

POLICY BRIEF



No. 2 (15), 2010

English version

CONTENT

- Introduction
- Policy for rural development
- The rural sector in Uzbekistan
- Opportunities and constraints in rural economic development
- Proposed policy actions

RURAL ECONOMIC DEVELOPMENT

This Policy Brief is a publication of the United Nations Development Programme (UNDP) Uzbekistan, which outlines the rationale for choosing a particular policy alternative or course of action in a current policy debate. Its target audience is policy makers, the donor community, independent analysts and other development stakeholders. The views expressed in this Policy Brief are those of the authors and do not necessarily represent those of UNDP or UNDP policies.

All rights reserved. No part of this document may be reproduced, stored in a retrieval system or transmitted, in any form or by any means without prior permission of UNDP Uzbekistan.

INTRODUCTION

A large part (64%) of Uzbekistan's population lives in rural areas and, indeed, in 2007¹, of the countries that emerged from the Soviet Union, only Tajikistan (74%) and Kyrgyzstan (64%) had higher or comparable rural populations in percentage terms². Uzbekistan's rural economy is dominated by agriculture, but the share of agriculture in GDP is declining and, in 2009, it contributed just over 18% of GDP as compared to an average of nearly 26% per annum for the period 2000–2008³. It also registered the slowest rate of growth in value added of any sector in 2007 and 2008⁴.

Estimates⁵ suggest significant differences in income and food consumption between urban and rural areas, with lower levels in rural areas^{6,7} and hence there is an obvious case for concentrating policy on this imbalance. It is apparent that actions aimed at rural economic growth will have agriculture at their core, but emphasis on the wider rural economic development will also be important since, worldwide, experience shows that agricultural growth alone is insufficient to raise rural income substantially. This is because agricultural earnings accrue mainly to those with access to the key factors of production (land and water) and because the linkages between agricultural growth and incomes in the rural sector as a whole are weak⁸. As a result, addressing non-agricultural incomes and, hence, non-agricultural income sources is essential in rural growth.

CONTACT US:

UNDP Representative Office in
Uzbekistan Country Office

4, Shevchenko Str. Tashkent,
100029 Uzbekistan
Tel.: +998 (71) 120-3450, 120-6167
Fax: +998 (71) 120-3485
policybrief@undp.org
www.undp.uz

1 Centre for Economic Research and United Nations Development Programme (2010). Addressing urban poverty in Uzbekistan in the context of the economic crisis. Tashkent.

2 http://www.fao.org/fileadmin/templates/ess/documents/publications_studies/statistical_yearbook/FAO_statistical_yearbook_2007-2008/a02.xls

3 UNDP (2010). Food security in Uzbekistan. Tashkent.

4 Centre for Economic Research (2009). Uzbekistan Economy: an information and analytical review for January-June 2008. Tashkent.

5 http://siteresources.worldbank.org/INTPRS1/Resources/Uzbekistan_I-PRSP_final_r.pdf

6 Cukrowski, Jacek (2006). Central Asia: spatial disparities in poverty. Development and Transition Newsletter, December. <http://www.developmentandtransition.net/uploads/issuesAttachments/15/DevTran5web.pdf>

7 Centre for Economic Research and United Nations Development Programme (2010), op.cit.

8 Stamoulis, Kostas and Zezza, Alberto (2003). A Conceptual Framework for National Agricultural, Rural Development, and Food Security Strategies and Policies. ESA Working Paper No. 03-17 ftp, Food and Agriculture

This policy brief therefore addresses rural economic development in Uzbekistan, which is taken to include both agriculture and the rural non-farm economy. It does not, however, address agricultural land tenure⁹ or cotton and wheat production under state procurement¹⁰. These are clearly significant aspects of agricultural policy and have major influence on rural economic development and on rural incomes. The reason for their omission is that changes in these areas would in turn lead to major alterations in agriculture and the rural non-farm economy, which would in turn necessitate reconsideration of rural development policy. Non-economic aspects of rural development are also excluded, except where there is a direct impact on economic development. Thus, health and education provision in rural areas are not addressed, while some aspects of infrastructure are included.

POLICY FOR RURAL DEVELOPMENT

The principle statement of economic policy in Uzbekistan is the *Welfare Improvement Strategy (WIS) 2008–2010*¹¹ which for, agricultural and rural development, sees restructuring based on a shift to higher-yielding cash crops, improved agricultural practices, and investment in irrigation. This is to be underpinned by increasing the number of dehkan plots (see below), improved water resource management, and reduced state procurement of cotton from marginal land. Farmers' access to finance is to be improved and land tax used to increase yield. Area-based development programmes are to be used to decrease inter-regional equality.

By Presidential decree¹², 2009 was designated the 'Year of Rural Development and Welfare'. The provisions are wide-ranging, but have particularly strong emphasis on rural infrastructure and, specifically, energy and domestic water supply in rural areas¹³. It also addresses agricultural development (including extension and farmer training), rural enterprise development (with emphasis on food processing and home-based 'cottage' industries) and health and education provision. Technology diffusion is given prominence, with particular attention to the food processing industry. Vocational training and retraining is to be supported, with emphasis on rural youth.

The redesignation under separate legislation¹⁴ of some 1,000 rural settlements in 2009 as towns and cities also has probable implications for rural infrastructure and in turn for rural private sector development. Under Uzbek law, this redesignation brings additional entitlements and funding and hence, seems likely to have beneficial effects on economic development.

THE RURAL SECTOR IN UZBEKISTAN

Agriculture. Virtually all agricultural production is irrigated¹⁵, with rainfed agriculture infeasible in much of the country. Cotton and wheat are the principal crops, with pro-

Organisation, Rome. ://ftp.fao.org/docrep/fao/007/ae050e/ae050e00.pdf

9 Agricultural land is entirely leasehold, with leases of between 10 and 50 years' duration which are, in principle, inheritable. Sub-letting the land is, however, prohibited.

10 Under the state procurement system for cotton and wheat, private farms are given quotas for cotton and/or wheat production which they are obliged to fulfill and to sell under state procurement arrangements at prices which are set below domestic free market prices. Not all private farms are subject to such quotas and there are no quotas for crops other than cotton and wheat. Households and dehkan farmers (who farm very small plots) are not subject to quotas, although some do grow wheat (which they are free to sell on the open market).

11 Republic of Uzbekistan (2007). *Welfare Improvement Strategy of Uzbekistan: full strategy paper for 2008–2010*. Tashkent. This replaces the earlier *Welfare Improvement Strategy Paper 2005–2010* (published in March 2005), which is also referred to as an Interim PRSP Document.

12 Resolution of the President of the Republic of Uzbekistan. 'On the State Programme for the Year of Rural Development and Welfare'. PP-1046, 26th January 2009.

13 http://www.jahonnews.uz/eng/president/addresses_speeches/nation_marks_constitution_day_president_addresses_nation.mgr

14 Decision of the Council of Ministers of Uzbekistan 'On additional means for improved administration and territorial division'. Decision number 68, March 13th 2009.

15 In 2006, 91% of the land under arable cultivation and permanent crops was irrigated. Indeed, of the countries that emerged from the Soviet Union, only Turkmenistan has a higher proportion (93%) of land under arable cultivation and permanent crops which is under irrigation.

Table 1.
Production of principal agricultural crops—2004–2009 ('000 tons)

	2004	2005	2006	2007	2008	2009
Cotton fibre						
	977	1,184	1,171	1,300	1,270	
Wheat						
	5,508	5,928	5,996	6,076	6,039	6,638
Vegetables (excluding potatoes and gourds)						
	3,336	3,517	4,294	4,691	5,221	5704
Potatoes						
	896	924	1,021	1,189	1,398	1524
Fruit and berries						
		949	1,182	1,270	1,402	1542
Grapes						
	589	642	804	879	792.5	899
Cattle and poultry (liveweight)						
	998	1,060	1,139	1,140	1,209	1367
Milk						
	4,281	4,555	4,855	5,097	5,426	5779

Source: Centre for Economic Research (2009). *Uzbekistan economy: information and analytical review for January–December 2008*. Tashkent. Statistical Review of the RUz 2009 and State Bulletin on Agriculture 2009 (Goscomstat)

duction of raw cotton in 2008–2009 at around 3.4 million tonnes. There is significant and increasing fruit, vegetable, livestock and silk production (see table 1).

Uzbekistan is a net agricultural exporter and, in 2006, had agricultural exports of US\$1,675 million, as compared to agricultural imports of US\$458 million (the comparable figures for 2005 were US\$1,517 million and US\$410 million)¹⁶, although only 25% of the agricultural exports are food exports¹⁷.

Russia is the principal export destination for fruit and vegetables, with fresh and dried grapes the principal fruit and vegetable export (see table 1). In contrast, little is sent to European markets because of the transport limitations of being a landlocked country and the distances involved¹⁸. Food exports to the EU are also constrained because Uzbekistan cannot yet comply with EU regulations on food safety or phytosanitary control¹⁹.

Exports of all fresh fruit and vegetables must be made through two government designated brokers²⁰. They control the export of fruit and vegetables and, although larger exporters and Agrifirms (see below) can themselves export, this is possible only after prior approval by a designated broker. The brokers also administer the minimum export prices set periodically by the government. Regional companies are charged with wholesaling and storage prior to export.

See http://www.fao.org/fileadmin/templates/ess/documents/publications_studies/statistical_yearbook/FAO_statistical_yearbook_2007-2008/a06.xls

¹⁶ <http://www.fao.org/economic/ess/publications-studies/statistical-yearbook/fao-statistical-yearbook-2007-2008/c-international-trade/en/>

¹⁷ http://www.fao.org/fileadmin/templates/ess/documents/publications_studies/statistical_yearbook/FAO_statistical_yearbook_2007-2008/c01.xls

¹⁸ Remoteness and isolation from OECD markets are major constraints on trade for all Central Asian countries. The average distance between the Central Asian republics and the nearest ports (on the Black Sea, the Arabian Sea and the Persian Gulf) is some 4,000km. Estimates suggest that high transport and related charges (including insurance) mean that it costs Central Asian countries three or four times more to export and import than, for example, Morocco or Thailand. UNCTAD (2003) *Challenges and Opportunities for Further Improving the Transit Systems and Economic Development of Landlocked and Transit Developing Countries*. May: Geneva.

¹⁹ See World Bank and World Health Organisation (2009). *Food safety in Uzbekistan*. Draft: October.

²⁰ See Decree of the Council of Ministers, no 93, 2008 and Presidential Decree no. 1047, January 26, 2009.

Table 2: Value of exports of fruit and vegetables (US\$'000), 2000–2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Potatoes	1,496	587	152	138	1,108	1,036	117,1	-	-
Tomatoes	6,522	5,705	4,099	3,209	2,695	6,069	13,359	52,485	15,850
Bulbous vegetables	6,050	3,796	3,911	4,071	5,597	7,266	13,029	18,984	10,561
Other vegetables	4,566	3,470	3,202	3,926	3,324	8,350	29,447	61,335	28,087
Frozen and processed vegetables	50	37	177	232	249	606	1,113	3,079	2,310
Dried vegetables	7,407	7,688	8,545	14,282	9,871	14,145	2,839	45,433	34,854
Nuts	3,586	5,203	6,460	3,726	3,278	4,924	17,858	39,145	26,373
Grapes (fresh and dried)	20,767	16,654	9,131	5,958	11,633	19,927	110,993	147,665	126,741
Melons and water melons	2,245	2,299	2,075	2,012	2,980	5,404	34,152	69,216	55,973
Apples, pears, quince	2,894	1,817	925	493	575	930	12,108	69,216	55,973
Apricots, cherries, peaches, plums	4,588	5,091	3,932	1,443	2,368	3,999	39,412	36,771	16,464
Other fruit	2,536	2,106	1,574	1,008	2,714	6,340	46,092	36,940	50,682
Processed fruit and nuts	79	5	39	72	139	102	288	1,220	1,112
Dried fruit	5,932	4,266	2,174	2,108	2,253	3,475	7,908	17,387	21,793

Source: Centre for Economic Research (2007). Stimulation of production and export of fresh fruit and vegetables in Uzbekistan. Tashkent and Goskomstat data.

Farm landholding structures in Uzbekistan have been subject to several changes since Uzbekistan's independence from the Soviet Union. During the 1990s, the state and collective farms established during the Soviet era were reorganised into producer cooperatives ('Shirkat'), with members receiving a share of the land and other assets. There has subsequently been progressive transformation of Shirkat into private farms which are held on leases of up to 50 years. The average size of a *private farm* in 2008 was 27 ha, with the majority of land used for cotton and wheat production²¹.

Agricultural land is also held in the form of *dehkan farms*. Formed from land previously held by the state and collective farms, they comprise very small land plots which average 0.17 ha and cannot exceed 0.35 ha if irrigated or 1 hectare if unirrigated. They are also held on leases and, in 2007, there were some 4.7 million such farms occupying a total land area of around 694,000 hectares²². Dehkan farmers are free to choose which crops and livestock to produce and are not subject to state procurement arrangements for wheat and cotton (although some 16% of cereal production in 2008

21 See Resolution of the President of the Republic of Uzbekistan 'On formation of a Special Commission for the elaboration of proposals on measures of optimization of sizes of land plots under the authority of farm entities'. Resolution no. P-3077, October 6th 2008. The largest farms were in Karakalpakstan (average 59 ha) and Surkhandarya (43 ha), with the smallest in Khorzem (12 ha), Andijan (14 ha) and Fergana (16 ha). However, in October 2008, the size of private farms was increased through a process of 'optimisation', whereby selected leases were revoked with the land involved then transferred to other farmers. The focus of the optimisation was on wheat and cotton producing farms and the average size of private farms is now thought to be around 56ha, with the number of farmers falling by about 52% from 220,000 to 105,000.

22 Centre for Economic Research (2008). Uzbekistan economy: information and analytical review for January-December 2007. Tashkent.

was from dehkan farms). Overall, some 75 percent of non-wheat food production is thought to be from dehkan farms²³.

Agrifirms, a hybrid structure, were established from 2006 onwards in the fruit and vegetable subsectors²⁴. They were constituted for the distribution and processing of fruit and vegetables (of their own produce and those of other farms) but have also, on occasions, vertically integrated through primary production. There are at present some 200 Agrifirms and some have in effect a monopoly on wholesaling in the areas in which they operate²⁵.

Outside wheat and cotton production, there is no *extension service* in Uzbekistan. This was previously provided as one of the functions of the state and collective farms but was lost with their break up. A number of demonstration plots have been established, often with development assistance, as have some Rural Development Centres. There are also service providers in Uzbekistan which meet part of the demand from different sub-sets of the farming community. They typically offer advice and guidance at demonstration plots. Farmers are invited to visit the demonstration plots either on an *ad hoc* basis and/or on 'open days' on which groups of farmers are invited. There are also a number of crop specific agricultural research institutes, many with branches in the regions²⁶.

There are limited *cold storage* facilities and the refrigerated stores which do exist are typically privatised remnants of collective or state farms. There are, nevertheless, some new refrigerated cold stores, some of which are owned and operated by Agrifirms. In addition, farmers often use cold stores at farm-level based on evaporative cooling. These have small capacities (typically up to 5 tonnes) and, while losses are at higher rates than refrigerated stores, investment and operating costs are low, and energy requirements minimal²⁷.

Input supply in agriculture is a mixture of public and private provision, involving state-owned firms and private merchants, although with production, distribution and pricing of fertilisers largely under government control. There is also marked public involvement in agricultural machinery, with state-owned machinery and tractor parks renting machinery to private farmers²⁸. In contrast, output marketing is mainly in the private sector. Farms and merchants may also sell to Agrifirms, while dehkan farmers often sell directly in wholesale and small retail markets ('dehkan markets')²⁹.

Farmers' interests are represented by the Farmers' Association. Formed in 1998, it provides representational functions and a range of technical services. These include legal support, market information, assistance to marketing and help in accessing financing. There are also industry representational bodies, including the Association of Oil-Fat and Food Industry³⁰ and the Association of the Meat and Milk Industry.

23 World Health Organisation and World Bank (2009). Food Safety in Uzbekistan. Tashkent.

24 Resolution of the President of the Republic of Uzbekistan: 'On measures for deepening economic reforms in fruit and vegetable production and viticulture' Resolution No 255, 11th January 2006. The necessary regulations to implement the Decree were set out in Council of Ministers Resolution No 42, 10th March 2006.

25 UNDP (2009). Investment guide to the food processing sector in Uzbekistan. Tashkent.

26 Agricultural research institutes in Tashkent address, variously, genetics and experimental plant biology, plant protection, forestry; vegetables, melons and gourds; vine growing and wine making, natural fibres; as-trakhan sheep breeding; and sericulture. There are also branches of agricultural research institutes in the regions and, for example, in Fergana, there are branches concerned with horticulture, viticulture and wine making, cotton and grains.

27 These storehouses are constructed in using locally-available raw materials. Walls are constructed from a mixture of clay and wheat straw, which has high insulation qualities. Roofs are also insulated and the storehouse is north facing, with opening windows for morning and evening ventilation. Capacities are usually around 5 tonnes and produce is stored in single layers per box in slatted wooden boxes. These are stacked, with the first box raised off the ground for airing. Stores are fumigated with sulphur and chilled with ice blocks before loading. Thereafter cooling is from evaporation from water trays placed on the floor of the store.

28 http://www.zef.de/module/register/media/5d18_Abdullaev_revise.pdf

29 Resolution of the President of the Republic of Uzbekistan. 'On the State Programme for the Year of Rural Development and Welfare'. PP-1046, 26th January 2009, article 38.

30 www.uzmaslojir.uz

Rural non-farm economy. Estimating the size of the non-farm rural economy in Uzbekistan and its contribution to GDP is difficult³¹ and, while various attempts at estimation have been made elsewhere, there is no agreed methodology or basis for this³². Indeed, the term 'non-farm rural economy' has no clear and generally understood meaning, partly because the 'sector' tends to be heterogeneous. It is generally taken to consist of all activities in the rural economy that are not pursued on farms. It therefore comprises all public and private services and the non-farm private sector in rural areas. The latter normally consists of a few large companies, many micro, small and medium enterprises, cooperatives, producer groups and other community-driven groups.

The rural non-farm economy in Uzbekistan is dominated by agroprocessing and services. Agroprocessing mainly involves large processors many of which are located close to Tashkent, although fruit and vegetable processors also concentrated in the Fergana Valley. Some are former state-owned enterprises which have been privatised, but others are newly established. The principal products from larger processors are juices and concentrates, canned vegetables, frozen fruit and vegetables, teas, vegetable paste and puree, dried fruit and vegetables, meat and dairy products, oils and fats, and pasta³³. Production is both for domestic market and for export, mainly to Russia and Kazakhstan, although data is not publically available on the value or volume of such exports.

In contrast, there are few small agroprocessors in rural areas. There are some isolated examples in cheese production, meat processing, pasta making, fruit drying, and juice making. Some agroprocessing is at household level and is thus informal and, production is for local market with sales in fresh markets or to small local retailers. Little or no produce from these sources is sold to larger national retailers, partly because of producers' inability to meet volume requirements and because informality means that they do not have access to bar codes or tax registration. The remainder of the non-farm rural economy involves service industries, including retailing, wholesaling and trading; banking, credit unions and microfinance organisations; trading, transportation and other small services.

Private sector representation is provided by the Chamber of Commerce and Industry³⁴. First formed in 2004³⁵, it has offices at Provincial and District³⁶ levels and membership is voluntary. They support business development in rural areas (as well as urban areas) through 'Information Centres', which provide selected business advisory services to new and existing businesses. In addition, a number of Entrepreneurship Centres have been established which are, in effect, 'one-stop-shops' for various business services.

31 It is difficult to obtain evidence on income shares from non-farm sources for the formerly socialist Central and Eastern European countries and CIS, in part because non-farm income is not recorded in the statistics of most countries, and also because survey respondents are often unwilling to provide information on their incomes. However, there is growing evidence that, in the late 1990s, rural households in the CEECs obtained 30 to 50% of their income from non-farm sources. For example, in Poland in 1997, agriculture was the main source of income for only 29% of village households and 40% of the rural population, whereas non-agricultural income was the main source for 30% of village households. In Ukraine in 2000, 76% of the income of private farmers' families was from agriculture, while 16% was from off-farm sources and 8% from business. It seems likely that the rural non-farm economy is generally larger in the CEECs and the Balkans than in the CIS, and also possible that income from the non-farm economy is underestimated in the CIS with respondents concealing income for tax reasons. See Junior Davis (2006). Rural non-farm livelihoods in transition economies: emerging issues and policies. eJADE (electronic Journal of Agricultural and Development Economics), Vol. 3, No. 2, 2006, pp. 180–224, [ftp://ftp.fao.org/docrep/fao/009/ah756e/ah756e00.pdf](http://ftp.fao.org/docrep/fao/009/ah756e/ah756e00.pdf)

32 Attempts at estimating the size of the non-farm rural economy suggest significant variations from country-to-country. However, despite widespread policy emphasis on rural industries, manufacturing rarely accounts for more than 20 to 25% of rural non-farm employment, with trade, transport, construction, and other services accounting for the remainder. See http://www.ifpri.org/events/seminars/2005/smallfarms/sfproc/SO4_Hagblade.pdf

33 UNDP (2009). Investment Guide to the food processing sector in Uzbekistan. Tashkent.

34 www.chamber.uz

35 Presidential Decree 3453, July 7th 2004.

36 The state structure in Uzbekistan consists of three distinct levels or tiers. These are the republican level (first tier), the 'Viloyat' (or province, the second tier, which is headed by the Provincial Hokim), and the 'Nohiya' or 'Tuman' (district level, the third tier, which is headed by the District Hokim). Neighbourhood-level self-governing citizens' assemblies (more commonly known as 'Mahalla' Committees) represent the smallest territorial administrative unit, although they are not formally under the responsibility of the State. This notwithstanding, the government has charged Mahalla Committees with distribution of funds for social support, including funding for safety nets.

There are 30 Business Incubators and an Association of Business-incubators and Technoparks to provide support to the incubators.

Business environment. Uzbekistan's rating for business friendliness improved slightly in 2008 and, in overall terms, the country rose from 140th to 138th position (out of 181 economies), but fell back in 2009 (to 150th position)³⁷. The deterioration in 2009 was due to worsening in the conditions for starting a business and problems in paying taxes. Arrangements for obtaining construction permits were, however, improved³⁸. A significant element of the business environment in Uzbekistan is shortage of cash. While most commercial transactions must be made through bank transfers, those that can only be done in cash are impeded by the difficulty in obtaining sufficient cash³⁹.

Rural finance. Loans for agriculture are provided by banks⁴⁰, microfinance organisations, and credit unions. Under the Year of Rural Development (see below), two existing state-owned banks were reorganised into, respectively, the Rural Construction Bank and Agrobank⁴¹. The latter will lend to farmers for cotton and wheat production at interest rates substantially below prevailing market rates.

Microfinance is currently being provided through microfinance organisations, credit unions and Microcredit Bank, a state-owned bank which offers loans at below base rate. Microfinance organisations provide loans at market rates (2.5% to 4–5% monthly) without collateral, usually on a group basis (the exception is the lending by Microcredit Bank which offers subsidised collateralised individual loans). All offer step loans whereby, when all group members make all payments on time and in full, group members are then able to borrow larger amounts in successive borrowings. Loan maturities are for up to one year and repayment terms are tailored to individual microfinance products. Delinquency rates are very low, partly as a result of strong social pressure in Uzbekistan against personal indebtedness. A large proportion of the borrowers (83%) are women.

There is some use of *leasing*. Enabling legislation was put in place in 2002⁴² and leasing is now principally provided by Uzselkhozmasheasing (a state-owned leasing company), the banks and specialised leasing companies⁴³. In 2006, the total value of the leasing portfolio of all lessors was equivalent to US\$201 million. Agricultural equipment continues to dominate the leasing industry and, in 2005, 57% of new leases were for agricultural machinery (70% in 2004).

Rural infrastructure. Almost all rural areas are served by the national grid and hence can access mains electricity. In practice, blackouts are common⁴⁴, with electricity supply particularly erratic in rural areas⁴⁵. Most urban areas and some rural areas are connected to piped water and to sewerage systems. In practice, however, water

37 See <http://www.doingbusiness.org>

38 <http://www.doingbusiness.org/Documents/CountryProfiles/UZB.pdf>

39 <http://www.adb.org/Documents/Books/ADO/2006/uzb.asp>, <http://www.eurasianet.org/departments/insightb/articles/eav092109a.shtml>

40 The banking sector is made up by state-owned banks and private and commercial banks, with a distinction made between private and commercial banks on the basis of their status as commercial on the basis of their ownership structure. In practice, there is little difference between the operations of private and commercial banks.

41 See Resolution of the President of the Republic of Uzbekistan. 'On the State Programme for the Year of Rural Development and Welfare'. PP-1046, 26th January 2009, articles 4 (d) and 12..

42 Presidential Decree no. 3122, On Measures for the Future Development of Leasing, August 28th, 2002.

43 <http://www.ifc.org/ifcext/acalf.nsf/Content/UZHome>

44 Production of electricity in Uzbekistan has fallen from 56 million kilowatt-hours in 1990 to 49 million kilowatt-hours in 2007 (see http://www.adb.org/Documents/Books/Key_Indicators/2008/pdf/uzb.pdf), although demand from industry has also fallen by 17% over this period despite high levels of GDP growth (9% in 2008). (see UNDP (2008). Options for continuing reforms in the energy sector in Uzbekistan. Policy Brief, no.1(8), June) Assessments suggest that almost all the generating capacity is old, with an average age of more than 30 years, and in need of substantial rehabilitation. Some 90% of the production is from thermal sources and maintenance requirements are high. Reliability of plant and equipment is poor and, with increasing demand particularly during peak periods both in summer and winter, peak demands cannot be met. In 2003, it was estimated that there was a peak-period deficit of about 800–900 MW in winter. This situation is exacerbated by power losses, low payment rates relative to billing (with particular problems in payments by state-owned enterprises) and low tariffs (although tariffs to all consumer groups are being and grew by more than 150 percent in 2004 alone). See World Bank (2003). Energy sector: issues, analysis and an agenda for reform. Tashkent, June.

45 UNDP (2008). Options for continuing reforms in the energy sector in Uzbekistan. Policy Brief, no. 1 (8). June.

supplies are often unreliable (with availability restricted to between 2 and 8 hours per day)⁴⁶ and/or of poor quality⁴⁷, with consumers in some areas relying on water delivered by tankers.

Vocational training and retraining. Vocational college mainly involves three-year programmes⁴⁸ and is aimed principally at school leavers⁴⁹. There is in contrast very limited provision of retraining facilities for adults. The 2007 *Law on employment*⁵⁰ provides that the registered unemployed are entitled to retraining, backed by counselling on their training needs and job opportunities⁵¹. In practice, however, the number of registered unemployed is very low (22,867 in 2008, of which 72% were from rural areas⁵²) and retraining facilities are limited. Indeed, there is only one Retraining Centre for the unemployed (in Tashkent).

OPPORTUNITIES AND CONSTRAINTS IN RURAL ECONOMIC DEVELOPMENT

As in the rest of the economy, Uzbekistan has adopted a *state-led approach to rural economic development*, as part of which features of an open-market economy are introduced to the existing system in a step-by-step manner. This has contributed to the dualistic development of agriculture, with a quasi-private cotton- and wheat-based commercial 'private' farming sector, existing alongside the part-subsistence, part-commercial dehkan farming sector.

In principle, the *private farming sector should offer potential for growth*. Farm sizes have increased substantially as a result of the recent 'optimisation' process, thereby offering economies of scale, particularly in mechanisation, but also in cold storage and production in greenhouses and plastic tunnels. In addition, preferential finance is directed to private farms, with a dedicated agricultural bank offering cheap loans with longer maturities. However, continued regulation of cropping patterns linked to state procurement of cotton and wheat; high implicit rates of cotton taxation under state procurement⁵³; and uncertainty about landholding structures seem likely to hold back this part of agriculture. In addition, reports of persistent rent seeking by bank officials in extending loans mean that the real cost of borrowing is probably significantly higher than the headline rates.

If there were growth in this sector, it is likely to have beneficial effects on the wider rural economy, with effects felt by merchants, wholesalers and other intermediaries. Machinery supply and repair services and other service industries would also benefit as, in the medium term, would food processors and Agrifirms, which are likely to have better expectations of bulk supplies of raw materials. There are also likely to be effects on rural retailing and service industries in general. But increases in farm size will, if matched by increased mechanisation, probably also lead to reduced employment in agriculture (with the prospect of rural labour surpluses⁵⁴) and hence lessen its ability to act as a safety net. Indeed, the optimisation process may well have led directly to the redundancy of many of those displaced from their land.

46 <http://www.reliefweb.int/rw/rwb.nsf/db900sid/JBRN-7WCHZZ?OpenDocument>

47 UNDP (2007). Water: a critical resource for Uzbekistan's future. Tashkent

48 State Committee of the Republic of Uzbekistan on Statistics (2005). Development of the education system in Uzbekistan, 2000–2004.

49 See <http://www.undp.uz/en/publications/publication.php?id=100> and <http://www.undp.uz/en/publications/publication.php?id=242>. Also UNDP, MTM Statistikasi and UZSTAT (2007). Primary and secondary education in Uzbekistan: facts and figures 2000–2006. Statistics series no. 5.

50 Decree of the President of the Republic of Uzbekistan on employment. Decree no. 616, 6th April 2007.

51 These entitlements were also reflected in the revised structure of Departments of Labour and Social Protection in Tashkent and the regional administrations.

52 Centre for Economic Research (2009). Uzbekistan economy: statistical and analytical review, 2008. Tashkent.

53 Studies of cotton taxation in Uzbekistan suggest major explicit and implicit taxes and subsidies amounting to net transfers at around 20–22 percent of farmers' gross cotton revenue in 2003–2004. Net of debt forgiveness, net transfers were around 30 percent of farmers' gross cotton revenues. This was higher than the corporate income tax rate of 18% and the maximum personal income tax rate of 30%. See World Bank (2005). Cotton taxation in Uzbekistan: opportunities for reform. ECSSD working paper no. 47. August.

54 Centre for Economic Research (2009). Welfare and Urbanisation in Uzbekistan. Development Focus, no. 4, October.

In contrast, *opportunities for growth in dehkan farming appear to be limited* by very small farm sizes. Leasehold of land in dehkan farms means that increasing farm size through land purchase is impossible and, indeed, even informal land rental for dehkan farms is said to be rare. Further, their use for subsistence and thus as safety nets encourages risk avoidance strategies through diverse cropping patterns. And while this means that household needs are usually covered, it also means that marketed surpluses are small and, as a result, cash earnings limited.

Their size and informality also means that *dehkan farms are unattractive to the banking sector* and indeed are excluded from the preferential loans extended to private farms. As a result, they have to pay much higher interest rates for loans, with maturities only suitable for seasonal credit. The continuation of leasehold for dehkan farms inevitably also acts against investment. Their orientation to the domestic market and, indeed, to areas immediately adjacent to where production takes place also means that the higher standards and quality expectations typically found in export markets are not transmitted, with the consequence that such farmers have less incentive to make quality improvements.

But *despite multiple disadvantages, the dehkan farming sector appears vibrant* and, with the exception of land tenure, can be seen as being close to private agriculture. Dehkan farming is largely unregulated and hence farmers are free to produce what they choose. Further, because of cash limitations, such farms tend to be low cost (with more limited use of purchased inputs than commercial farms) and use family labour. Indeed, because of the high cost of inputs (and, in particular, the cost of agrochemicals) many are involuntarily organic. Despite this, there is evidence that yields are higher than for private farms, probably because of greater intensity of production⁵⁵. The opportunity to sell directly in fresh markets also means that farmers themselves obtain the full marketing margins.

There are nonetheless risks that dehkan farmers will be excluded from the benefits of irrigation rehabilitation and development. The economies of scale from irrigation infrastructure, which are apparent on private farms, are not available on dehkan farms. In consequence, there are incentives to divert budget-funded expenditure on irrigation to the benefit of private farms. Indeed, irrigation rehabilitation to date has focused on rehabilitation of primary and secondary canals and, hence, on the delivery of water to Water Users Associations. There has been little attention to on-farm infrastructure and, while there are no studies on the subject, there is anecdotal evidence that delivery to dehkans and household plots is constrained both by duration of the cotton production season (which is shorter than that for vegetables with the consequence that supplies outside the cotton season tend to be less reliably provided) and by obsolete on-farm irrigation infrastructure. As a result, community-based actions in irrigation development, where communities work together in irrigation rehabilitation and development and hence reduce cost, are likely to be necessary if on-farm delivery of water is to be improved.

The *dualistic development of primary agricultural production is also mirrored in the food processing industry* in Uzbekistan. Thus, as noted, there are a number of large food processors, often located close to Tashkent. These are large volume processors, which sell in both domestic and export markets. They can access credit from the banking system, sometimes involving funds on-lent from those provided by international development partners. There is a natural linkage between these processors and development of the private farming sector in Uzbekistan since, in this way, supplies of raw materials are likely to be assured. This notwithstanding, some processors are understood to have vertically integrated into primary production as a way of guaranteeing supplies.

⁵⁵ In 2005, the average yield of grapes on dehkan farms was 9.5 tonnes per hectare, as compared to 5.1 t/ha for private farms. In the same year, dehkan farmers averaged 17.6 t/ha for potato production, against 13 t/ha on private farms. The yields for melons and gourds was 21.5 t/ha, while private farms achieved 13.4 t/ha. See Centre for Economic Research (2007). Stimulation of production and export of fresh fruit and vegetables in Uzbekistan. Tashkent.

In contrast, although there has been development of small-scale food processing mainly at the household level, serious constraints on expansion are keeping the sector from performing adequately. Indeed, overall estimates suggest that only some 11% and 15% of food fruit and vegetables by volume are processed^{56, 57}. New agroprocessors are generally small and, typically, informal and, like most small firms in transitional countries, face constraints in finance, management, marketing, logistics and corruption. Importantly they also face problems of technology and, although small-scale affordable technology exists (principally from Russian, Chinese and Indian suppliers), for logistic reasons processors have sometimes been constrained in obtaining equipment from these sources. Partly as a result, there is widespread use of secondhand machinery. This problem is explicitly recognised in the provisions under the Year of Rural Development in that technology diffusion is to be supported by regular technology fairs, with particular emphasis in food processing. The *slow development of agroprocessing means that there has been very little job creation from this source*. At the same time, as agriculture further commercialises, labour will be released (in addition to that already released as a result of farm optimisation). The growth of agroprocessing will thus be an important component in creating jobs in rural areas and, indeed, there are currently few other opportunities for rural jobs. There is also a case for establishing food processing at the level of the household or microenterprise, in recognition that significant investment in larger processors in rural areas is unlikely in the medium term. The kick-start to food processing to be provided by Agrifirms is a potentially valuable step in this direction, but such firms are also at an early stage and may suffer some of the same constraints as other small rural agroprocessors (although they are likely to have better access to finance).

But in the absence of a rural small-scale food processing sector, rural value-added is likely to remain low and will accrue mainly to the large processors on the periphery of Tashkent. Given that these firms will either source raw materials from private farms or from their own lands, the benefits for small farmers are likely to be limited. It is thus unlikely that dehkan farmers will be able to benefit from the development of large-scale food processing and so will have little or no opportunity to obtain gains from the growth of the industry. At the same time, those farmers (whether private or dehkan) who do not have facilities to store their produce will suffer the additional disadvantage of having to sell at harvest time and hence to accept the lower prices prevailing at that time.

Despite this, preliminary financial analyses of small-scale processing at the household and microenterprise level based on available technology suggest that actions in this area are potentially attractive. Indeed, some microfinance organisations now lend for home-based food processing and report that demand for loans in this area is strong. Production is mainly intended for sale locally and through fresh markets and, while volumes are small and the product unsophisticated, they do provide opportunities for cash income for sections of rural communities where even small amounts of value added are likely to make a significant contribution to welfare. It is nonetheless clear that, in the dehkan farming sector, and probably in the rural economy as a whole, the funding available for investment in food processing equipment is limited. Interest rates and loan maturities typically available under microfinance are normally unsuitable for the purchase of equipment and so, given the difficulty of getting bank loans, few potential entrepreneurs can afford the investment costs.

This situation is exacerbated by the *slow emergence of private 'voluntary' cooperatives* which could form a vehicle for investments in food processing and, indeed, for agricultural investments (including machinery and greenhouses). The small landholdings of dehkan farmers beg the question of whether cooperatives involving such small farmers are feasible, although experience in other parts of the world suggest that this should not be a constraint. A further constraining factor on both cooperative and small-scale food processing development (and indeed on enterprise development in general)

56 World Bank and WHO (2009). Food safety in Uzbekistan. Tashkent.

57 UNDP (2009). Investment guide to the food processing sector in Uzbekistan. Tashkent.

may be the wish to remain inconspicuous. In contrast, formality and visibility through establishing a cooperative or an enterprise risks greater oversight and the attendant risk of additional bureaucracy and rent seeking, as well of course as the need to pay taxes.

In contrast to food processing, the *services sector in rural Uzbekistan is well developed*, with a good range of services in evidence in many areas. These include retailing and banking, as well as low-barrier-to-entry services, including car and machinery repair and hairdressing⁵⁸. The agricultural merchanting and wholesaling sector also appears strong⁵⁹, particularly input supply where state and private sector provision exist in parallel. The strong representation of banks in rural areas can partly be accounted for by continuing state involvement in banking and hence a willingness to provide banking services in areas where private sector provision would otherwise be financially unattractive (although this implicit subsidisation is likely to crowd out the private banking sector).

This evidence of rural private sector development notwithstanding, it is apparent that the *constraints of reliable energy and water provision on rural enterprise are significant*. Many areas suffer from unreliable energy and only a few escape regular power cuts⁶⁰. This is not only a major barrier to enterprise development (since few enterprises could afford to invest in, or operate on the basis of, diesel-generated electricity alone), it also affects farming since irrigation pumps are mostly electric and reliability suffers if there are frequent power cuts. There are also obvious implications for refrigerated cold stores. And while there are technological developments which could reduce the costs of diesel-generated electricity (by, for example, using windpower to produce compressed air and hence to improve the efficiency of diesel generators) the technology is not yet widely available or tried-and tested. As a result, reliance on electricity from the national grid is likely to form the basis for rural enterprises for the foreseeable future.

Similar constraints arise from the unreliability of potable water supplies, with the unreliability of mains supplies constraining the development food processing and other enterprises. Indeed, it seems infeasible to consider enterprise development in many areas simply because water and/or electricity is unavailable or provision erratic. The public investment programming process should, in principle, allow districts and provinces to convey requests for funding to the central administration for adjudication for inclusion in the public investment programme. In practice, poor quality proposals are at a disadvantage and less likely to attract financing. As a result, and even if lack of funding is the principal constraining factor, the capacity of administration at provincial and district to prepare public investment proposals is likely to have a bearing on reliable energy and potable water provision.

Overall, therefore, *basic infrastructure is emerging as one of the constraints to faster and more widespread rural growth*. Uzbekistan has generally maintained its infrastructure (roads, irrigation network, electricity, and gas distribution) in better condition than some of its neighbours and has continued to invest in selected infrastructure throughout the transition period. Nevertheless, it is facing a major challenge in providing infrastructure sufficient for enterprise development. The stock of infrastructure assets it inherited from the Soviet Union is large for a country of Uzbekistan's GDP per capita and a significant part of it may already be beyond its technical-economic life. As a result, the financing needs required to ensure that the provision and the quality of infrastructure services support future growth objectives will be large in both urban and rural areas.

58 Davis (2006) argues that the opportunity to fill the socialist economies' 'service gap' enabled many families to develop shops, bars, hairdressing salons, and nightclubs which were previously lacking—although most were too small to have a significant impact on employment. See Davis (2006), op.cit.

59 Centre for Economic Research (2004). Developing market infrastructure for farming entities. Tashkent.

60 This appears to be largely the result of low investment in generation capacity. As a result of low cost recovery and consequent limited reinvestment, the capital stock in parts of the energy sector has been run down and is in urgent need of rehabilitation or replacement (see http://siteresources.worldbank.org/INTUZBEKISTAN/Resources/Energy_Sector_eng.pdf). It is also noteworthy that, despite high levels of growth in recent years, the number of kilowatt-hours generated in Uzbekistan is largely unchanged since the start of the transition (see http://www.adb.org/Documents/Books/Key_Indicators/2008/pdf/uzb.pdf).

The economic crisis has uncertain consequences for the rural sector. The return of migrants from Russia (the principal receiving destination) and elsewhere⁶¹ may well pose challenges. At around 8% of the population⁶², Uzbekistan's stock of migrants is thought to be high (although no data is available) and remittances are significant. Indeed, estimates suggest that remittances to Uzbekistan in 2008, reached an all-time high of US\$3.8 billion, equivalent to around 20% of GDP and as such provide a route to welfare gains as well as a safety net. But remittances from Russia during the first half of 2009 fell by almost 33% (to US\$769 million) as compared to the corresponding figure in the first half of 2008⁶³. There is as yet no data on the extent of return of migrants, although anecdotal evidence suggests that there has been significant return. Further anecdotal evidence suggests that this has mainly been to rural areas and hence this sharp decrease in remittances may well be felt most acutely there. Agriculture and, specifically, dehkan farming are likely to have absorbed most of the returning migrants, albeit at the cost of falling labour productivity.

Overall, *the rural economy seems to have felt muted effects from the downturn* and, ironically, the limited access that dehkans and rural enterprises had to bank-intermediated finance before the crisis may have had the advantage of making any growth in the rural non-farm economy less dependent on bank lending than in other sectors, since there is little or no experience of reliance on cheap credit. But, clearly, demand for agricultural produce may fall, even though the elasticity of demand for food items may be low. In addition, stress on budgetary funds will probably lead to cutbacks in, or lack of provision for, public goods and, overall, reduced provision for infrastructure financing.

PROPOSED POLICY ACTIONS

Policy on agriculture and the wider rural economy was addressed in the Welfare Improvement Strategy and has recently been given significant extra weight and detail though the legislation linked to the Year of Rural Development. As a result, many directions in agriculture and rural development have already been shaped. The policy recommendations set out below seek to build on this foundation.

It has already been argued that attention to the rural non-farm economy is essential in terms of income gains and spreading the benefits of growth. Indeed, given the low capital requirements and small scale of many rural non-farm businesses, poor households already dominate large segments of the rural nonfarm economy. Women are heavily represented in many cottage industries, while the poor dominate other low-return activities, such as small-scale trading and unskilled wage labour used in construction and many personal services⁶⁴. The benefits of wage labour, in both agriculture and non-farm businesses, also accrues primarily to the poor⁶⁵.

Accelerating output and productivity growth in the rural economy will, experience suggests, also require investing in agricultural technology, rural education, communications, transportation, and electrification as, indeed, is acknowledged in the *Year of Rural Development and Welfare*. Together with a favourable business environ-

61 The top 10 destination countries for migrants from Uzbekistan are Russia, Ukraine, Tajikistan, Kazakhstan, Kyrgyz Republic, Turkmenistan, Israel, Latvia, USA and Germany.

62 See <http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1199807908806/Uzbekistan.pdf>

63 See <http://www.rg.ru/2009/09/15/dengi.html>, http://www.bank.uz/uz/publish/doc/text48068_uzbekistan_-_lider_sredi_stran_sng_po_obemu_denejnyh_perevodov_iz_rosiyskoy_federacii

64 Studies show that the composition of rural nonfarm activity changes over time. Increases in real wages raise the opportunity cost of labour, thereby making low-return non-farm activities uneconomic. This leads to the demise of many low-return craft and household manufacturing activities and to the growth of higher-return non-farm activities, such as mechanical milling, transport, commerce, personal, health and educational services. Growing agricultural incomes attract labour into more productive, higher return rural non-farm services. In this setting, poor households benefit both directly and indirectly. Growing consumer demand translates directly into business opportunities for self-employment, particularly in rural commerce and trade. Indirectly, rising rural wage rates for unskilled labour clearly benefit the rural poor. http://www.aec.msu.edu/fs2/responses/Haggblade_World_Dev_forthcoming.pdf

65 See http://www.aec.msu.edu/fs2/responses/Haggblade_World_Dev_forthcoming.pdf

ment, these investments encourage rural nonfarm business development, as well as short-term commuting and migration strategies, both of which serve to increase rural incomes⁶⁶. Education is of particular importance in facilitating the movement of labour out of agriculture into higher productivity rural and urban jobs. As noted, agriculture continues to function as a safety net in Uzbekistan and, prior to the farm optimisation, increasing employment in agriculture suggested that the importance of this role was increasing, almost certainly at the cost of falling labour productivity in agriculture. Reversing this trend and allowing labour to move to more productive sectors through reskilling is thus also key to enhancing rural growth.

In consequence, three objectives for rural economic development policy are identified as priorities. These are:

- increasing value added in the rural economy;
- supporting rural enterprise growth; and
- promoting growth in dehqan agriculture.

Increasing value added in the rural economy. A policy of increasing value added is implicit in the Year of Rural Development through its emphasis on food processing, but other measures are also potentially contributory.

Food processing offers the best prospect of increasing value added and increasing rural incomes. It acts as dynamic element in the rural sector, by providing a means of transmitting price signals from final markets to farmers. But stimulating this subsector has been problematic in all transition countries. While general business advisory support has a role (and is potentially available to enterprises through the Information Centres established by the Chambers of Commerce), specialist assistance through *food microprocessing facilities* has shown success elsewhere⁶⁷. Food microprocessing facilities, which are in effect specialist food industry business incubators, allow new farm and non-farm enterprises to get started and eventually to be profitable. There is, however, currently only two such facilities in the transitional countries (in Georgia and Romania).

This notwithstanding, food processing in rural areas is constrained by unreliable power and water supplies. Diesel-generated electricity is likely to be financially infeasible, with technical and financial constraints also currently apparent in solar power. The improvement of power supplies through the national grid is therefore an essential underpinning for rural food processing and for rural enterprise in general, as is reliable potable water supply.

Significantly improved returns can be achieved through storage and hence by avoiding producers having to sell at the peak harvest season. Storage is normally constrained by high investment costs, which mean that refrigerated stores are only affordable by larger farmers or by companies. However, as noted, many small farmers in Uzbekistan construct and use no-energy cold stores based on evaporative cooling. These suffer higher loss rates than refrigerated stores, but this is compensated by very low operating costs. Extending use of those stores and improving their construction and operations would offer greater numbers of farmers the opportunity to achieve the price gains available from storage. And because they are affordable by small farmers, the benefits are likely to accrue to the poorer sections of the community.

The growth of cold storage is almost certainly being held back by high investment costs. Reportedly, however, there is private investment in cold storage thereby confirming the validity of initial analyses suggesting attractive returns, particularly to fruit storage. But, in the situation where access to finance remains constrained, the growth of cold storage may, in practice, rest on the development of private voluntary cooperatives which could act as vehicles for investments in cold storage and indeed in food processing.

⁶⁶ <http://www.ifpri.org/pubs/ib/ib58.pdf>

⁶⁷ Facilities of this type have emerged in the United States, Canada, Ireland and the UK as a way to stimulate business development in both rural and urban areas. See, for example, <http://www.kwestcommunications.com/Alf/> and <http://www.foodcentrewales.org.uk/English/index1.htm>

Greater value added can also be achieved through *product quality improvement and diversification*. This is normally achieved through introduction of grading and standards, which encourage farmers to improve returns through meeting grade levels. No formal grades and standards exist in Uzbekistan though prices for some products, including cherries, vary significantly according to product characteristics and, hence, in practice, there is encouragement to informal grading. In practice, diversification and quality improvement is likely to be encouraged through efforts to access new export markets fresh fruit and vegetable markets.

Product differentiation based on origin is also increasingly used worldwide as a way of achieving price premiums. This derives from significant quality characteristics (usually centred on taste) through being produced and/or processed in a particular area, usually as a result of a unique combination of topography, climate and soils. Encapsulated in the concept of 'terroir', this source of value of 'origin' has been most apparent in the European wine industry, but is also now being extended to other primary and processed products. The high quality of stone fruit in Uzbekistan and the extent to which there is already informal association between place and quality in Uzbekistan suggest that exploitation of *terroir* or origin for price premiums may be feasible. If this were achieved, there would potentially be benefits for all producers in the area concerned, including dehqan farmers.

The EU gives protection to the 'origin' value of individual products through certificates of origin⁶⁸. These prevent the place name which provides the price premium being used for products produced outside defined areas. It is premature to imagine similar legal designation and protection of origin in Uzbekistan and, instead, building a national and local brand based on origin is likely to be the most feasible approach. Fruit from Uzbekistan already has a strong image in Russian markets to the extent that produce from Turkey is sometimes apparently labelled as being from Uzbekistan in order to obtain price premiums.

In unregulated markets this will be hard to prevent, but making sure that all produce from Uzbekistan is clearly identifiable (by, for example, using standard or distinctive boxes and/or a common logo) would help build the national brand. The control of fruit and vegetable exports by two designated brokers may in practice enable this since branding on boxes can thereby be more easily controlled. Comparable actions can be taken in building local origin brands, through either unique boxes and packages or an identifiable section on the packaging and boxes used to identify the national brand. This will of course necessitate identification of the products that can be identified with a particular origin. In practice, this is often well known with a country, although product competitions based in objective and subjective assessments are also effective in revealing the best quality fruit and vegetables.

Supporting rural enterprise growth. An improved environment for rural enterprise growth is in the process of being established. This mainly derives from the emphasis on infrastructure under the Year of Rural Development, from better access to finance and from the installation of business advisory services (to be delivered by the Chamber of Commerce Information Centres). In addition, the redesignation of rural settlements as towns may, through better infrastructure and services, mean that they become growth poles.

68 The European Union system for protection of food names consists of three elements: (a) Protected Designation of Origin; (b) Protected Geographic Indication; and (c) Traditional Specialities Guaranteed. Protected Designation of Origin involves an agricultural product or a foodstuff originating in a region, place or country, the quality or characteristics of which are essentially or exclusively due to a particular geographical environment, and the production, processing and preparation of which take place in the geographical area concerned. Protected Geographic Indication indicates a link with the area in at least one of the stages of production, processing or preparation. The link with area is therefore stronger for Protected Designation of Origin. Traditional speciality guaranteed means a traditional agricultural product or foodstuff recognised by the European Community for its specific character. 'Traditional' is defined as meaning proven usage on the European Community market for a time period showing transmission between generations; this time period should be the one generally ascribed to one human generation, at least 25 years. See http://europa.eu/legislation_summaries/agriculture/food/l66044_en.htm. A full list of registered products is at <http://ec.europa.eu/agriculture/quality/door/list.html?jsessionid=92F5KnxJR7FTLGRPHxPP1SVvPzNcmJ430qpzKbhCpvDVJhwtQhYDI!169409807>

Nonetheless, success in attracting public investment financing (whether as a budget-funded investment or through public private partnerships) for utilities will have a major bearing on whether particular areas offer opportunities for enterprise since, obviously, reliable gas, water and electricity are prerequisites for enterprise growth. In this respect, it seems reasonable to imagine that *better prepared public investment proposals will have a better chance of attracting public finance*. Support to the preparation and analysis of public investment proposals in potable water and electricity should therefore enhance the public investment programming process⁶⁹. As a minimum, it should mean that proposals are not easily declined on the basis of the quality of the proposal alone. This support in public investment project preparation is likely to be most relevant to the provincial level, but may also be applicable at district level and, in a simplified form, within Mahalla committees.

Further support may also be required to *build the capacity of business infrastructure*. The track record of business infrastructure has, as in many transitional countries, been patchy (specifically with regards to incubators) and some of the facilities in Uzbekistan have closed. With major investments now having been made in business advisory services, it will be important to maximise gains from these actions and hence continuing support is likely to be required if they are to deliver what enterprises need.

Rural enterprise growth is likely to require *re-skilling and requalification*, as will significant release of labour from agriculture. Agriculture continues to serve an important role as a safety net but, in the medium and longer term, encouraging the outflow from agriculture into sectors with high labour productivity will be a source of rural (and urban) growth. In addition, labour outflows from farm optimisation may also lead to a pool of labour without useable skills. This is likely to require retraining and requalification as labour moves within and between professions. There are in practice very limited facilities for retraining and access to those in the public sector are limited to those who are able to register as unemployed. In practice, therefore, there is a need to build a retraining capability in order to reskill, but also in order to build a rural labour force capable of serving the needs of an emerging non-farm rural economy. The unit costs for retraining tend to be low and, once capability has been established, marginal costs are typically very low.

Promoting growth in dehkan agriculture. While, as noted, both private and dehkan farming offer potential for growth, the greater prospects of benefits for the poorer sections of the rural community through support to dehkan farming argue for actions in this area. This is widely recognised and it is already policy to boost the performance of the sector.

Assistance to dehkan agriculture will need to focus on extension and irrigation as ways of raising productivity and, in turn, for bringing benefits to the poorer sections of the rural community. But selecting the appropriate method of, and approach to, extension provision for dehkan farmers is problematic, with Uzbekistan facing the same questions as most other transitional countries in seeking to establish an agricultural advisory service which can reach and provide services to large numbers of small farmers. The costs of a national service are potentially high and, experience suggests,

69 The budget in Uzbekistan is in two principal parts: the central budget (encompassing central government expenditure) and local budgets, for provinces and districts. Inter-budgetary relations within this structure are entirely vertical, with distribution of funds between budgets of those parts of the administration on the same level managed by the next level up. The public investment programme, which is reflected in the central budget, is the principal vehicle for the selection and financing of public infrastructure, including that at provincial and district levels. The government prepares a rolling three-year public investment programme. In addition, in order to boost investment, the government has prepared an investment programme for the period 2009–2014. This embraces investment in industry as well as infrastructure. Districts submit proposals to the provinces which then prepare consolidated proposals for the Ministry of Economy for adjudication prior to preparation of the public investment programme and the subsequent inclusion of financing in the budget. There is then earmarking for these expenditures in local budgets. In practice, however, infrastructure provisions are usually a part of provincial, but not district, budgets because major capital projects tend to be too expensive for districts and typically embrace more than one district. Decisions on public investment priorities (and hence which should be put forward for inclusion in the public investment programme) are made by local departments of the Ministry of Economy.

most if not all dehkan farmers, and probably some private farmers, will be unable and/or unwilling to pay⁷⁰. As a result, opportunities for cost recovery will be limited.

There have been moves internationally away from the institutionalisation of extension towards provision of agricultural advice from within communities and, in particular, by individual farmers to others. This principally involves 'lead farmer' methods of extension⁷¹, where peer relations in a neighbourhood are used to distribute extension messages. Other options include private provision of extension by private banks, largely as a way of attracting rural customers, which of course involves no charge to public funds. This however rests on the existence of a private banking sector which is interested in lending in the rural sector and keen to attract customers (with extension providing a way to make these contacts).

The range of options for extension provision mean that, even if there is eventually budgetary-funded extension in Uzbekistan outside cotton and wheat production, pluralism is likely, with a range of suppliers—public, private (for profit and not-for-profit) and farmers' groups and associations⁷². As a result, locally-based actions using different methods of extension delivery tailored to local circumstances are likely to be justified. Indeed, the use of different extension models in different areas of Uzbekistan counts as valid experimentation (particularly, as in the use of lead farmers, if they are low cost) and will eventually allow the more successful models to be rolled-out more extensively.

Ensuring that the benefits of irrigation development accrue to the poor is obviously a concern given Uzbekistan's reliance on irrigation. This, as noted, requires actions at community level involving dehkan farms which are complementary to the rehabilitation and development of irrigation infrastructure. Extending the benefits of irrigation rehabilitation and development to smaller-scale water users will necessitate the mobilisation of beneficiary communities to improve water management and use and to maintain the irrigation infrastructure which provides water to the small plots. This will involve, as a minimum, inclusion of these matters in community development plans and participation of dehkan farmers, households and/or Mahalla leaders or Mahalla committee members in Water User Associations.

70 Charging for extension is a relatively recent phenomenon in Western Europe and, for example, before the 1980s, extension services in the UK were provided free of charge. Indeed, elsewhere, full cost recovery is still unusual while subsidisation is common. In Norway, for example, extension workers' salaries are met from budgetary sources, with farmers paying 50% of the direct costs for extension. In Germany, the budgetary subsidy for extension at state level (i.e. the administrative level below Federal Government) varies, but is typically around 40–50% of cost when extension is delivered by Chambers of Agriculture. Continued subsidisation may be because there is evidence that charging a fee dissuades many farmers from using extension services and tends to orient extension towards larger farmers. In countries with a developed agricultural sector, this may reflect an implicit valuation of the benefits of extension, whereas in transitional countries it probably also reflects ability-to-pay.

71 The emergence of 'lead farmers' as extension providers has been an innovative and spontaneous response to this set of circumstances. Also seen in Western Europe and North America, this model is now found in transitional countries. It typically involves a larger farmer or a cooperative providing assistance to other farmers in the surrounding area. Agricultural advice is often combined with input procurement, seed preparation, machinery services, and marketing and branding. There is sometimes, but not always, a contractual relationship between the lead farmer and beneficiaries. Importantly there is little or no cost to public funds. The motivation for lead farmers to provide this type of support to their neighbours appears to involve altruism and enhancing reputation which, in rural areas, can be important and may have indirect commercial benefits. In addition, they may also be able access increased volumes of agricultural production for marketing purposes. While 'client' farms are normally not obliged to sell through the lead farmer, many do and, accordingly, lead farmers can negotiate better prices with buyers because of larger volumes. As such, lead farmers and their clients operate as informal cooperatives.

72 Hoffmann, Volker; Lamers, John and Kidd, Andrew (2000). Reforming the organization of agricultural extension in Germany: lessons for other countries. Overseas Development Institute—Agricultural Research and Extension Network. Network paper no. 98, January.