must be considered alongside. As a general policy, purchases should only be made in a developing country, or area, when there is a surplus of the commodity, in excess of local requirements, after the amounts required for local consumption and food security have been allowed for. Therefore, procurement in a food deficient country can only be justified, exceptionally, in emergency situations, or other compelling circumstances, unless the deficit is being covered by imports, which may be cheaper than locally produced commodities. Generally, procurement within a country, or area, which has a surplus of the relevant commodity, will have a positive effect on farmers, producers and local traders. However, the affects of the involvement of WFP in the local market should be carefully monitored. Large purchases, particularly if they are unusual in the particular local/regional market, may create unsustainable situations such as an imbalance between supply and demand. This could cause price increases, which could result in hardship to the local population.

3. *Which program could in priority be procured locally?*

The larger scale intervention of WFP in Tajikistan is the School Feeding program, which procures daily meals for about 370,000 children enrolled in approximately 2,000 primary schools (grades 1 to 4). This program is designed as an incentive for primary school enrollment and a safety net for vulnerable families.

The typical daily ration is delivered in the form of a hot meal constituted of a soup made of yellow split peas, fortified vegetable (sunflower or soybean) oil and iodized salt provided by the program and vegetables supplied by the Parents and Teachers Associations (PTAs). The fortified wheat flour provided by WFP is used to prepare traditional bread to accompany this hot meal and often homemade noodles (lapsha) as an alternative to yellow split peas soup, and some traditional doughnuts (ponchiki).

* WFP Food Procurement Manual

The daily ration per child is constituted of 150 grams of fortified wheat flour, 30 grams of pulses (yellow split peas), 15 grams of vegetable oil and 3 grams of iodized salt, which represents 758 Kcal per child per day.
All aggregated (for 2011) this represent 9,238 MT of fortified wheat flour per year, 1,848 MT of pulses, 924 MT of vegetable oil and 185 MT of iodized salt .

At current stage, for school feeding program only the iodized salt is procured locally, all other goods are imported mainly from Kazakhstan (wheat flour) and Russia (wheat flour, yellow split peas and vegetable oil).
One of the main advantages of such targeted program as school feeding is that it does not induce any market price fluctuation through a depression of the local demand: food is provided and consumed at schools, it is expected that it comes as a complement and not a substitute of the food taken at home, and therefore is expected to have no negative impact on households demand for food products on the local market (WFP 2002). As a result, it is very important to ensure that the modalities of procurement of the food distributed as part of this program does not jeopardize this positive effect, and this has to be especially verified for local procurement.

A second WFP program, aimed at delivering food to TB patients, basically procures the same food products, but consists in much smaller quantities delivered. In such program, the procurement channel of the food (local or imported) impacts less on the price than the actual cost of the delivery of small quantity to each beneficiary. For that reason, cash and voucher schemes are often considered as an alternative to direct provision of food for such programs. Although it is not the core topic of the present study, a brief section and recommendations on cash and vouchers alternatives has been added (section VII).

4. Were there, in the near past, any local procurement experiments?

WFP currently successfully procures iodized salt through local producers (WFP 2011), according to WFP quality and safety standards and with a satisfactory regularity of deliveries, at a price significantly lower than the international price while delivering in Tajikistan. A small quantity of sugar was also successfully procured locally in 2009. WFP attempted (WFP 2011) to procure vegetable oil (sunflower oil) locally in 2010, but the attempt was unsatisfactory, especially due to excessive delays in delivery and to non compliance with WFP packaging standards.
Other development partners, interviewed as part of this study have tried in the past to procure part of the food delivered to their beneficiaries through local channels.

AKDN led number of past experiences (1997-1999, in the post conflict setting, for wheat and potatoes) of local procurement in GBAO from which it is possible to take the following lessons. Local actors were motivated by AKDN initiative, and where very proactive in all arrangements. Setting prices and obtaining proper quality were nevertheless an issue. Volumes provided were small and random. Mills for the transformation of wheat were lacking basic infrastructures and commodity (electricity) which resulted in production delays. Nevertheless the assistance was post-conflict oriented i.e. a social assistance measure to producers rather than cost-efficiency targeted. There is a feeling that it was more a producer subsidy approach. As a result, it had consequences on the equilibrium of the local market for agricultural products (especially for potatoes), producers privileging delivery of product to AKDN. As a second (rather negative) result, there were significant tensions when the program had to stop due to shortage of funding and exit of the post-conflict situation. AKDN continues to support agricultural development but through other means (among others value-chain analysis for future market development - potatoes - meat) and broader approaches (micro-lending, rural infrastructure development like irrigation).

Save the Children had prospects for local procurement for their feeding activities in the past, but the main reason given for not going further was the difficulty to purchase relatively large quantities of food products from multiple small scale local producers. As a result Save the Children procured food imported from Kazakhstan and Russia. WFP would face rather similar constraints.

In a 2008-2009 Oxfam (EC funded) project also attempted to procure seed grain and seed potatoes for distribution via agricultural shops and with discounts given to indentified vulnerable households. According to their experience, current local market prices are only available when purchasing small volumes (up to a few tones) and in the "grey market". As a result there was an issue with procurement rules as Oxfam had to follow EC and Oxfam procurement rules of transparency and legality. As a result they were obliged to procure through the formal market where trade was restricted to dealing with a small number of large Tajik companies which act as middlemen for any commodity. This led to Oxfam paying prices that were 10-15% above the actual market prices, which beneficiaries could have access to on local markets. Once more, WFP would face the same barriers as the organization procurement rules do not accommodate with grey areas.

At the time of the study, it is therefore possible to say that except WFP for the local procurement of salt and sugar, there is no other development partner involved in local procurement activities for feeding programs. This is a relevant criterion in order to assess the potential distortion impact of local procurement of wheat and pulses: at this stage we can say that potential additional demand from WFP programs will not add up to other development partners'. On the contrary, having few development partners engaged in local procurement is also a hint that this approach might bear significant challenges.

III. Methodology and scope

1. *Phasing and modalities of the study*

The current assessment took place from December 2010 to March 2011 and consisted in three separated stages. The first stage consisted in secondary data collection and analysis and was especially dedicated to gathering information from past experiences of local procurement for WFP programs in other countries. This phase was especially important in order to develop the set of questions which would serve for the assessment at local level.

The second phase was dedicated to identifying and meeting stakeholders among authorities at the central level (Ministry of Agriculture, Ministry of Education) and development partners (donors and NGOs). The objective of these meetings at republican level was threefold. First, these meetings allowed to gather general information and aggregated official data regarding agricultural production. Secondly they were necessary to identify efforts taking place in developing the capacity of the local food producers and to explore if previous local food procurement initiatives took place in Tajikistan and with what successes/challenges. Finally it was possible through the interaction with local and international counterparts to use their network in order to organize the third phase, dedicated to field visits.

The third phase was indeed dedicated to field visits in DRD, Khatlon Oblast and Sughd Oblast. They primarily consisted in meeting farmers, 34 in total. They were either individual/family farmers or directors/members of larger collective farms and cooperatives. Each of them was asked a complete set of questions on their production capacity, price formation, storage and transformation capacity etc. especially in order to assess their capacity to respond to WFP quality, quantity and logistic requisites. During these field visits it was also possible to visit members of the MoA-RT at district and local administration level, traders and mills directors. In additions visit were organized to schools enrolled in the WFP school feeding program in order to understand how food was prepared, and to assess the potential impact of a change of source at the delivery level.

2. *Choosing criteria to assess*

According to WFP reference guides (WFP, 2005; WFP, 2004), there are several factors giving hints that local procurement is potentially possible in the country.

• there are large stocks in poor storage conditions (e.g. over-stocked granaries, stocks in the open), low stock turnover, and other signs of unmoved stocks;

• traders are absent or there are signs that they are unable to move stocks out of the immediate area (however, if local purchases are in surplus areas of the country, there would be no problem in purchasing food even where traders are operating);

• the market is competitive without distortions due to dominant players;

• WFP (and other possible aid organizations) have a low original market share;

• the price is acceptable – equal to, or below import parity;

A complementary indicator is the alpha value, which shows if local procurement produces more value for the recipient than imported goods.

3. *Interviews and questionnaires*

As a result, the present feasibility assessment relies on a number of interviews (the full list of interviewees is available in annexes) which can be divided in two types:

• At central level, semi-structured interviews aiming at understanding the broad country-wide institutional context, collecting raw aggregated data, learning about initiatives of local food procurements in past feeding programs, and taking contacts for field visits.

• At local level, semi-structured farmers interviews aiming at assessing local capacity to produce and distribute food products corresponding to WFP feeding program needs and quality criteria. These local farmer's interviews were complemented with meetings at a local level with local authorities, implementing NGOs and schools enrolled in the WFP school feeding program, as well as local traders and mills.

The questionnaire dedicated to farmers is divided into seven sections corresponding to the three main criteria presented in the introduction (The detailed questionnaire guiding each farmer's interview is presented in annex A). The first section is dedicated to general information: name, location etc. The second section on physical resources: workforce working on the land, total cultivated surface etc. The third section is dedicated to production capacity, yield and asks question about past harvests and the variety of the production, use of fertilizers and pesticides are also included. The forth section is dedicated to post harvest handling and processing and assesses storage, packaging and distribution capacity. The fifth section is dedicated to commercialization practices and constraints. The sixth section assesses the management capacity, as well as access to a bank account and loans. The seventh section deals with quality and food safety standards and control.

4. *Criteria for the selection of respondents*

Interviews at central level, together with a review of the literature above, allowed us to identify criteria which could potentially create a favorable situation for local procurement.

Main criteria derived were:

- Overall reported surplus production for the goods provided as part of the School Feeding Program or potential substitutes.

- Relative proximity to school enrolled in the school feeding program.

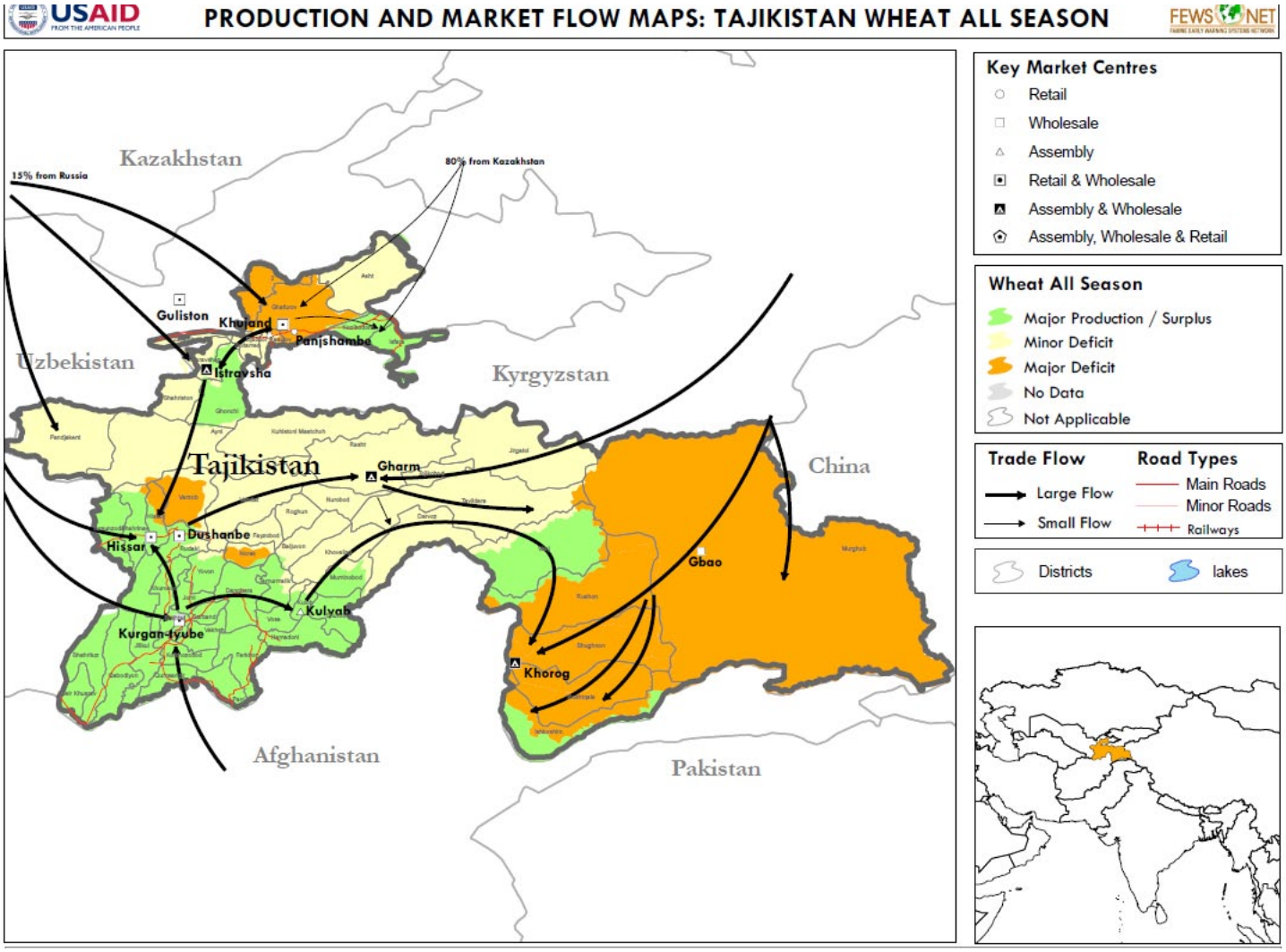
- Management capacity and quality control developed with the support of development partners (farms without donors support, in the same districts, were also polled as a control).

- The population of farmers polled should also as much as possible represent the variety of organizational forms encountered in Tajikistan (individual farmers, members or not of farmers associations, cooperatives, large farms).

Surplus of production

As far as wheat is concerned, information provided by the MoA-RT and the FAO during the early interviews stage enabled the identification of regions with production surpluses. This mostly confirmed existing references:

Figure 1: Wheat surplus and deficit regions, Tajikistan



Existence of surpluses is the main reason why most interviews were conducted in southern Khatlon and west of DRD (predominantly surplus areas) rather than extensively in Sughd. The later is indeed predominantly a deficit Oblast, where we nevertheless conducted a few interviews in surpluses areas such as Isfara and Gonchi.

As for pulses, it was more difficult to identify surplus regions as a systematic market study was not done in the past. As a result, for pulses, republican and local level interviews/data received were the main source of information available in order to determine production areas and as part of them areas with surplus production. Central and western DRD, as well as southern Khatlon Oblast appeared as the main production surplus areas for pulses. Significant production deficit was the main reason for not visiting farmers in GBAO. Data from WFP's survey of traders* confirms that merchants in GBAO mostly supply their food from Dushanbe.

Proximity to schools

Schools enrolled in the WFP school feeding program are scattered throughout the whole territory, with the exception of Dushanbe, oblasts capitals and western districts of the DRD. This criterion was nevertheless given less priority over the surplus production available.

What are the various types of farmers encountered in Tajikistan

There is a great variety of organizational schemes for farming plants in Tajikistan, resulting from the privatization of the large state farms of the Soviet period and of the consecutive regrouping of smaller farms into cooperatives or other farmers organizations with various levels of coordination and pooling of production means.

* http://untj.org/files/library/Tajikistan_Market_Report-April_2011.pdf

According to the State Statistical committee (State Statistical Committee "Agriculture in RT" 2009), agricultural activities in Tajikistan are operated by a total 30,842 individual/family/collective dehkan farms and 2,727 agricultural organizations† (among them are state farms, associations of dehkan farms, production agricultural cooperatives, agricultural plants of private industrial and agro-business firms and others).

From the talks we had at republican level with local organizations and development partners, we organized interviews with 34 farms/farmers organizations of the various types quoted above. Additionally, traders and mills were visited in order to complete the study.

Districts visited included:

Table 1: Interviewees, by oblast, district, type and activity

Oblast	District	Type of Interviewee	Activity
DRD	Shahrinav	large collective dehkan farm	wheat and pulses
		trader	pulses
		milling company	wheat flour
	Hissor	large collective dehkan farm	wheat and wheat seeds
		trader	wheat
	Rudaki	individual/family farm, member of Water Users Associations, USAID supported	wheat, wheat flour and pulses
	Faizabad	large collective farm as well as individual/family farms , members of Village Organizations, AKDN supported	wheat, wheat flour
		Head of Dehkan Farmers Association for Faizabad district	wheat, wheat flour
	Vahdat	large collective farm	wheat, wheat flour and pulses
		Head of Dehkan Farmers Association for Vahdat district	pulses
		milling company	wheat flour
	Dushanbe	traders	wheat, wheat flour and pulses
		milling companies	wheat flour
Khatlon	Danghara	production cooperative	wheat
		Head of Dehkan Farmers Association for Danghara district	wheat and wheat flour
	Kulyab	production cooperative	wheat and wheat seeds
	Shakhritus	production cooperative as well as individual/family farms, members of Water Users Association, USAID supported	wheat
	Kabodijon	large collective farms as well as individual/family farms, members of Water Users Association, USAID supported	wheat
	Kumsangir	large collective farm	wheat
	Pianj	consumer cooperatives, ACTED	pulses
	Farkhor	consumer cooperatives, ACTED	pulses
	Yovon	ATO, oil factory	cotton seeds oil
	Kurgan Teppa	trader	pulses
Sughd	Khujand	traders	wheat
		milling company	wheat flour
	Gonchi	consumer cooperative, CESVI	wheat and wheat flour
	Isfara	production cooperatives	wheat and pulses

† Some of which gathering parts of the individual/family dehkan farms

IV. Wheat flour: a local procurement feasibility assessment

In this section, we will describe the main characteristics (quality, quantity, safety norms and regulation) of the wheat flour procured through imports for the purpose of the WFP programs. We will then assess the potential for local procurement substitution based on 3 criteria: quality and food safety, price and institutional aspects.

1. The current situation: characteristics of the currently imported wheat flour

a) Quality

WFP programs currently import fortified wheat flour (from Kazakhstan and Russia). This wheat flour complies with nutritionals standards set by WFP, fortified with pre-mixes procured by WFP approved suppliers as well as packaged with WFP logo. The wheat flour currently imported for WFP needs from Kazakhstan and Russia is second/first grade wheat flour with the following main characteristic:

- Wet gluten: min 28%
- Humidity: max 14%
- Proteins: min 14.2%
- Ash content of dry matter: max 0.62%
- Fortified with vitamins: B1, B2, B3, folic acid and iron with certified premixes.

b) Price

The average DAP price among all Tajik destinations of the wheat flour imported from Kazakhstan fluctuated from 440USD/MT in December 2010 to 510USD/MT at the end of March 2011 (570USD/MT for Russian wheat flour, which is procured under a tied aid scheme).*

c) Quantity

The total annual quantity of wheat flour to be imported for the purpose of the WFP school feeding program is 9,238 MT (DRD: 976 MT / GBAO 232MT /Khatlon 4,749MT / Sughd 3,282MT) in 2011.

d) Institutional conditions

WFP general rules and regulations

Wheat flour (as other food products imported for WFP feeding programs) is required to fulfill a number of micro-biological standards. These are reached through optimal sanitary norms in the production, storage and handling of products. It is moreover required that this wheat flour is enriched in vitamins and minerals.† This represents an investment for producers, and they also have to purchase premixes from WFP certified suppliers. WFP also edicts norms to be followed by the producer and trader in terms of packaging and branding with WFP logo of food products imported.

Transport cost and Taxes

It is first important to underline that due to the landlocked and mountainous characteristics of the Tajik territory, transportation of all goods including food products from Kazakhstan and Russia bear significant transportation costs, especially to the southern and most eastern and most mountainous parts of the country (DRD, Khatlon). Access to GBAO (the south-easternmost region of the country) is even more complex with no railroad and difficult mountain roads. Most of the imported food products transit through Uzbekistan in order to reach the country, often subject to delays and several exports duties or transit fees along the way. Recent increase of transit fees on the Uzbekistan territory attest of the difficulty and high costs of importing food to Tajikistan. Food purchased by WFP is not subject to the VAT and other relevant taxes. This is an important point especially when comparing with local wheat flour production costs.

---

* Average DAP prices of wheat flour from Kazakhstan were 260 USD/MT in Mid-July 2010 and 255 USD/MT in Mid-April 2010. The price used for this study is 520 USD/MT for wheat flour delivered to WFP warehouse in Dushanbe as of end of March 2011.

† All these norms are described extensively on http://foodquality.wfp.org/FoodSpecifications/tabid/56/Default.aspx

2. First criterion for substitution: quality and safety‡

a) Nutritional quality of local wheat production

Tajik wheat quality is reputed to be random and on average of lower wet gluten content and quality than imported wheat. This is especially due to climatic conditions, to the less frequent or inadequate usage of fertilizers and pesticides, but also to the low priority given to the selection of seeds. As a result it would be extremely difficult for local wheat producers to comply in a stable manner with WFP quality standards.

Another aspect to take into account, revealed during visits to schools where cooks were peculiarly reluctant to see imported wheat potentially replaced by Tajik one, is that the low level/low quality of gluten in Tajik wheat would create issues when it comes to prepare meals, due to physic-chemical properties of gluten which guarantees elasticity strength and shape. It would be more difficult to prepare bread, noodles and doughnuts with lower quality wheat.

b) Safety of the food: fumigation, storage conditions

Storage conditions observed in the warehouses of a large share of wheat farmers are in general below any standard of food safety. Average level of cleanliness of storage facility is poor. Low level of maintenance of buildings causes major problems of storage quality. None of the producers had grain silos for storage, and later interviews with traders and mills representatives confirmed that this type of facility is only possessed by large mills in the country. Pest control is weakly developed, "when there is grain there are mice" is the common statement and awareness on attached sanitary risks seems low, and only 3 of the farms interviewed hired the services of special companies to treat their storage facilities against rodents and fungus. Others treat with their own limited means, using various traps and poisoned wheat grain, cats etc.

When interviewed, directors of mills mixing imported and local grain to produce flour indicated that they had to return up to 1/3 of the local production purchased due not only to bad grain quality, but to bad storage conditions, resulting in the development of fungus etc. As a result they mostly use local wheat as a minor complement to imported wheat to produce wheat flour (this practice is detailed below, in paragraph 4 of the current chapter).

Conclusions on quality: rather negative

- Assessed against the quality criteria, Tajik wheat grain is considered of lower standard as the WFP standards.
- Micro-biological safety may be random, especially due to poor storage conditions at farms level.
- In order to still involve small local producers in local procurement activities it would be necessary to include Tajik wheat only as a complement to imported products in the final wheat flour, and more importantly to find a solution to guarantee safety.

3. Second criterion for substitution: price and quantity

a) What is the current price of the local substitute?

As a first hint, the current retail market price (incl. VAT, as of end March 2011) for locally produced wheat flour is approximately 580USD§ per MT for the first grade wheat flour and, as is, does not look like a cost-efficient substitute for the Kazakh wheat flour currently imported by the WFP, but some options are nevertheless presented below. The following sections underline other obstacles in terms of quality and institutional environment reveled by interviews, but also provide potential solutions based on a study of the value chain for wheat flour in Tajikistan.

b) Quantity and calendar

Total quantity of wheat produced in Tajikistan was 938,435MT in 2009 and 911,821MT in 2010, but these years were exceptional. The average of years 2006-2008 was roughly 650,000MT (State Statistical Committee 2009 and MoA). The coming year seems to bring Tajikistan back to importing more than it produces. The yearly production capacity of the farms visited ranged from 10MT for small individual/family farms to 1,000MT and more for large "col-

‡ For all international purchases of cereal flours, WFP includes fortification with B-complex vitamins, folate and iron as a requirement of the tender. According to WFP's policies, cereal flour can be either fortified in the country of origin or the whole grain cereal may be transported, milled and fortified regionally or locally.
§ For the whole document, the exchange rate is 4.5 somoni per USD, as of end March 2011.

lective" farms. Several studies have found that most of the local production in Tajikistan never reaches the market as producers use it for their own consumption and stocks. The rest of the production, mostly large farms is transformed into wheat flour and sold on the local market. The quality of the local wheat is usually much less than that of the imported Kazak wheat. According to FAO, 15 to 20% of the production is lost or goes to animal feed due to poor quality.

The average wheat consumption per capita in Tajikistan is estimated between at 160kg per capita)¶ in 2010. The total needs in cereals for Tajikistan is closed to 1.5MMT. The supply does not meet the increasing demand for wheat in Tajikistan. Field work for this study showed that in all cases, storage facilities of wheat producers were almost empty. This tends to confirm the fact that wheat is in excess demand in the country, that it is traded efficiently, and that as a result there is very little remaining to be sold by facilities themselves.

There are two crop cycles for wheat in Tajikistan (as reported by agronomists interviewed): the first crop is seeded from mid October to late January and is harvested from late May to mid June. The second crop is seeded from February to early March (mid March in mountainous regions) and is harvest from mid June to end of July. That means that most of the production is available for the market (and procurement) at the lowest prices in July, August and September.

Conclusions on quantity and price: negative

- Current local retail market price for wheat flour is higher than the WFP imported equivalent.
- There is very little excess production of local wheat.

4. Third criterion for substitution: institutional background

a) Quality control and standards

None of the interviewed farmers were able to provide on demand the results of quality tests for their wheat production, for the simple reason that such documents are not required from trader of wheat in Tajikistan. The only exception is grain dedicated to seeding. Only one interviewee was able to provide an official sanitary certificate. As a result, it seems that asking sanitary documents when trading wheat is not common in Tajikistan, and sanitary control from authority seems sporadic. In any case, it is possible to say that the current level of enforcement of sanitary rules/quality tests gives a weak incentive for farmers to improve the handling and storage conditions of their wheat production, which can partly explain the poor hygiene standards observed in most facilities.

b) Processing and packaging capacity on site

Six producers out of the wheat farmers interviewed (two in Faizabad, one in Gonchi, one in Rudaki, one in Vahdat and one in Danghara) had access to their own small milling facility on site. Compliance of the milling equipment to sanitary standards was variable and only satisfactory for the CESVI supported wheat cooperative in Gonchi.

This small on-site milling equipment costs approximately 1,500-2,000 USD (often provided by development partners to cooperatives and farmers associations) and has a maximum daily milling capacity of two tons. The main identified issue is that for such type of mills, installing necessary equipment to produce fortified wheat flour brings an additional cost of 5,000-6,000 USD (full automatization of the process). Quantities of vitamins premixes necessary for such a small production capacity are also very small, as a result, the price to be paid by each facility per kilogram of premix would probably higher than for large producers. Additionally, and in application of WFP standards, premixes are required to be stored in clean conditions and at a temperature not exceeding 25 degrees. In the Tajik weather conditions this requires well maintained, air-conditioned equipment.

On the contrary packaging was less of an issue, costs seemed small, and farmers were aware of the packaging/branding requisite of international organizations. As a result, based on the observed equipment level, and on the basis of the high additional costs attached to fortification, procuring wheat directly from small farms does not seem feasible in most cases. Only the cooperative visited in Gonchi district, presented proper warehouses conditions and potential development partners support to envisage piloting such scheme. This cooperative was also very reactive to WFP requests and provided quality tests of wheat and wheat flour. However some values such as the gluten content,

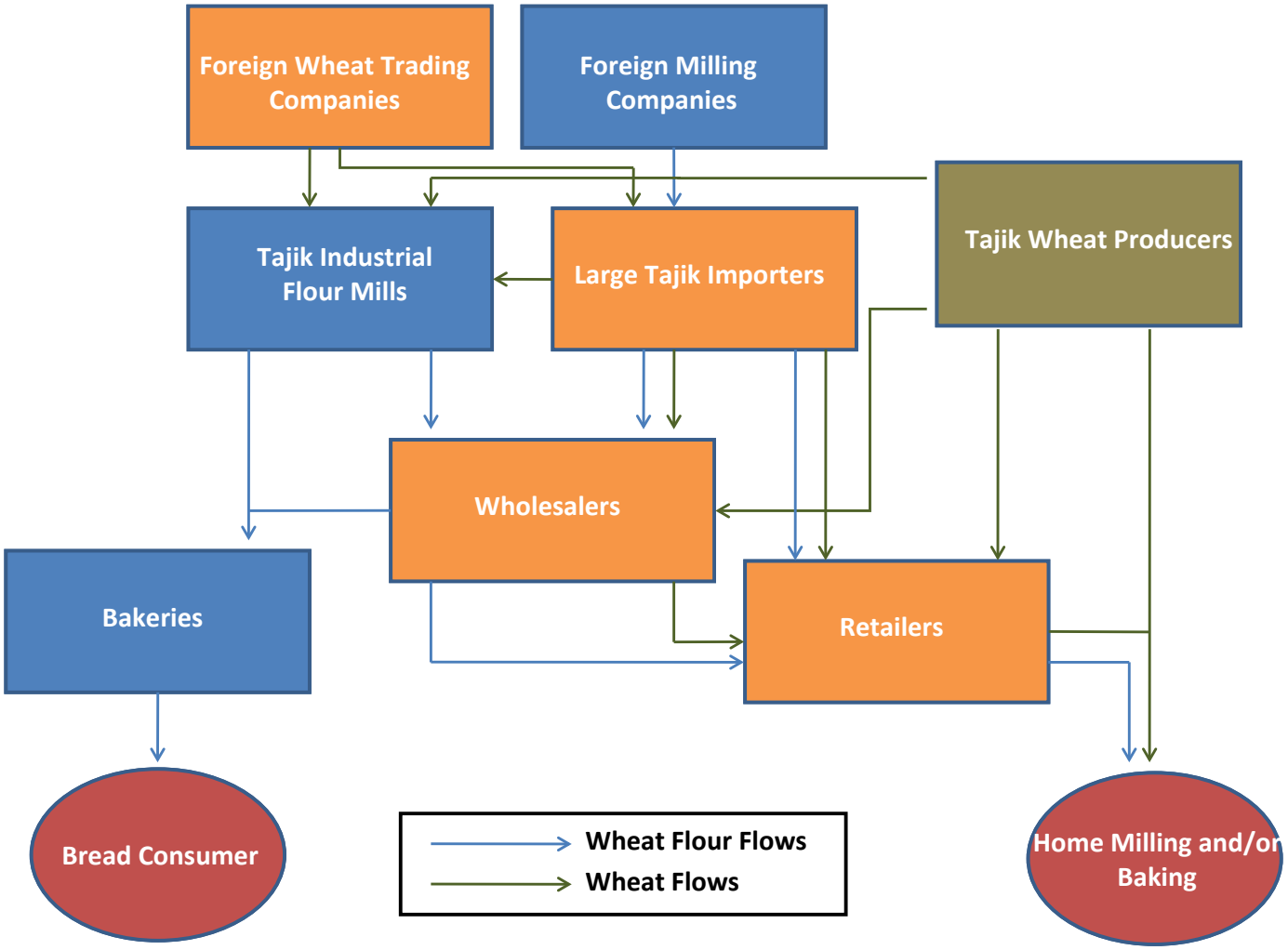
¶ Food Security and Poverty, N°4, 2010, Statistical Agency under President of the Republic of Tajikistan, 2010. http://stat.tj/en/img/08772fa397506a95d49d687fc311bded_1301300904.pdf

or the ash content, were not complying with WFP standard, and further investigation would be needed to consider such small facility as a viable option for local procurement.

It is therefore necessary to have a closer look at the wheat flour value chain in Tajikistan in order to identify from where to procure wheat in order to guarantee proper quality and safety, in a cost efficient manner and for required quantities. This is what is done in the following section.

c) Wheat Flour Value Chain

Figure 2: Value chain for wheat and wheat flour – Tajikistan



Source: Author, based on interviews

The above diagram shows potential interesting options for local procurement. Indeed, the large milling complexes of the country are used to both import Kazakh wheat and use local wheat as well, and additionally, local traders import a significant quantity of wheat flour. This thus leaves us with 3 potential procurement options to study:

- The purchase of flour produced by large local mills, complying with WFP quality norms, for which the producer would be free to mix (or not) a certain proportion of local grains with imported grains to lower the price.
- The importation of grain by WFP, with milling and fortification process taking place in Tajikistan (large mills).
- The purchase of imported fortified wheat flour directly from local traders.

For the first two options it is first necessary to assess the principal characteristics of the large local mills. A mill assessment was realized in 2009 by WFP Tajikistan CO and our observations confirm the fact already presented that some of large Tajik mills would be able to produce wheat flour according to WFP norms: their equipment and storage capacity is rather correct, they have on-site quality control capacity (State Standard Committee certified labs) as well as fortification and packaging facilities (the estimated cost of which would be approximately 5USD/MT). Al-

though most of them do not currently fortify wheat, they are nevertheless very proactive and expressed their willingness to comply with every additional requirement such as additional quality tests, the procurement of pre-mixes from WFP-certified providers and specific WFP branded bags. Most mills are used to produce and deliver large quantities of products and they are in general below their potential maximal production capacity, which could minimize the risks of delays in delivery.

One of the main risks is actually external to the mills themselves: rather frequent and unpredictable electricity shortages in country (observed several times during this study) may have an impact on the ability of the mills to produce ordered quantities within the contractual delays. It is an important issue as timing and assurance of delivery according to needs of programmes is a key element for WFP to decide on local procurement. It is also necessary to analyze how the three options could be compared in terms of cost efficiency.

For the first option, local mills propose a range of different qualities of wheat flour, especially depending on the quantity of local wheat (none or up to 20%) added to imported wheat. The main advantage of this mixing is that local wheat is negotiated by the mills themselves at a price up to 20-30% below the price of imported wheat (based on prices negotiated by the mill with local producers in September/October 2010). It would thus be possible for a mill to propose a percentage of local/imported mix which would minimize the selling price for a given quality (complying to WFP standard). The percentage of the mix would nevertheless be variable depending on the quality of local grain purchased and would therefore require frequent testing. It is notable that the negotiation of the price by the mills would potentially bear risk for local producers: if too low, then the farmers would not be getting a fair price; if too high, it would prompt farmers to sell their own production an then later in the year having to go to the market to cover family needs at a higher price. As a result there is a risk of negative impact, if not for the market at large, at least for the farmers. Moreover, there is a risk for the market itself as local demand exceeds the availability of local wheat flour.

Another advantage of the mixed approach is that for the sake of keeping the average quality of the production high, main mills control the quality of the local grain delivered to them (as we remember, farmers do not). Mills interviewed control grain mainly for wet gluten, humidity and impurities. They also have necessary equipment to control complementary quality sanitary aspects of their production upon Gosstandard request. (As mentioned above, interviewed mills reported that last year, they had to rebuke 1/3 of the quantity delivered to them by local producers after controlling quality).

At the end of March, including VAT, the average wholesale EXW Dushanbe price encountered during the interviews for a flour complying with WFP standards was 125 somoni per 50kg wheat flour bag, which corresponds to 555USD/MT including bagging (559USD/MT after fortification**) from 100% milled Kazakh wheat grain. As a first reference the price proposed by some mills for wheat flour from mixed Kazakh and local wheat†† was up to 10% cheaper, which brings the price to 503 USD/MT including fortification, hence being competitive as compared to current procurement from Kazakhstan, while being still conforming to WFP standards.‡‡

The second option would consist for WFP to import the grain from Kazakhstan and have it milled in Tajikistan. The main potential advantage of this approach, as suggested by some of the interviewees, would come from the decrease in prices coming from the coverage of milling fees by the sales of by-products by the mill itself.

For example, from 1MT of grain imported from Kazakhstan by WFP, the mill would extract 650kg (average factor of 65%) of first grade wheat flour, up to 130kg of second grade wheat flour and up to 200kg of bran.

From this point, interviewed mills proposed different cases:

- Some proposed to take all by-products (bran and second grade flour) as a milling fee. But considering the average market price of these by-products, this would actually correspond to a very high equivalent milling fee, always superior to the 50USD/MT maximal milling fee observed (including packaging).§§ This would thus result for WFP in a very high price for the wheat flour produced, estimated to above 580USD/MT EXW according to author's own

** Estimated fortification cost according to the information provided by WFP official suppliers for vitamin premixes is on average 4 USD/MT.

†† Percentage of mix varied depending on the availability and quality of local wheat between 10% to 20% of local wheat.

‡‡ However, this is just a punctual price reference based on discussions with only few mills and it would be necessary to inquire further over longer period time on the stability of such price offer. As a result this option is not displayed in alpha value calculation below.

§§ Average milling fee observed is 35-40USD/MT including packaging.

calculation.

• The second proposed case would be to pay the milling fee, but then to let the mills sell the by-products and then reimburse the WFP… but although this brings back the price of the wheat produced to comparable levels as for the current imported solution, it seems to bear significant administrative complications.

• The third case would be for the WFP to dispose of the byproducts and find a use for them, once again bringing at least significant administrative complications.

All three cases, although promoted by some of the interviews seems to bring too many administrative complications to be feasible, providing they do not bear enough cost-efficiency advantage. Besides, this option can hardly be considered as local procurement. As result this second option should be excluded (and is not presented in the table below).

The last third option, would be to procure 100% Kazakh/Russian (or other) wheat flour through the available network of Tajik traders. Several traders interviewed currently import the same quality wheat as WFP through the same Kazakh mills, as the result, their product comply with all WFP regulations. Regarding fortification, Tajik traders guaranteed that all their counterparts are equipped to provide this service. Selling price for Kazakh wheat (excluding VAT) is slightly higher than WFP procurement through imports of wheat flour due to the trader margin and administrative costs. At the end of March, excluding VAT, the average wholesale DAP price (to Dushanbe) encountered during the interviews for a first grade flour was 540USD/MT including bagging and fortification as compared to 520USD/MT WFP imported procurement. Hence the only advantage foreseen would come from the flexibility of procurement sources brought by the trader, for instance by procuring Russian wheat flour if more cost-efficient. Also, at several occasions, traders mentioned about their ability to procure the same wheat flour through parallel/informal channels in order to lower the price, nevertheless this possibility is incompatible with WFP procurement rules. Additionally respondents reported several times that Tajik traders are often subject to delays in shipment.

Table 2: Wheat Flour: IPP and alpha values for the first and third options above[¶¶,***,†††,‡‡‡,§§§]

	Price(USD/MT) End of March 2011	Delivery Terms	IPP	Alpha- value
Kazakhstan	520	DAP ex Kazakhstan	520	
Option 1: Tajikistan (Milling Company Maximal price), VAT excluded	470	EXW Dushanbe	-	0.9
Option 2: Tajikistan (Milling Company Maximal price), VAT included	559	EXW Dushanbe		1.08
Option 3: Tajikistan (Imported by local traders), VAT excluded	540	DAP ex Kazakhstan		1.04

Source: author's own calculation from interviewees for Tajik data and WFP for Kazakhstan. Option 1 includes the mix Kazakh/local wheat flour

¶¶ According to WFP, Import Parity Price (IPP) definition is the sum of FOB price at point of export, sea transportation, handling and administrative costs, and land transportation to WFP warehouse in the country of destination. The value indicated (and hereafter), provided by WFP CO for regional purchase from Kazakhstan,and later on for Uzbekisthan and for China as well, covers all relevant costs.

*** Here and hereafter, the Alpha value compares the overall cost for WFP to distribute food to beneficiaries with the local market alue of the same type commodities. The alpha value is calculated by dividing the local market prices (usually retail prices) of similar food items (as if from WFP food basket) by the overall costs to WFP to deliver this food (i.e. free-on-board food costs, ocean freight & insurance, internal transport, storage and handling) An alpha value inferior to 1 means that local procurement is more cost efficient.

††† Kazak wheat flour delivered in DAP ex Kazakhstan is delivered to WFP warehouse in Dushanbe.

‡‡‡ VAT is 18% for wheat flour.

§§§ EXW, Ex-Works, means that the seller has the goods ready for collection at his premises, it hence excludes transportation costs.

The first option is impacted by the ability of WFP to enforce VAT exemption. This actually depends from the effectiveness of the local tax administration and all traders and mills highlighted that they would probably face difficulties (either delays or complete rejection) when asking for a deduction (especially of the VAT on imports of the raw material, i.e. wheat grain). This administrative constraint was even quoted several times by interviewees as a reason for not trying to contract with international organizations under such privileged tax status. Providing such issue is overcome, the first option seems to be an interesting and cost-efficient solution.

As expected, **the local traders' option (option 3) is very close to the current WFP import of wheat flour, and hence presents less interest in terms of cost efficiency.**

d) Market distortion

As mentioned above, observed stocks for wheat were low at local producers' level, which tends to show that the demand for local wheat already exceeds local offer, this comes as a confirmation of the fact that Tajikistan is an importer of wheat (at least 40% of the national consumption is imported).

The above mixed approach only relies on a small supply (up to 20% of the total tonnage) of local wheat to complement wheat imported by the local mills. However this approach may potentially represent stress for the local market of wheat grain and wheat flour as mentioned above. Such approach would therefore imply that WFP local procurement should be designed in order to share the production load between several mills.

Conclusions on institutional conditions: mixed

- Managerial capacity at farms level is overall extremely low. This has an impact on quality control, which cannot comply with WFP standards.
- Large Mills can be a valuable local intermediary in terms of quality control for wheat.
- Hence, if local procurement is to be envisaged, it would have to be organized through mills. Indeed, they could themselves modulate local and imported wheat procurement in order to guaranty higher cost efficiency within quality norms boundaries of WFP.
- However, the administrative environment might be an obstacle when dealing with any local actor, as reflected by the lack of clarity about the enforcement of VAT exemption rules.
- As presented above, the negotiation process between large mills and small producers might have negative effects for the latter (low sell prices etc.).

V. Pulses

In this section, we will start by describing the main characteristics (quality, quantity, safety norms and regulations) of the pulses procured through imports for the purpose of the WFP programs. We will then assess the potential for substitution by local procurement based on 3 criteria: quality and food safety, price and institutional aspects.

1. Current situation of WFP School Feeding Program: specifying the goods to be procured

The main pulse currently procured as part of WFP feeding program is the yellow split peas, imported from Russia.

a) Nutritional quality

The yellow split peas provide 338 Kcal per 100 grams. Lipids: 1.3g, Proteins: 25g, Carbohydrates: 63g.

b) Price

The current average DAP price among all Tajik destinations of yellow split peas imported by WFP from Russia (as of end of March 2011) is 600USD/MT.¶¶¶

c) Quantity

The total annual quantity of pulses (yellow split peas only) needed for the purpose of the WFP school feeding program in 2011 is 1,848MT in 2011 (DRD: 195 MT / GBAO 46MT /Khatlon 950MT / Sughd 656MT).

2. First criterion for substitution: quality

Pulses produced in Tajikistan include: pinto beans/red beans (lubiyo), mung beans (mosh), black eyed beans, lentils and chick peas. Yellow split peas are not produced locally. Lentils were nevertheless very scarcely produced in the farms visited, which confirm the rather low national production of 593MT in 2010 (reported by the State Statistical Committee). As a result lentils were excluded from this feasibility study.

a) Nutritional quality of local production compared to imports

Table 3: Nutritional value and composition of potential local substitutes

Type of pulses	Nutritional value in Kcal per 100grams	Lipids (grams)	Proteins (grams)	Carbohydrates (grams)
Yellow Split Peas	338	1.3	25	63
Pinto Beans	343	1.1	21	64
Mung Beans	347	1.2	23.9	62.6
Black Eyed Beans	336	1.2	21.1	62.3
Chick Peas	364	6	19.3	60

Source: http://www.nal.usda.gov and WFP

Pinto beans, mung beans and black eyed beans are rather close substitutes to yellow split peas in terms of nutritional value. They are also very appreciated by the population and commonly used as the main ingredient of traditional soups in Tajikistan.

Chick peas have higher calorie content, but they are generally used only as a complement to dishes in Tajikistan. Visits to schools have confirmed that chick peas would therefore not be a full substitute for yellow split peas.`

b) Storage conditions: fumigation, storage conditions

Storage quality of pulses greatly varied from one farm to another. It was possible to observe a difference depending on the type of farm. Large former state farms with the larger production capacity generally displayed low standards of

¶¶¶ This is the price for non tied-aid agreement.

hygiene and safety for the storage of pulses (comparable to what was observed for wheat), far from the WFP requisites of dry, ventilated and hygienic storage conditions. Their storage capacity was important but in a rather obsolescent state, especially opened to rodents. Smaller facilities, such as small cooperatives gathering small scale farmers and with a lower production capacity often displayed much better handling and storage conditions. These smaller scale plants also displayed the most willingness and capacity (also due to their low volumes) to improve their storage conditions to comply with WFP standards.

In order to verify our visual observations on storage conditions and their impact on quality of pulses, samples of mung beans were collected during interviews in three locations (trader in Kurgan Teppa selling the production of nearby districts, Pianj cooperatives, Fakhor cooperatives) and tested by State Standard (GosStandard) services. GosStandard norms are almost equivalent to WFP requisites: physical properties of the product were tested (size and integrity of pulses, presence of impurities etc.), as well as sanitary properties (presence of parasites etc.). The results confirmed the great variability of quality observed on the field. Mung beans traded in Kurgan Teppa were overall of the best quality and complied with all standards. Mung beans produced in Pianj were infested by parasites, most certainly due to problems of storage. Mung beans produced in Fakhor presented good sanitary specifications, but a high rate of impurities (stones etc.) compared to the norm.

Conclusions on quality: all together these results were rather optimistic

- Some pulses produced in Tajikistan can be an equivalent substitute to imports in terms of nutritional values,
- Part of the production already complies with international quality and sanitary norms.
- Simple interventions can be designed to improve the overall quality of the production (better storage, better handling/cleaning process).
- Producers interviewed were overall interested and some of them are supported by development partners.

3. Second criterion for substitution: price and quantity available

a) What is the current price of the local substitute?

As far as mung beans are concerned there was a significant variability of prices at producers level (i.e. excluding transport cost) throughout the territory. March 2011 prices ranged from 3.5 somoni per kilogram in Fakhor and Shahrinav/Hissor to 6 somoni per kilogram in Pianj, which corresponds from 780 to 1,040USD/MT EXW depending on facilities. The most frequently met producers price was 4 somoni per kilogram (900USD), which will be used for IPP calculation below. This could show a rather high level of fragmentation of the market, where some farms can be confronted to very different demand levels while only separated by a few dozen kilometres and for some products of comparable quality.

Pinto beans and black eyed beans, while being priced at comparable levels as mung beans (March 2011 wholesale price encountered was on average 5 to 5.5 somoni per kilogram or 1100 to 1220USD/MT EXW), are much less produced. Nevertheless, producers indicated that they would be willing to produce more of these if there was a demand, and there seem to be margin for negotiation of prices. Unless the exceptional use of direct negotiations is granted, open tenders might lead to artificially inflated prices (like in the case of Oxfam cited earlier).

Chick peas are on average in the last years more expensive than the rest of pulses, which certainly explains why traditionally they are used as a complement scarcely used in dishes. Their price therefore excludes them from the list of potential eligible local substitutes for yellow split peas.

It is worth noting that most farmers interviewed reported not being subject to VAT, as a result and for rest of the chapter on pulses, VAT issues will be excluded from the analysis.

Table 4: IPP and alpha values for all pulses as compared to the currently WFP imported pulses[****,††††]

Type of pulses	Price (USD/MT) End of March 2011	Delivery Terms	IPP	Alpha Value
Russian Yellow Split Peas	600	DAP ex Russia	600	-
Tajikistan – Mung Beans	900	EXW		1.5
Tajikistan – Pinto Beans	1100	EXW		1.83
Tajikistan – Black Eyed Beans	1100	EXW		1.83

Sources: author's own calculation from interviewees for Tajik data and WFP for Russia

All pulses produced in Tajikistan are therefore less cost-efficient options than yellow split peas currently imported from Russia by WFP. The closest match in terms of cost-efficiency would be mung beans (alpha value of 1.5). As a complement, it is possible to compare local production to their international exact equivalent.

Table 5: IPP and alpha values for Tajik Mung Beans as compared to international reference prices[‡‡‡‡]

Type of pulses	Price (USD/MT) End of March 2011	Delivery Terms	IPP	Alpha Value
Mung Beans Tajikistan	900	EXW		
Mung Beans Uzbekistan	1304	DAP ex Uzbekistan	1304	0.69
Mung Beans China	1473	DAP ex China	1473	0.61

Sources: author's own calculation from interviewees for Tajik data and WFP/Globalink for other countries

Tajik mung beans appear as a cost efficient solution as compared to Chinese and Uzbek equivalents. Moreover, trade with Uzbekistan is often random due to border tensions.

Table 6: IPP and alpha values for Tajik Pinto Beans as compared to international reference prices

	Price (USD/MT) End of March 2011	Delivery Terms	Sea Transport Mid February 2011	Estimated Port and Handling	Estimated Land Transport Cost to Tajikistan Mid February 2011	IPP	Alpha Value
Pinto beans Tajiksitan	1100	EXW	-	-	-		
Pinto beans Canada	800	FOB Montreal	110	2	190	1102	0.99
Pinto beans USA	840	FOB East cost	110	2	190	1142	0.96

Sources: author's own calculation from interviewees for Tajik data and WFP for other countries

As shown in the table above, Tajik pinto beans appear on par with international equivalents at current market conditions.

**** Average DAP to WFP warehouses for all Tajik destinations

†††† For local productions in this table and hereafter: EXW is a national average

‡‡‡‡ Delivery terms are to Dushanbe's warehouse

e) Quantity and calendar

Quantity

The total quantity of pulses produced in Tajikistan for 2010 was 53,972MT (State Statistical Committee 2009). Imports mainly concerned dry peas, split or not, and were 7,298 tons in 2008 according to FAOSTAT (most recent data available). There were no significant and unified data for exports of pulses selected for this study.

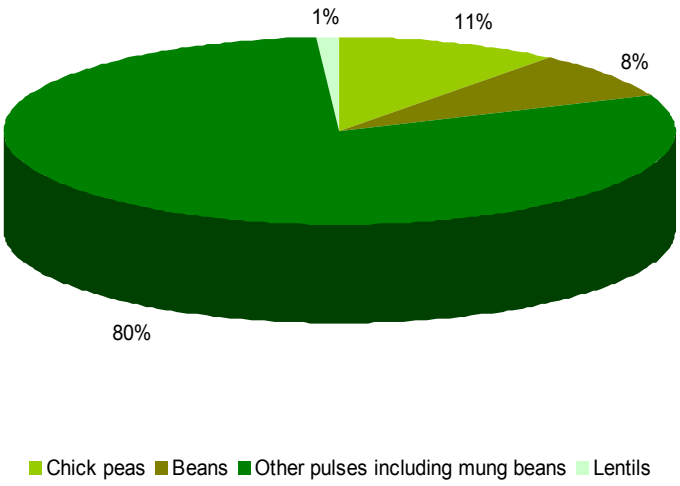
Table 7: Annual production of main pulses, MT

Type of pulses	2004	2005	2006	2007	2008	2009	2010
Chick peas	2,456	8,844	4,156	5,239	3,804	4,841	5,884
Beans	1,935	3,181	3,368	2,535	5,247	3,775	4,359
Other pulses including mung beans	25,958	18,040	11,146	16,364	24,221	35,475	43,136
Lentils	366	396	395	514	410	496	593
Total	**30,715**	**30,461**	**19,065**	**24,652**	**33,682**	**44,587**	**53,972**

Source: State Statistical Committee 2009 and MoA

According to the field visits, there were surpluses of production in the following districts: Isfara in Sughd; Vaksh, Bokhtar, Hamadoni, Pianj and Farkhor (for the last two years) in Khatlon; Hissor and Vakhdat in DRD.

Figure 3: Repartition of local pulses production by type for 2010



Source: State Statistical Committee 2009 and MoA. Import data for 2010 were not available

Quantities produced in 2010 for mung beans by each farm visited ranged from 3MT per year for small cooperatives in Fakhor, to 15MT per cooperative in Pianj and to 30-50 MT per large collective farm in Vahdat or Hissor/ Shahrinav. Smaller farms gathered in associations/cooperatives can nevertheless easily arrange the gathering of their production, and cover yearly needs in pulses of the WFP School Feeding Program for the schools of large rayon. For instance ACTED-supported cooperatives produce together more than 150MT of pulses per year in Pianj (out of a total district production of 2,400MT according to local MoA authorities), see table below. As a comparison, needs of the school feeding program for nearby schools in Pianj, Kumsangir and Rumi also amount for 150MT altogether. Quantities of pinto beans and black eyed beans produced in 2010 by Pianj cooperatives range from 2 to 5MT per cooperative for a total of 30MT per year.

Respondents highlighted that they would have opportunities for increasing and diversifying production, providing a number of institutional constraints are eased (as developed in the institutional issues paragraph below).

Table 8: Production and utilisation of pulses for ACTED-supported cooperatives in Pianj

Type of pulses	Area cultivated in 2010 (Ha)	Production for 2010 (MT)	Self-consumed and seeds 2010 (MT)	Commercialized 2010 (MT)	Planned area cultivated in 2011 (Ha)
Mung beans	100	106.3	19.1	87.2	157 (+57%)
Pinto beans	9.5	10.2	0.9	9.3	18.5 (+95%)
Black eyed beans	20	25.6	4.6	21	46 (+130%)
Chick peas	24	23.45	4.23	19.22	37 (+54%)

Source: field communications

Respondents highlighted that they would have opportunities for increasing and diversifying production, providing a number of institutional constraints are eased (as developed in the institutional issues paragraph below).

Seasonality

Respondents highlighted that pulses are of optimal quality up to two/ three months after the harvest, especially due to their storage conditions. As a result, purchase, packaging and dispatching in WFP warehouses should be organized early after the harvest.

Seasonality for mung beans (field communication, interviews of agronomists and MoA-RT):
There are two crops of mung beans per year. The main crop is seeded from March to April and harvested from June to July. The secondary crop is seeded from late May to mid July and harvested from the end of September to October. Optimal quality: from June to December.

Seasonality for pinto beans and black eyed beans (field communication, interviews of agronomists and MoA-RT):
There is mostly one crop, seeded from end of March to end of April and harvested from mid July to End of August/ early September. (Sometimes there is second crop, seeded in June and harvested from August to October). Optimal quality: from August to December.

Conclusions on quantity and price: results are mixed

- Prices of pulses available in Tajikistan are currently higher that the current equivalent imported for WFP use.
- It is however notable that mung means were generally reported as much more appreciated by beneficiaries than yellow split peas.
- Also, proximity of production sites from schools could significantly reduce transport and storage costs for the organization.
- Quantities produced in southern Khatlon should ne sufficient to procure all the schools of nearby districts, which could open the way to pilot experiments, for instance with ACTED. The conditionality of the increase of production by local farmers should be estimated when pilot is further investigates.

4. Third criterion for substitution: Institutional issues

a) Management

It is worth noting that large and small-scale farms did not historically benefit from the same type of support from development partners. While large farms reported having received seeds mostly, small farms received assistance in the form of infrastructures and equipment, technical and managerial advices etc. which may explain the relative better conditions of small-scale farms. As a result, most small-scale farmers grouped in associations and cooperatives and supported by development partners received managerial training and own a bank account. They also have access in some cases to bank loans, as larger farms do. Having had the occasion to already cooperate with international partners, they were also very much willing to adapt their production to WFP program needs, and to increase it, but the main institutional obstacle quoted by respondents to an increase of production was the initial investment. They highlighted that they would either need a guarantee on future commands (although this is not possible according to WFP regulation) in order to be able to contract a loan, or an advance on command prior to the seeding season, in

order to be able to scale up their production. The main limiting factor was additional workforce to be hired, as most of these small scale farms are family-owned businesses.

It was possible to observe some notable innovations in some small scale producers which had been trained in marketing techniques and management. Efforts made by ACTED-supported pulses cooperatives in terms of packaging were striking. Although such a packaging is not a requirement of WFP programs, it demonstrates the capacity of the cooperative to tailor their packaging according to WFP standards.

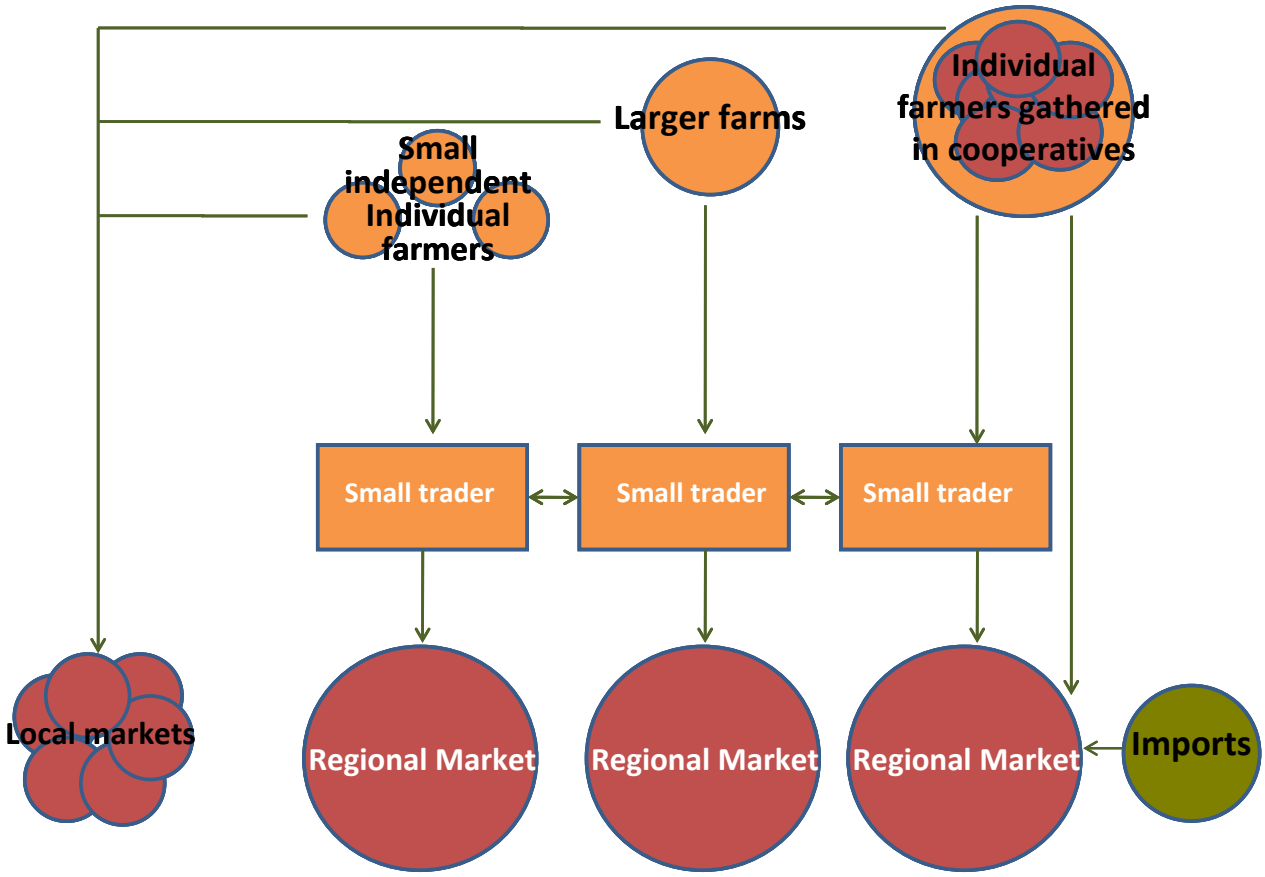
Most interviewees reported high production costs attached to the current level and modalities of production of pulses (mostly due to the requirements in terms of fertilizers, irrigation etc.). Their main concern regarding an increase of the production was therefore related to the access to financial resources in order to kick-start a scale-up of the culture of pulses. As a result, many farmers inquired on the existence of pre-harvest orders schemes which they could use to secure bank loans, or pre-harvest advances.

b) Market organization

Due to the rather small quantities produced per facilities (as depicted above), the local market for pulses seems to be under-developed, and the distribution to local and national markets mostly organised in an informal manner.

Our field visits show that there are no large traders for locally produced pulses in Tajikistan. The main distribution channels are either self-distribution through self owned or rented trucks or small informal traders: dehkan farms themselves collect all production of several producers to fill a truck which then sells the shipment in Dushanbe or other main cities. Small traders play a similar collection function. Small traders also often share products between them in order to cover a greater number of regional level markets. Actually at several occasion, various actors (including wheat flours mills representatives), indicated that they could spontaneously organize the provision of pulses as a "bonus" to a potential deal with WFP, which vividly depicts the level of disorganization of the local market for pulses. Dehkan farms associations at district levels also spontaneously proposed to collect pulses from their members for the needs of a local procurement program, but as soon as administrative requirements were mentioned (tender mechanism, bank transfers etc.) they lost interest.

Figure 4: Distribution channels for locally-produced pulses – Tajikistan



Source: Author, from traders and farmers interviews

At every point of these distribution channels commodities and cash flows are informal, everything is based on trust. Almost none of the traders interviewed have bills or bank accounts (contrary to cooperatives and dehkans farms). Due to small quantities exchanged, traders' bargaining power is low and their profit margin is rather small (traders met in Green bazaar in Dushanbe were reporting 0.30 somoni of net profit for a purchase price of 4.5 somoni per kilo).

As a result, as far as pulses are concerned, it would not be interesting due to high transaction costs to mobilize a network of intermediaries as it is the case for wheat flour. The most feasible solution would be to rely on a well organized network of small producers willing to pool production and potentially increase it in order to fulfil the needs of the nearby schools.

As for the risk of local market distortions it appears to be limited. Of course, producers use some of their harvest for their own needs. Nevertheless most of them reached a level of production that enabled commercialization, and are currently in a phase of scaling-up their pulses production which will clearly require new distribution channels. With the support of development partners they developed management and planning tools which represents a guarantee in their ability to preserve a balance between self consumption and commercialization. Nevertheless, in the event when a pilot experiment of local procurement would be envisaged, it would certainly be necessary to complement it with close monitoring and additional managerial capacity building.

Another important point when assessing if WFP programs would disturb the local market is to assess if whether or not pulses are consumed locally. It actually seems that a little share is dedicated to local markets. Most producers in South Khatlon were actually shipping the bulk of their production to Kurgan Teppa or Dushanbe.

Although they were not able to provide precise quantities, several interviewees reported some exports to India, especially in Pianj, which might explain the significant difference in producers prices observed between this district and others. This trend was confirmed by specialists from the Agrarian University, which may explain the willingness of farmers to increase their production for the coming years.

Finally, as previously noted, the total produced quantity is growing and small scale farms are willing to produce more diversified products to meet costumers' needs. Pulses, being mostly a second crop (i.e. being replanted on the same plots after the harvest of a first crop), offer a significant level of flexibility. As result, it seems feasible to design local procurement schemes based on provision of small quantities of pulses from local producers to nearby schools without creating much tension on local markets.

Conclusions on institutional issues: results are rather positive

- A number of producers of pulses benefited from assistance from development partners in raising their managerial and marketing capacity.
- Several of them reported their intention to increase their production of pulses in the coming years, independently from the interest of WFP for local procurement.
- They are willing to improve storage, handling and packaging processes in order to comply with sanitary and quality norms. Simple solutions are available and could be supported by development partners.
- Scaling-up the production might nevertheless imply for the producers an increased need to access financial resources for which they need guarantees.
- Risks of local market distortions seem minimal.
- Altogether the institutional context seem to indicate that piloting of a local procurement scheme for school feeding program and for pulses at the level of several district seems feasible.
- Nevertheless access to external resources to scale up the production will be an issue for most producers and WFP regulations do not provide any solution. This would imply support from other development partners.

VI. Vegetable oil: a case study

The purpose of this short section is to provide a punctual case study (only one local producer was contacted, as vegetable oil was included in the study at the very last stage) on an additional product procured as part of WFP food basket in Tajikistan: vegetable oil. As for other products we will study quality, quantity and institutional conditions, although this is a case study which will need wider investigations to obtain a significant picture of the local production.

1. The current situation: characteristics of the currently imported vegetable oil

Vegetable oil procured as part of WFP feeding programs in Tajikistan is currently imported from a number of foreign countries (Russian Federation, Estonia, and Argentina). Imported oil is most frequently sunflower oil or soybean oil. A small quantity of the distributed oil was procured in the past through a local trader, but was actually imported. As a result there was no previous attempt of "genuine" local procurement in Tajikistan.

a) Quality

Minimal nutritional value of the oil procured through WFP is supposed to be at least equal to 885Kcal/100g. It also needs to be reinforced in vitamins A and D, through the addition of pre-mixes obtain through a WFP certified provider. There are also a number of norms on the maximal content in impurities, heavy metals and hydrocarbures (from pesticides residues).*

b) Price

The average DAP price among all Tajik destinations of sunflower oil imported from Russia (tied-aid agreement) for WFP programs is currently 2,400USD/MT , the current price of soybean oil imported from Argentina is 1,840USD DAP, the later will hence be used as the most affordable equivalent for the price comparison later on.

2. A case study: the ATO cotton-seed oil factory of Yovon

The locally produced substitute vegetable oil available in Tajikistan is cotton-seed oil. It is widely used in local food, and is included in the list of authorized vegetable oils for WFP procurement. We contacted the ATO cotton oil factory of Yovon District (about40 km from Dushanbe), as a first attempt to assess a potential substitution of imported vegetable oil by locally produced oil.

a) Quality

The nutritional quality of cotton-seed oil presented by the ATO factory conforms to WFP standards (884Kcal/100g).

As far as compliance to quality and sanitary norms are concerned, the produced cotton-seed oil complies with GosStandard requirements (Certificate is provided). Nevertheless, additional tests might be necessary to verify full compliance with WFP standards, especially regarding heavy metals and hydrocarbures.

ATO management also indicated their willingness to adapt their equipment to allow fortification of cotton-seeds oil.

As far as the packaging is concerned, it is done on site, and the facility would also be able to comply with WFP packaging and branding norms.

b) Price and quantity

The price proposed by ATO factory is 1,780USD/MT EXW including VAT and 1,508/MT EXW excluding VAT (see table below for IPP and alpha value), with the possibility to ship the production with limited additional costs directly to local authorities' warehouses provided to WFP, which makes the locally produced cotton-seed oil a cost-efficient alternative to the imported equivalents. This price doesn't include the cost of fortification (which is approximately 2 USD/tons as reported by WFP procurement department) but includes the packaging (conform to WFP standards).

The maximal annual capacity of the plant is 2,000MT and the facility does not expect any excess production capacity for the near future. This means that in order to supply the needs of the WFP school feeding alone (about 1,000MT per year), it would be necessary to rely on several production plants of such type, as envisaged later on.

* These norms are described extensively on http://foodquality.wfp.org/FoodSpecifications/tabid/56/Default.aspx

Table 9: IPP and alpha value for Tajik cotton seed oil†

	Price (USD/MT) Mid March 2011	Delivery Terms Mid February 2011	Sea Transport	Estimated Port and Handling	Estimated Land Transport Cost to Tajikistan (February 2011)	IPP	Alpha Value
Tajikistan cotton oil (excluding VAT)	1,508.5	EXW Yovon	-	-	-	1,508.5	
Turkey (soybean)	1,650	FOB Izmir	57	2	190	1,899	0.79
Europe (soybean)	1,630	FOB France	65	2	190	1,887	0.80
Canada (soybean)	1,780	FOB Montreal	110	2	190	2,082	0.72
Argentina (soybean)	1,635	FOB Buenos Aires	110	2	190	1,937	0.78
Estonia (soybean)	1,840	DAP ex Estonia	-	-	-	1,840	0.82

Source: Author's calculation from ATO for locally produced oil and WFP for other countries

c) Institutional background

The factory was created in 2001 and massively rehabilitated in 2010, with the financial support (loan) of EBRD, with the objective to increase the production capacity and to develop the distribution network. As a result, the equipment of the facility seemed up to modern standards, so did its hygiene.

The managerial capacity seemed good and all sanitary and quality certificates were available and shared voluntarily by the management.

Marketing is operated through a dedicated distribution company, which sells products mostly through Khatlon markets. At current stage, the factory does not have any difficulties in selling its production.

As far as VAT exemption condition is concerned, the constraints may be the same as for wheat flour, described in previous chapters.

It is necessary to highlight that risks of market distortion through WFP potential local procurement are real. As reported by State Unitary Enterprise "Hurokvori" the current total annual demand for vegetable oil estimated at about 60,000MT is currently satisfied through 15,000MT of local production (mostly small semi-artisanal plants) and 45,000MT imported. As a result, about 1,000MT of WFP needs procured through several producers could still have a real impact on the local market, especially if we take into account that part of the local oil does not conform to WFP's quality standards, and that only a limited number of plants would be in a position to meet WFP procurement needs. As a consequence, it would be necessary to conduct further assessment of local cotton seed oil producers (including for example the "Ravgani Hissor" in Hissor, "Ravgan" in Khujand, "Ravgani Todjik" and "IriAnna" in Dushanbe).

Conclusions on quantity and price: results are rather positive on price, yet problematic on quantity

- A local substitute for WFP imported oil exists, and formally presents the same nutritional and safety properties.
- This substitute would represent a cost efficient solution as compared to imports.
- Nevertheless, it would be necessary to deepen investigations on quality of the local production by checking further the compliance to WFP standards, as well as more generally on the properties of cotton-seed oil as compared to other vegetable oils.
- Further assessment is necessary to understand the potential risk of market distortion.
- Further assessment of the local oil market could provide alternative local producers, closer to WFP school feeding program recipients.

† Average DAP to WFP warehouses for all Tajik destinations.

VII. An update on prospects of cash and voucher schemes in Tajikistan

1. *Background and justification*

In 2008, WFP conducted an assessment of the feasibility of cash/voucher options in Tajikistan. Although the report pointed out that there is limited experience in-country on how to run and implement cash and voucher (C&V) programs, it also concluded, based in part on successes from other partners, that the local context allowed for a cost-efficient cash programs in Tajikistan.

Nonetheless, the study did not look at the feasibility of introducing vouchers-based programs in the country, at its added-value and at how it compares to cash in Tajikistan. This is why the present research looks more in depth at vouchers, keeping in mind that cash is already a valid option for WFP Tajikistan.

Using the results of the recent market and traders' survey, the present study looks at the possibility for WFP of implementing food vouchers programs within its tuberculosis program.‡ No food voucher projects were recently tested in Tajikistan but some partners implemented other types of vouchers for, for example, agricultural inputs vouchers. The modalities being different (partners, objectives, costs) these examples were not found useful for this review.

Since 2008, WFP has increased its experience and knowledge on C&V programs and issued new manuals and guidance§ to estimate how feasible and appropriate such programs are. The cost-efficiency of implementing Cash & Vouchers (C&V) in Tajikistan needed to be updated. The table below shows that comparing the cost of importing food for TB patients and the local market value of the ration distributed are similar. These calculations do not take into consideration the fact that when beneficiaries receive food assistance, there is an additional cost to bring the food aid home.

	Food item's share in total food basket weight (in %)	C&V	Food			
		Local market price – April 2011	WFP FOB cost	WFP external transport costs	Local transport costs	total
		(kilos)	(tons)			
Wheat Flour	87%	0.64	430	65	218.91	713.91
Pulses	9%	1.82	470	65	218.91	753.91
Vegetable Oil	3%	2.74	1590	120	218.91	1928.91
Iodized Salt	1%	0.20	72	200	89.42	361.42
Cost of food basket to WFP (per ton)		$807.90	$752.40			
Alpha value*		1.07376				

* if alpha value less than 1, C&V more cost efficient implementation modality

Vouchers are assistance to persons or households in the form of paper or electronic entitlements which can be exchanged in shops for specific types and/or quantities of food. According to the WFP traders' survey¶, vouchers in Tajikistan present the advantage that such a system was used during Soviet times with shops when food was subsidized. Therefore, traders report, if implemented, it would not be a new for them and their customers, reducing the need for sensitisation.

There are two main types of vouchers: commodity vouchers (exchanged for fixed quantities of foods) and cash vouchers (exchanged for a choice of specified food items with equivalent cash value). The table below show the advantages and disadvantages of both types in Tajikistan using results of the present research and of the WFP traders and shop-keepers' survey and compare them to cash transfers.

‡ The WFP TB project is a safety-net based program giving a food incentive to TB patients involved in the DOTS program to complete their treatment and return home with a food ration for them and their families.
§ Cash and Voucher manual, WFP, December 2009. http://www.wfp.org/cash-and-vouchers
¶ http://untj.org/files/library/Tajikistan_Market_Report-April_2011.pdf

Cash Vouchers		Commodity Vouchers		Cash transfer	
Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages
- Meet the objectives of the project - Beneficiaries can choose from list of products - More flexible - Less storage of food needed - Adapted to both urban and rural - Low transportation costs	- Less adapted to price fluctuations - Potential for fraud - More financial training needed for partners	- Meet the objectives of the project - More adapted to price changes - More adapted to urban areas - Easier bookkeeping for shops as set quantities	- Overhead costs for set-up - Logistically more expensive and cumbersome due to project size - Less adaptive to beneficiaries' changing needs - Potential for fraud - Storage issues for local shops - High prices makes it too expensive to implement	- Meet the objectives of the project - No storage needed - More flexible for shops and beneficiaries - No transportation costs - Less stigma attached to cash	- Potential for fraud - Need strong partnership with bank - Need for financial training for partners (banks) - Need to train beneficiaries on use of cash

The table suggests that commodity vouchers would not be the best option in the local context. This is true if commodities available would include the same as WFP currently provides in its traditional food basket (wheat flour, vegetable oil, pulses and salt). The traders' survey shows that most shops declare having these commodities in shop at any time of year or could increase their stocks if need be. Nonetheless, the quality of the wheat flour sold often does not meet WFP's standards and is not available all year long. Therefore, commodity vouchers could be envisaged if wheat flour was to be taken out of the list of food the vouchers allows to buy.

The fact that a vast majority of the shopkeepers indicated giving credit to their customers and that it represented a substantial proportion of their sales leads to believe that sales guaranteed by vouchers would be of great interest to the shops even if they had to travel monthly to redeem the vouchers at a local bank branch.

The 2008 C&V study highlighted the risks and contingencies linked to using cash instead of food. The main risks associated with any type of vouchers are similar to the implementation of cash-based projects. The most important risks seem to be the lack of quality of the foods sold in local shops and price fluctuation.** The value of the voucher may vary greatly during the time of the project and WFP will need to adapt to this reality.††

Another more internal consideration not taken into account in the table above is the capacity the WFP country office in Tajikistan needs to have to design, implement and monitor such a program. This should be clearly evaluated once the size of the pilot is decided and once/ if any pilot is to be extended. The capacity of the Government and local partners to sustain/ extend the pilot is also to be clearly stated.

Conclusions on feasibility of vouchers-based program: cash transfers still seems more appropriate

- Cash transfers would be easier to implement in the short-term and more cost-efficent.
- Commodity vouchers would be too cumbersome and logistically difficult to implement, notably due to the lack of storage, lack of partners and the increasedcost of food.
- Cash vouchers would be more suitable for a pilot if locally reliable partners can be found.

2) Recommendations for the implementation of C&V pilot

As mentioned above, there is potential for implementing cash and voucher projects in Tajikistan. Here are some recommendations based on the recent traders' survey conducted by WFP to take into consideration before starting a pilot:

** A complete risk analysis is detailed in Annex D.

†† Several options exist among which: set a maximum limit for acceptable price increases or agree with partners on a fixed price for fixed period. Monitoring food prices is essential during the implementation of the voucher-based project.

Cash transfers

• Cash-transfer programs could be piloted in priority remote areas (e.g. Shurobod, Muminobod and Vose districts) where shops are not developed enough for introducing vouchers. The cash transfers could be done in the form of bank transfers as proposed by the 2008 feasibility study. Beneficiaries in remote areas would then meet their own food needs in the marketplace where traders confirmed they can find the required food all year long.

• As the 2008 report states, consultations were already carried out with Amonatbonk, the largest state bank in the country, with 506 outlets that cover even the most remote areas. Amonatbonk is the disbursing bank for state pensions (children's allowance, old age pensions, disability payments, etc). The pilot could cover beneficiaries currently receiving support under the WFP TB project or Food-for-Work projects (turning it into a Cash-for-Work project).

• Literature shows that beneficiaries often have limited choice of shops where to buy the food (especially for cash in remote areas) concentrating therefore the market impact on specific traders, often the only one available. The impact could also be positive for the local market and local economy allowing shops to have more reliable and regular cash inflow, leading to better investment in their business. In these areas, further research is needed to assess the use of cash transfers.

• Research in Tajikistan shows that women are often left aside when it comes to handling money in the household, but at the same time, they are the ones making the selection of food to be bought in the market. In the case of TB patients, only 36% of the patients are women. The active involvement of women, especially spouses of beneficiaries, should be a priority. This would limit the misuse of the entitlement. In other contexts, it was found that women had issues understanding cash (and vouchers) projects though. A thorough sensitisation is needed in Tajikistan as well.

• Services available in Tajikistan show that cash transfers through mobile phones are a possibility. The initial costs of such a modality would be high but would reduce other costs in the long-term. A partnership with a local phone company such as MLT and TCELL (already working with other international agencies) could be possible. A more in-depth analysis of the market of mobile phone providers is nonetheless needed.

Cash vouchers

• Cash vouchers should be considered for a pilot within the project assisting TB patients in Tajikistan. Cash vouchers would be consistent with the objectives of the TB project. Instead of receiving a take-home ration at the end of their treatment for them and their family, the TB patient would receive cash vouchers to be used in a local shop.

• If cash vouchers are to be piloted, focus should be put on urban areas (e.g. Dushanbe, Khujand, Kulob, Chakolvsk, Konibodom, Mastcho, Isfara, Rudaki) where markets are functional and a variety of food is available. Nonetheless, the market analysis shows that there no available chain of shops with which WFP could partner and separate agreements should be done with each individual shop, rendering the pilot cumbersome logistically and administratively.

• The traders' survey shows that there are nonetheless differences in seasons when it comes to the availability of products. Winter is the most critical time for beneficiaries to have access to foods but also the time at which traders mention have difficulties accessing products such as vegetable or cotton oil, local wheat flour, fruits and vegetables. In addition, prices also fluctuate depending on the seasons which would have an impact on food access for the beneficiaries and as a result on their diversity of their diet. Food prices are at their lowest after the harvest in July, August, September and October.

• Data shows that the products offered by shops would not meet WFP standards and the logistics associated with monitoring the quality of food, the conditions of storage and even the processes to redeem the voucher would be cumbersome.

• Options for voucher modalities are limited in Tajikistan as electronic vouchers would not be an option. The traders' survey show that all traders report electricity problem during the year and so few have basic equipments such as a fridge or electronic weighting scales, that the equipment for electronic cards is out of question. The only alternative is paper vouchers.

Other considerations

More research is needed to understand the capacity of the local shops, local partners, local banks and local government to sustain this approach. Also, in the design phase of the pilot, WFP should evaluate the risks and types of fraudulent behaviours threatening the project and ensure that post-implementation surveys deal with this aspect. Finally, countries in the region (Pakistan and Georgia) have successfully implemented vouchers/stamps/coupons programs and their experience would be valuable in the design of the pilot in Tajikistan.

Conclusion and recommendations

Field studies offered a mix picture as far as prospects of local procurement are concerned. Especially, the modalities for procuring fortified wheat flour, pulses and oil would greatly differ.

Regarding **wheat flour** the problems are both qualitative and quantitative. Most of local wheat does not comply with WFP quality standards. Local small wheat producers indeed appeared to have little managerial capacity and weak access to financial means to ensure stable quality, safety and proper transformation and packaging of their products. As a result, local wheat can only be considered as a valid choice if combined in a small proportion with imported wheat from Kazakhstan or Russia, while the produced fortified wheat flour would still comply with all WFP standards. Local production is also still limited to around 50-60% of total needs and used mostly for own consumption.

This in turn implies the recourse to large mills able to gather wheat from local and imported sources and to fortify the wheat. These large mills also appear to be the only structure able to consistently conduct the required quality and safety tests required for wheat grain then flour, and to comply with transformation and packaging norms.
In terms of costs, the solution consisting on relying on local mills production is viable, and incorporating a minimal share of local wheat to the final product potentially makes this solution even more competitive. Nevertheless, dealing with large mills* also bears difficulties, especially related to the enforcement of the VAT exemption of WFP orders.

Conclusion 1: Local mills processing imported wheat grain, either or not complemented by a small share of local wheat grain have a triple advantage: i) it stimulates additional production from local actors, ii) it relies on an existing value chain and iii) it potentially improves the value chain by raising quality standards throughout. It is also cost efficient for the program, whether 100% imported wheat is used, or a mix of local and imported wheat, providing VAT exemption is enforced by WFP.

Regarding **pulses**, the situation was quite the opposite. Several locally produced substitutes have been identified for the currently imported yellow split peas. In terms of nutritional standards, these substitutes have comparable nutritional quality.

As for the compliance to food safety standards, quality control, managerial and transformation/packaging capacity, it seems from the sample of visited facilities that small-scale producers would be able to comply better than larger ones. This is due to the fact that these small producers benefitted from the technical assistance of several development partners in order to enhance their managerial and marketing capacity over recent years.

In terms of price, local substitutes nevertheless tend to be subject to significant price variations and they are currently more expensive than the imported yellow split peas. There may be however room for negotiation and for increasing local production to accommodate WFP needs. The main constraint for farmers would be access to financial resources in order to scale up current production.

Conclusion 2: Local substitutes for imported pulses exist. There is a local potential for the procurement of pulses complying with all quality, safety and packaging standards. However current price conditions are not competitive if compared to pulses currently imported by WFP. It is however potentially possible to design a pilot to procure pulses from local producers located near WFP-assisted schools. This could be done in partnership with development partners currently involved in supporting small farmers in the development of their managerial and marketing capacity.

Both solutions depicted above have limited impact on local markets.

In the case of local procurement of **wheat** grain mixed with imported grain, the value chain already exist, and providing the scheme relies on a several mills scattered throughout the territory, the impact of procuring up to 20% of the total needs of the WFP school feeding program on local wheat demand and supply could be minimal if the intervention is properly designed. As for **pulses**, some capacity for additional production exist at producers level and the proposed initial pilot-based, small scale experiment would therefore have minimal impact on local prices for pulses.

* As compared to dealing with individual and some groups of farmers, which do not pay VAT.

Conclusion 3: In both cases, it is possible to design schemes which have no or minimal market distortion impact, especially if adapting procurement to small quantities provided by several local suppliers, although this may come at additional costs for WFP.

Conclusion 4: Cottonseed oil seems to be the most convenient product for local procurement. The IPP calculations show it as the best current cost efficient option. The WFP quality standards issue remains to be verified as well as additional local producers to be examined in order to split necessary quantity among them. The oil factory interviewed for the presented case-study only represents a small share of the national production and other local producers may exist with similar capacity to fulfill WFP programs' needs while not disturbing the market. As a result quality and availability are to be confirmed.

On a final note, **it is therefore possible to conduct small-scale pilots of local procurement in Tajikistan**, which would have both an interest for the World Food Program in terms of cost efficiency while meeting necessary quality and safety requisites and a developmental interest in terms of creating new market opportunities for local producers and businesses and for building the managerial and marketing capacity of these local actors.

Conclusion 5: Implement a cash-transfer pilot in area where WFP currently assist tuberculosis patients. The cash pilot should be based on a strong partnership with banks, look at already-existing experience in and outside of Tajikistan and carefully evaluate the risks associated with fraud, quality of food, price volatility and capacity of both WFP and its partners (in particular the Government) to sustain this approach.

VIII. References

Robinson I. (2008), Regional Market Survey Central Asian Region, Report of Mission for WFP. WFP, Regional Bureau Middle East, Central Asia & Eastern Europe (OMC).

State Statistical Committee (2009), Agriculture in the Republic of Tajikistan.

WFP (2002), WFP Bangladesh Food Security Brief – May 2002, WFP Bangladesh, Analysis & Mapping Unit.

WFP (2004), WFP Food Procurement Manual, WFP, 2004.

WFP (2005), Emergency Food Security Assessment Handbook, First Edition, June 2005.

WFP (2008), Tajikistan - Assessment of feasibility of cash/voucher options, October 2008.

WFP (2009), WFP Cash and Vouchers manual, First edition, December 2009.

WFP (2011), WFP CO Note on Local Purchase, 11/02/2011.

Annex A : Farmers Questionnaires

A/ GENERAL INFORMATIONS
1. Full name of the farmer organization.
2. Location. How far (in km and minutes) from center of district and main market?
3. Contact person's details.
4. Year of establishment of the business?

B/ PHYSICAL RESSOURCES
5. Number of registered members in Cooperative/Dehkan farm?
6. Do members own or rent the land?
7. Total amount of land you own/rent (hectares).
8. Total Surface of cultivated land, split between irrigated and non-irrigated if available.
9. Number of staff employed, split between seasonal and permanent if possible.
10. Type / number and condition of harvest equipment (tractors etc…).

C/ HARVEST
11. Planting period(s).
12. Production capacity of last two (or more!) harvests: gross/net harvest and production by type of crop.
13. Plans prior to planting seasons: crops, how much land would be allocated to each crop and marketing plans. Who takes these decisions?
14. Yield by crop.
15. Usage of fertilizers?
16. Usage of pesticides?

D/ POST HARVEST HANDLING AND PROCESSING
17. Storage
a) Type of storage facilities (outside-open/closed storage, indoors-open/closed)
b) Total Storage capacity.
c) Availability of grain elevators.
d) Transportation mean to storage facilities (railway, road, other transportation means). Is the train operational?
e) Cleaning conditions of the storage facility.
f) Is fumigation done, if yes, how many times? By what means?

18. Post harvest handling, processing and packaging and(for pulses and wheat)
a) labelling with WFP logo (facilities to prepare logo)
b) bagging provision (25 kg, 50 kg, ..).
c) scale (indicate tonnage)
d) post harvest processing (for wheat): Do you mill part of your production? If yes, do you mill for sale or for self-consumption. Any experience enriching/fortifying. Yourself or where do you go?

E/ MARKET ACTIVITIES/CONDITIONS OF SALES
19. Percentage of total production sold from last harvest?

20. Why not more sold?
a) Market price not attractive?
b) Absence of customers?
c) Poor quality of the production?
d) Keeping a share for self consumption? What share?

21. Do you sell directly on the market to final consumers or do you sell to a trader? If you sell to trader could you give us contacts?

22. Actual sale price of last harvest, and if possible of a few previous ones. How flexible is the price and do you adapt it to the volume of sale (biggest command, lowest price)?

23. Details of costs attached to selling crops.
a) transportation.
b) storage.
c) taxes.
d) market fees.
e) others: fuel, labour cost etc (including informal)

24. Source of information for price setting: How do you determine what is a fair price to sale your production? (competition (concurrence), newspapers, etc.).

25. Do you have a list of your current customers?

26. Do you have previous experience with selling to NGO/UN/Government?

27. Conditions of sales (need to give deposit, full amount at beginning?)

28. Able to perform a bond?

29. Possibilities of FCA/DAP deliveries.

30. Period of delivery from the moment of contract? Shortest delivery delay in case of an emergency request?

E/ MANAGEMENT / ACCESS TO FINANCIAL RESOURCES
31. Personal experience of the head: before the current organization, was he active as a member of another cooperative, an independent farmer etc… for how many years?

32. Has the organization ever received training by NGOs, international development partners or local authorities? In what fields (management? agricultural techniques? Etc.)

33. How do you share profits from sales among members? How much is retained for investment/maintenance? Who takes these decisions?

34. How do you share the retained share of the production among members? Who takes these decisions?

35. Access to credit cash loans, if yes current status.

36. Presence of Bank Account, bank reference/tax letter stating the absence of debt (if needed).

37. Do you have Harvest Insurance?

F) QUALITY CONTROL
38. Have you ever done a laboratory check of your production? At what frequency if yes?
(to request last laboratory certificate, to check GOST (state standard) certificate).
a) For wheat/flour, did you ever check gluten/protein content?
b) Grade of wheat?
c) Any insects/worms issues for pulses?
e) Can you share with us/show us results of the above tests as well as certificates?

ANNEX B: List of interviewees: dehkan farms, dehkan associations, traders, mills

1. Mahbub, milling and trade company, Dushanbe-Shahrinav
2. Galla, milling and trade company, Dushanbe
3. Jasur, milling and trade company, Dushanbe-Vahdat
4. Makolli, milling, trade and production company, Dushanbe
5. Zernovaya kompanija, milling and trade company, Khujand (phone interview)
6. Sahi, trade company (wheat flour), Dushanbe
7. Rohat, trade company (wheat flour), Hissor
8. Iakubov, trade company (wheat flour), Khujand
9. Narzullo Okhmadov, trader (pulses), Kurghan Teppa
10. Green Tech, trade company (pulses), Dushanbe
11. Maksud Ibrohimov, trader (pulses), Dushanbe
12. Zuirjon Izrailov, Tojik Matlubot (Consumer Union), Tursunzoda branch, director (phone inteview)
13. ATO, cotton seed oil factory, Yovon
14. Cesvi, consumer cooperative, Ghonchi
15. Khamadoni, production cooperative, Kuliab
16. Navruz, large dehkan farm (dealing with pulses trading also), Shahrinav
17. Latif Murodov, large dehkan farm, Hissor
18. Sharif-Shirim, production cooperative, Danghara
19. Osoni, individual dehkan farm, Faizabad
20. Saidoni, large dehkan farm, Faizabad
21. Doshimani, production cooperative, Faizabad
22. Todzhikon, production cooperative, Faizabd
23. Zargar, individual dehkan farm, Rudaki
24. Water Users Asscociation "Mekhtari", Rudaki
25. Mukaramov, production cooperative, Isfara (phone interview)
26. Chilgazi, production cooperative, Isfara (phone interview)
27. Davlatbek, large dehkan farm, Kabodijon
28. Faridon, large dehkan farm, Kabodijon
29. Islom, individual dehkan farm, Kabodijon
30. Omoni, individual dehkan farm, Kabodijon
31. Okkuzi-Polvon, large dehkan farm, Shahrituz
32. Uzbekiston, production cooperative, Shahrituz
33. Khodja, production cooperative, Shahrituz
34. Akenjaev, production cooperative, Vahdat
35. Association of Dehkan Farms, Vahdat
36. Association of Dehkan Farms, Faizabad
37. Association of Dehkan Farms, Danghara
38. Tajikistan, large dehkan farm, Kumsangir
39. Sharofidin, consumer cooperative, Pianj
40. Gandj, consumer cooperative, Pianj
41. Sodig, consumer cooperative, Pianj
42. Barodaro, consumer cooperative, Pianj
43. Bahtior, consumer cooperative, Pianj
44. Hamkor, consumer cooperative, Farkhor
45. Gulistoni Farkhor, consumer cooperative, Farkhor
46. Dusti Millat, consumer cooperative, Farkhor
47. Ehson, consumer cooperative, Farkhor

ANNEX C: List of interviews with International Organizations, NGOs, Republican/Local Administration and other Stakeholders

AKDN

Date 30/12/2010 and 14/01/2011

Name(s) and position(s) of our counterpart(s) Mr. Yodgor Faizov (CEO) and Ms. Beate Schoreit (Senior Programme Officer, rural development programme)

Main theme of the meeting General presentation of our project, exploration of their actions in terms of local procurement and development of local agricultural capacity, exploration for potential field visits.

ACTED

Date: 06/01/2011

Name(s) and position(s): Ms. Rano Mansurova, Country Director and Mr. Javlon Hamdamov, Director of the affilation of the Khatlon Branch.

Main theme of the meeting: General presentation of our project, exploration of their activities of development of agricultural production cooperatives, and exploration for potential field visits.

FAO

Date: 14/01/2011

Name(s) and position(s): Mr. Ibrohim Akhmadov and Mr. Azamjon Ibodov, FAO Project Managers

Main theme of the meeting: General presentation of our project, exploration of available data and information on the organization of local food production and markets.

Mercy Corp

Date: 13/01/2011

Name(s) and position(s): Ms. Malika Inoyatova, Program Coordinator

Main theme of the meeting: General presentation of our project, exploration of Mercy Corp activities in agricultural development.

Save the Children

Date: 12/01/2011

Name(s) and position(s): Ms. Mansura Bakhtdavlatova, Project Manager

Main theme of the meeting: General presentation of our project, exploration of their interest in local procurement.

USAID – Productive Agriculture Project

Date: 13/01/2011

Name(s) and position(s): Mr. Will Bullock, Chief of Party

Main theme of the meeting: General presentation of our project, exploration of their activities of development of agricultural production.

European Commission

Date: 17/01/2011

Name(s) and position(s): Mr. Boris Filipov , Project Manager PSD

Main theme of the meeting: Main theme of the meeting: general presentation of our current market study with focusing on local procurement and broadly of WFP activities in the country including an extensive presentation of the School Feeding Program, inquiry on their projects in support of agricultural development, for follow-up interviews/visits specifically on the school feeding/local procurement and exploration of potential future partnerships/coordination of efforts.

OXFAM
Date: 17/01/2011
Name(s) and position(s): Mr. Andrew Baker, Country Director
Main theme of the meeting: Main theme of the meeting: general presentation of our project, exploration of their activities in favor of the development of cooperatives, in view of potential field visits.

Ministry of Agriculture
Date: 25/01/2011 and 28/01/2011
Name(s) and position(s): Mr. Qutfullo Ziyadulloev, Head of the Crop Management Department
Mr. Narzullo Dadabaev , head of the Press Center; Mr. Behruz Yodgorov, press secretary.
Main theme of the meeting: General presentation of our project. Discussions on the current trends in local agricultural production. Provision of list of farmers cooperatives. Evaluation of MoA-RT interest in future cooperation.

USAID – Water User Association Project
Date: 07/02/2011
Name(s) and position(s): Mr. William Bell, Chief of Party
Main theme of the meeting: General presentation of our project, identification of potential farmers associations and collective farms supported by the WUAP to be visited as part of the local procurement study.

JICA and JICA Project for the Improvement of the Agricultural Extension Service Trough Reinforcing Agrarian Organizations of the Republic of Tajikistan (PIAS)
Date: 31/01/2011, 02/02/2011
Name(s) and position(s): Mr. Masashi Nakamura, Chief Advisor; Mr. Takashi Abe, Program Coordinator;
Mr. Sadi Karimov, JICA Program Officer
Main theme of the meeting: General presentation of our project. Identification of farmers for interviews. Sharing information on authorities to visit at district level.

CESVI
Date: 14/01/2011
Name(s) and position(s): Mr. Filippo Crivellaro, Country Representative and Sughd Project Manager
Main theme of the meeting: General presentation of our project. Presentation of the activities of the farmers cooperative supported by CESVI, and proposal for potential future cooperation.

National Association of Dehkans Farms
Date: 13/01/2011
Name(s) and position(s): Mr. Sharipov Azizbek Fatoevich , the chairman of National Association of Dehkans Farm
Main theme of the meeting: General presentation of our project. Identification of farmers for interviews.

Seed Association of Tajikistan
Date: 12/01/2011
Name(s) and position(s): Mr. Sanginov Jamshed , representative person
Main theme of the meeting: General presentation of our project. Identification of farmers for interviews.

GIZ – Kurgan Tyube Branch
Date: 08/02/2011
Name(s) and position(s): Mr. Yuldoshali Hasanov – Program Coordinator
Main theme of the meeting: General presentation of our project. Identification of farmers associations supported by GIZ in Khatlon for interviews.

Ministry of Agriculture-Pianj, local branch

Date: 03/03/2011

Name(s) and position(s): Mr. Saidamon Rakhmonov, head of local branch

Main theme of the meeting: General presentation of our project. Data exchange. Discussion of local procurement possibilities at the district level.

Ministry of Agriculture-Tursunzoda, local branch

Date: 04/03/2011

Name(s) and position(s): Mr. Habibullo Muloev, Head of local branch

Main theme of the meeting: General presentation of our project. Data exchange. Discussion of local procurement possibilities at the district level.

Ministry of Education

Date: 03/05/2011

Name(s) and position(s): Mr. Imomali Shokirov, Head of Department

Main theme of the meeting: General presentation of our project.

Mr Umed Davlatov

Date: 11/01/2011

Name(s) and position(s): Mr Umed Davlatov, former MSDSP Market Specialist for AKDN. (author of value chain analysis for a number of agricultural products)

Main theme of the meeting: General presentation of our project. Sharing contacts in order to obtain contacts of local traders and producers, as well as Kazakh wheat importers.

Annex D: RISK ANALYSIS AND CONTIGENCIES FOR CASH AND VOUCHERS PROJECTS

RISK ANALYSIS AND CONTIGENCIES					
Statement of risk	Underlying causes	Potential implications	Response contingency	Risk classification (manageable or un-manageable)	Extent/ severity (acceptable yes/no)
Taxes - need for waiver	Tajikistan's law	Project cost increase	Discuss waiver with authorities if needed	Manageable	Yes
Difficulties of selecting shops	Limited choice of shops with quality foods and storage	Reduced number of partners	Partner with local NGO to build shop's capacity	Manageable	Yes, but severe
Corruption and fraud	Low salaries and poverty	Low possibility of replacing offending shops	Changing vouchers Frequently, thorough monitoring	Manageable	Yes, but severe
Lack of partners in general	Partners focusing on specific areas	Initial project cost increase	Train existing partners such	Manageable	Yes
In remote areas the size of market compared to beneficiary numbers	Demand exceeding supply	Lack of commodities and increase of price at certain seasons	Implement project in well-supplied, surplus areas	Un-Manageable	No
Technological prerequisites not met	Lack of knowledge and infrastructures/ equipment	Limit the type of vouchers to be used	Focus on low technology	Manageable	Yes
Price fluctuation	High dependence on imports, fluctuation of currency and exchange rates	Value of voucher is compromised/ changes too often	The rate at which vendors are reimbursed for redeemed vouchers should also be adjusted for price inflation	Manageable to a certain point	Yes, but severe
Quality issue	Standards in place but lack of enforcement	Food available to beneficiaries does not meet WFP criteria	Provide reduced list of quality commodities	Manageable	Yes, but seasonally severe

World Food Programme

World Food Programme Tajikistan
7, Tolstoy Street
734000
Dushanbe, Tajikistan
Tel.: +992 (37) 224 39 50