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FARM RESTRUCTURING AND LAND AND WATER REFORM IN  
TURKMENISTAN

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## **Executive Summary**

The aim of the research was to describe and analyze the process of agrarian reforms in Turkmenistan. The main research tool was a comprehensive questionnaire-based survey of two farming groups: individual peasant (daikhan) farmers and leaseholders operating in large farm associations. The findings of this research show that Turkmenistan has implemented significant reforms in agriculture, increasing the size of the household plot sector, enabling the emergence of independent peasant farms, and most importantly individualizing to a certain extent the production arrangements in former collective farms through the introduction of leasehold contracts. Land reform works to the extent that land has largely been transferred to individual cultivation and the farm associations no longer function as production cooperatives.

Yet the observable impacts on family incomes and overall agricultural performance appear to be still very limited. The policies underlying the agrarian reforms can only be characterized as half-hearted: state orders are retained for the main cash commodities – cotton and wheat – produced by most farmers, the producers are generally bound to monopolistic state marketers and input suppliers, and the independent peasant farmers who are relatively free from these constraints receive land of very poor quality that requires major investment in reclamation. Low state-controlled prices that farmers receive for cotton and wheat are only partially offset by farm subsidies, which results in low profitability and shortage of badly needed investment funds. Moreover, land virtually cannot be transferred among individuals – neither by buying and selling nor by leasing. These restrictions on land rights create obstacles to adjustment of farm sizes for greater efficiency and introduce behavioral and legal uncertainties of tenure that are not conducive to farm investment.

It is not surprising that, in this environment characterized by pervasive government intervention in agriculture, the performance of the new leasehold sector falls far short of its potential and the new independent farmers are struggling to survive against all odds. However, despite these political constraints, the reforms are finally beginning to have some positive impact, as agriculture is starting to show signs of slow recovery from the initial transition-induced decline. To support rural development, the government should not only continue its forward-looking land reform program, but also aim to eliminate the production and price controls and allow standard land-market transactions.

## **Research Objectives**

The goal of the research project was to study the economic and institutional conditions in the agricultural sector in Turkmenistan in the initial phases of transition from a Soviet-style command system to a more market-oriented economy. Specific objectives included performance analysis of new farming structures, such as family leaseholders within farm associations and individual private farms operating outside the collectivist framework; identification of the main difficulties and constraints faced by agricultural producers of all categories; analysis of the impacts of reforms on sectoral performance and household wellbeing; review of the available organizational alternatives for agricultural production and sectoral service infrastructure based on international experience.

The problem is relevant for development because more than half the population in Turkmenistan live in agricultural areas and close to half the labor force works in agriculture. Any improvements in the productivity and efficiency of agriculture as a result of ongoing reforms are likely to have significant impacts on rural incomes and the standard of living of rural families.

Very little research is being done on Turkmenistan in general and on Turkmen agriculture in particular. While Central Asia attracts considerable attention among researchers and international organizations, other Central Asian countries are much more accessible because of the specific socio-political characteristics of Turkmenistan. Published work on agricultural reform in Turkmenistan seems to have been limited so far to two studies carried out some years ago with the participation of the Israeli principal investigator (Lerman and Brooks, 1998; Lerman and Brooks, 2001). Building on this foundation, the present research considerably expanded the scope and depth of the inquiry into Turkmen agriculture.

The innovative aspect of the research is precisely in the ability of the collaborating researchers to penetrate through the barriers that generally shield Turkmen agriculture from international scrutiny and to collect objective and fairly rigorous information about the new developments in this important sector.

## **Methods and Results**

The data for this research were collected on three different levels:

1. Country-level data: background information on legal, institutional, and economic aspects of the ongoing transformation in Turkmen agriculture, including statistical data from official sources.
2. Farm-level data: two questionnaire surveys conducted through face-to-face interviews, including a survey of 150 individual peasant farmers (conducted in 2000-2001) and a survey of 1,100 leaseholders in 110 peasant associations (conducted in 2001-2002).
3. Sector-level data: A time series of financial reports for a group of 40 farm associations for the period 1997-2000, supplemented with

course, still too early to say to what extent the findings and conclusions of the study will be applied by local policy makers and scientists.

Significant scientific impacts are clearly noticeable both on the level of acquisition of new skills and on the level of new technology. New research skills acquired during the project include ability to design survey instruments compatible with Western scientific requirements, capacity to conduct large-scale farm and household surveys, and – perhaps most importantly – exposure to Western data-analysis techniques and economic thinking.

Regarding technology, the project has enabled the Turkmen team to purchase essential computer hardware, as well as basic office equipment necessary for maintaining routine communication with the Israeli counterparts. These purchases include desktop computers for database maintenance, portable laptop computers for field work, laser printers, a scanner, a fax machine, and a photocopier. The project budget has been used to install e-mail and internet links, in addition to making it possible to acquire a sufficient number of telephone lines.

The Turkmen co-investigator's view of the scientific impacts of this USAID-funded research is presented in a letter he wrote to Ms. Elinor Slater, The Hebrew University Administration Official, with the completion of the project on November 30, 2003. The letter is attached in Annex 4. The essence of Dr. Stanchin's view is captured by the following quotation from his letter:

“...the scientific and practical assets that I have acquired during this project under the leadership of Professor Lerman simply cannot be compared to anything in my previous experience. ... At the same time, we managed to increase the scientific level and technical qualifications of the entire research group that worked in Turkmenistan under my guidance with USAID financing.”

### **Project Activities and Output**

Routine contacts between the Israeli principal investigator and the Turkmen co-investigator were maintained on a daily basis through a regular exchange of e-mail messages, reinforced, when necessary, by fax and phone calls. All issues relating to questionnaire development, sample selection, and database design, as well as many questions of data analysis were discussed and decided by exchange of e-mails. The project log contains more than 200 operational messages generated by each investigator. Because of the almost exclusive reliance on e-mail, no working meetings were held in the usual sense of this term (except for preparatory meetings that predate the award of the grant).

consolidated financial reports of the agricultural sector for the same period.

Survey design and the methodology of survey data analysis are based on previous work of the Israeli principal investigator in other CIS countries (see, e.g., Brooks et al. (1996), Lerman et al. (1998), Csaki et al. (2000)).

The full results of this research are presented in two books published simultaneously in Russian and Turkmen (240 pp. each volume). The Russian volume includes a 6-page summary of the main findings in English. Both books are distributed with this final report. A similar volume with full results in English is under preparation and will be distributed separately when completed (estimated completion mid-2004).

A condensed journal-article version of the results is attached in Annex 1. An English translation of the full table of contents of the Russian volume is given in Annex 2. The survey instruments used in the peasant farmers survey and the leaseholders survey are attached respectively in Annexes 3 and 4 (in Russian; no English version exist).

### **Impact, Relevance, and Technology Transfer**

In discussing the topics of this section, we need to distinguish between impacts on two levels:

- Policy impacts on decision makers in Turkmenistan
- Scientific impacts on participating Turkmen researchers

From the very conception of this study, the ultimate goal was to present the findings, with appropriate policy recommendations, to government officials and policymakers in Turkmenistan. To ensure maximum legitimacy and recognition, representatives of the local establishment were actively involved in the design stages and repeatedly consulted during the performance phase.

Two interim reports (in Russian and Turkmen) with the results of the preliminary analysis of independent private farmers and leaseholders were submitted in 2000 and 2001 to the relevant scientific organs and the Cabinet of Ministers of Turkmenistan. The full final report, also in Russian and Turkmen, is now being distributed to a list of some 100 officials and scientists, including provincial and district governors. Copies of the full report are scheduled to be presented to the President of Turkmenistan. An additional 100 copies (in Russian only) are being distributed to relevant experts in other countries of the CIS. In addition to the analysis of the results, the report includes an extended section with detailed research-based policy recommendations. To make the findings and recommendations more acceptable to the local audiences, the report includes didactic material on principles of market economy (prepared mainly by Dr. Stanchin on the basis of a painstaking literature review) and on world experience with agricultural institutions (adapted from Lerman (2001) and Lerman et al. (2002)). The overall intent is to maximize the impact of the study in Turkmenistan and the neighboring countries. It is, of

Face-to-face training occurred in Rehovot during the visits of Turkmen team members in Israel. Five such visits took place:

Duration of visit	Visitor	Training agenda
02/26-03/28/2001	Ivan Stanchin	Data analysis, report writing
09/29-11/16/2001	Lilya Stanchina	Data analysis
07/13-08/31/2002	Lilya Stanchina	Data analysis
03/18-04/14/2003	Ivan Stanchin	Report writing, preparation of conference presentations and Western journal articles
11/16-12/15/2003	Ivan Stanchin	Journal articles, conference presentations

The category of training activities also includes work with graduate students in Israel. In total, four graduate students worked on data analysis at various stages during the project. One of the graduate students (Rimma Gluhih) completed her master's thesis on "Private Farming in Turkmenistan: Performance and Constraints" and submitted it in March 2003 to Ben-Gurion University of the Negev (Institute for Desert Research and International School for Desert Studies). An article based on this thesis work was published in a scientific journal in the USA (see List of Project Publications for details). Ms. Gluhih is currently a PhD candidate at the Ben-Gurion University and her thesis work continues to be based on the data output of the Turkmenistan project ("Agricultural Decision and Performance Among Turkmen Leaseholders and Private Farmer").

Another graduate student (Darya Zaslaver) is extending her analysis of farm financial statements in Turkmenistan to a master's thesis in the Department of Agricultural Economics and Management, The Hebrew University.

The findings of this research project have been presented at two international conferences, one regional conference, and one local conference:

- American Agricultural Economics Association (AAEA) meetings, Montreal, July 28-30, 2003: a specially organized symposium on land and water reforms in Central Asia (Z. Lerman and I Stanchin, "Farm Restructuring in Turkmenistan: Outcomes and Constraints")
- Annual conference of the Central Eurasian Studies Society (CESS), Harvard University, Cambridge, Mass., October 2-5, 2003: a special panel on "Changing Land and Water Use Patterns in Central Asia" (Z. Lerman and I. Stanchin. "New Contract Arrangements in Turkmen Agriculture: Impacts on Productivity and Rural Incomes")
- Regional conference on "Land Management and Land Cadastre during Land Reform", Tashkent Institute of Irrigation and Farm Mechanization Engineers – TIHMSKh, Tashkent, Uzbekistan, May 16-17, 2003 (I. Stanchin and Z. Lerman. "Premises and Components of Land Reform in Turkmenistan")
- Conference on "Socio-Economic Development of Turkmenistan during Independence", Magtymkuly Turkmen State University, Ashgabat, Turkmenistan.

October 10, 2003 (I. Stanchin and Z. Lerman. "Stages of Land Reform in Turkmenistan")

All four presentations were jointly authored by the two co-investigators. Lerman presented the papers at the two international conferences (Montreal and Harvard); Stanchin presented the papers in Tashkent and Ashgabat.

**List of Project Publications** (as of December 2003)

*Interim Briefing Reports* [in Russian and Turkmen]

- I. Stanchin, *Development of Private Farms in Turkmenistan (Analysis of Survey Data)*. National Institute of State Statistics and Information, Ashgabat (2000).
- I. Stanchin, *Development of Economic Reforms in the Agrarian Sector of Turkmenistan (Intrafarm Leaseholds)*, National Institute of State Statistics and Information, Ashgabat (2001).

*Books* [see English translation of table of contents in Annex 2]

- I. Stanchin and Z. Lerman, *Agrarian Reform in Turkmenistan* [in Russian, with English summary], Center for Agricultural Economic Research, The Hebrew University, Rehovot, Israel (November 2003), 240 pp.
- I. Stanchin and Z. Lerman, *Türkmenistanda oba özgertmesi* [in Turkmen], Center for Agricultural Economic Research, The Hebrew University of Jerusalem, Rehovot, Israel (December 2003), 232 pp.

*Articles* [see Annexes 1 and 5]

- Z. Lerman and I. Stanchin, "Institutional Changes in Turkmen Agriculture: Impacts on Productivity and Rural Incomes," *Eurasian Geography and Economics*, 45(1): 18-30 (2004).
- I. Stanchin and Z. Lerman, "Premises and Components of Land Reform in Turkmenistan," Proceedings of TIIIMSKh – Tashkent Institute of Irrigation and Farm Mechanization Engineers, Tashkent, Uzbekistan (forthcoming). [in Russian and Uzbek].
- I. Stanchin and Z. Lerman, "Stages of Land Reform in Turkmenistan," Proceedings of Magtymkuly Turkmen State University (forthcoming). [in Turkmen].
- I. Stanchin, "Principles of the theory of market economy," *Altyn Asyryn Ykdysadyyeti – Economy of the Golden Age*, No. 3, pp. 34-40 (March 2003); No. 6, pp. 36-43 (June 2003); No. 9 (September 2003) [in Turkmen, Russian, and English].
- R. Gluhik, M. Schwartz, and Z. Lerman, "Land Reform in Turkmenistan: Does It Work?" *International Business and Economics Research Journal*, 2(2): 93-104 (February 2003).

*Electronic publications*

- Z. Lerman and I. Stanchin, *New Contract Arrangements in Turkmen Agriculture: Impacts on Productivity and Rural Incomes*, <http://departments.agri.huji.ac.il/economics/lerman-main.html> [see Annex 5].
- I. Stanchin and Z. Lerman, *Agrarian Reform in Turkmenistan* [selected chapters in Russian], <http://departments.agri.huji.ac.il/economics/lerman-main.html>.

## **Project Productivity**

It is the considered view of the Israeli principal investigator and the Turkmen co-principal investigator that all the project goals have been successfully accomplished. It now remains to be seen that what extent the findings and recommendations will be adopted by Turkmen policymakers.

## **Future Work**

Distribution of the report to policymakers in Turkmenistan and continued lobbying for the adoption of its recommendations is an important remaining task on the agenda for future work. The responsibility for this task will have to be shouldered by the Turkmen investigator alone.

In Israel, the project is expected to produce in 2004-2005 a PhD dissertation (Rimma Gluhih, "Agricultural Decision and Performance among Turkmen Leaseholders and Private Farmers") and an MSc thesis (Darya Zaslaver, "The New Role of the Peasant Association in Turkmenistan: A View through Financial Statements"). Both theses will lead to journal articles.

The Israeli principal investigator is synthesizing the project results and preparing them for publication in English in the form of a book. A preliminary understanding has been reached with a commercial publisher in the USA (Lexington Books) for the publication of such a volume in their series *Rural Economies in Transition* (tentatively scheduled for 2005). Full acknowledgment of USAID support will be included and USAID will receive pre-publication copies of the manuscript.

The experience gained in this project has enabled the Israeli principal investigator to develop and submit to USAID/CDR three proposals for future research work in Kazakhstan (CA23-044), Uzbekistan (CA23-045), and Mongolia (C24-007). Complementing the work in Turkmenistan, the three proposals focus on the impacts that agrarian reforms are having on productivity and rural incomes. If these proposals are approved, the Turkmen co-principal investigator will actively participate in the research work in Uzbekistan and Kazakhstan, sharing his accumulated experience with the local teams.

### Literature Cited

- Z. Lerman, C. Csaki, and G. Feder. Land Policies and Evolving Farm Structures in Transition Countries. Policy Research Working Paper 2794. World Bank, Washington, DC (March 2002);
- K. Brooks, E. Krylatykh, Z. Lerman, A. Petrikov, and V. Uzun. *Agricultural Reform in Russia: A View from the Farm Level*, World Bank Discussion Paper 327. The World Bank, Washington, DC (1996).
- C. Csaki, Z. Lerman, and S. Sotnikov. *Farm Sector Restructuring in Belarus: Progress and Constraints*, World Bank Technical Paper 475, The World Bank, Washington, DC (2000).
- Z. Lerman, "A Decade of Land Reforms: What Russia Can Learn from World Experience," *Voprosy Ekonomiki*, Moscow, No. 8: 102-117 (August 2001) [in Russian].
- Z. Lerman and K. Brooks. "Land reform in Turkmenistan," in: S. Wegren, Ed., *Land Reform in the Former Soviet Union and Eastern Europe*, Routledge, London-New York (1998).
- Z. Lerman and K. Brooks, *Turkmenistan: An Assessment of Leasehold-Based Farm Restructuring*, World Bank Technical Paper 500, The World Bank, Washington, DC (2001).
- Z. Lerman, C. Csaki, and V. Moroz, *Land Reform and Farm Restructuring in Moldova: Progress and Prospects*, World Bank Discussion Paper 398, The World Bank, Washington, DC (1998).

## **ANNEX 1. Extended Overview of Methods and Results**

Z. Lerman and I. Stanchin. "Institutional Changes in Turkmen Agriculture: Impacts on Productivity and Rural Incomes," *European Geography and Economics*, Vol. 45, No. 1, pp. 18-30 (2004)

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# Institutional Changes in Turkmen Agriculture: Impacts on Productivity and Rural Incomes

Zvi Lerman and Ivan Stanchin<sup>1</sup>

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**Abstract:** An agricultural economist and an official of Turkmenistan's national statistical agency examine the impact of a series of institutional changes during the 1990s on patterns of land ownership, farm income, crop specialization, and overall agricultural output in Turkmenistan. More specifically, the changes investigated entail the distribution of state-held irrigated land to private plots in 1990–1992, allocation of land to independent private farmers in 1993–1996, and the conversion of collective and state farms to associations of private leaseholders in 1996–1997. The study is based on official government statistics, a 2001 survey of private farmers, and a 2002 survey of leaseholders in peasant associations. *Journal of Economic Literature*, Classification Numbers: Q15, Q18, Q24. 6 figures, 4 tables, 10 references

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Turkmenistan is a huge country of 491,200 km<sup>2</sup>—the fourth largest by area in the former Soviet Union (FSU) after Russia, Kazakhstan, and Ukraine. Yet it has a relatively small (but rapidly growing) population of about 6 million people, which puts it in the group of FSU “midgets” (Armenia, Georgia, Azerbaijan, and the Baltic republics) in terms of absolute population size. More than half the population (55 percent) resides in rural areas, compared to one-third for the FSU as a whole, but only 5 percent of the country's agricultural land (1.6 million hectares) is cultivable, compared to 40 percent in the FSU. The remaining 95 percent of agricultural land in Turkmenistan is desert pastures—33 million hectares fit only for camels and flocks of karakul sheep (Goskomstat SNG, 2003). Thus, despite the vast expanses and the small number of people, the effective population density is very high, and Turkmenistan suffers from the phenomenon of “agrarian overpopulation”: there are only 0.5 hectares of arable land per rural resident, compared to the average of 2.3 hectares for the FSU.

Prior to 1991, Turkmenistan's agriculture could be characterized as a cotton monoculture. Half the cropped land was under cotton and the country, with a share of about 0.5 percent of arable land in the USSR, supplied more than 15 percent of total cotton production in

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<sup>1</sup>Respectively, Professor, Department of Agricultural Economics and Management, The Hebrew University of Jerusalem, Rehovot, Israel and National Institute of Statistics and Information, Ashgabat, Turkmenistan. This paper is part of a research project supported under Grant No. TA-MOU-98-CA17-011 of the U.S.-Israel Cooperative Development Research Program, Economic Growth, U.S. Agency for International Development. The data in the paper derive from official statistical sources, a 2001 survey of private farmers, and a 2002 survey of leaseholders in peasant associations. The surveys encompassed 144 private farmers (14 percent of the farmers reporting to Turkmen statistical organs in 2000) and 1,100 leaseholders (0.3 percent of all leaseholders in the country). The private farmers were sampled at random from a national list of about 1,000 farms reporting to statistical organs. The leaseholders were sampled by a two-stage procedure: 110 peasant associations were selected at random from a national list of 592 associations and 10 leaseholders were then sampled at random in each association. Both surveys were conducted in face-to-face interviews by independent private interviewers using detailed multi-part questionnaires. The authors wish to thank anonymous reviewers for insightful comments.

the Soviet Union (Goskomstat SNG, 1994, Goskomstat SSSR, 1991). Because of its special role as a cotton producer, Turkmenistan was a beneficiary of major investment projects designed to increase the irrigated area. The agricultural sector at that time was organized according to the standard Soviet model: some 600 large collective and state farms controlled the bulk of agricultural land, whereas the rural population cultivated in its spare time hundreds of thousands of small household plots on 55,000 hectares, or about 3 percent of irrigated land (Lerman and Brooks, 2001). The farm structure has changed dramatically since then, as independent Turkmenistan has begun to implement various agrarian reforms consistent with its interpretation of a market-oriented economy.

### CHANGING FARM STRUCTURE

The main change in the context of the present study is the shift from collective farming to a more individualized agriculture.<sup>2</sup> The first stage (1990–1992) involved the distribution of previously state-held irrigated land to rural families, which more than doubled the total size of the household-plot sector to 133,000 hectares. The second stage (1993–1996) involved a national program for allocation of land to independent private farmers, who were allowed to engage in commercial agriculture outside collectivist frameworks. In 2002 there were more than 5,000 such private farms in Turkmenistan, operating on 81,000 hectares.<sup>3</sup> The third stage (1996–1997), involved the transformation of former collective and state farms into associations of leaseholders. So-called “peasant associations” (*daikhan berleshik* in Turkmen) were summarily organized by presidential decree to replace the traditional collective and state farms, and each association was instructed to parcel out its large fields to individual leaseholders (typically heads of families).

We view the creation of leaseholder-based associations as the most radical step of the land reform program because of its scope. The reforms aimed at household plots and private farms, however important, were marginal in terms of the amount of land encompassed. The transition to leasehold contracts, on the contrary, involved more than 350,000 rural family units and 1.5 million hectares of arable land, i.e., practically the entire rural population and 90 percent of arable land in Turkmenistan. The current structure of the farm sector in Turkmenistan is summarized in Table 1.

### THE ROLE OF PEASANT ASSOCIATIONS AND INSTITUTIONAL ARRANGEMENTS FOR LEASEHOLDERS

Initially, when peasant associations were created by fiat in 1995,<sup>4</sup> they potentially offered yet another example of what generally is known in FSU as a “change of the sign on the door”—a formal organizational transformation without any substantive internal change. Yet the situation in Turkmenistan seems to be moving in the direction of genuine structural

<sup>2</sup>For a detailed discussion of the legal framework for these changes and the implementation of reforms to 1995, see Lerman and Brooks (2001); for an update through 2001, see Stanchin and Lerman (2003). For a fascinating, although not entirely objective account (in English) of reforms as seen through Turkmen eyes, see MinEcon (1999).

<sup>3</sup>The statistics on private farming in Turkmenistan are quite ambiguous: as of 2002, there were 5,176 private farmers according to land allocation records, but only 1,815 officially registered farmers and 868 “active farmers” reporting the results of their operations to the state statistical organs (Stanchin and Lerman, 2003).

<sup>4</sup>Basic legislation providing for the elimination of traditional collective and state farms and establishment of peasant associations was adopted in June 1995, and leasehold enabling resolutions were adopted in December 1995. However, the transition to intrafarm leasehold relations within the associations began only in 1996 and in some cases in 1997.

**Table 1.** Structure of the Farm Sector in Turkmenistan, 2002<sup>a</sup>

	Number	Land, ha	Average size, ha
Associations	587	33,900,000 <sup>b</sup>	—
Leaseholders	357,000	1,500,000 <sup>c</sup>	4
Peasant farms	5,200	81,000	16
Household plots	616,000	133,000	0.2

<sup>a</sup>All areas are approximate.

<sup>b</sup>Includes pastures.

<sup>c</sup>Arable land.

Source: Stanchin and Lerman, 2003 based on official data from the National Institute of Statistics of Turkmenistan.

change since 1996–1997. Although the number of associations (nearly 600) is virtually the same as that of collective and state farms in the past, and they still legally control most of the agricultural land resources, the associations, unlike the *kolkhozy* and *sovkhozy*, have been transformed into mere organizational shells, or umbrellas, for the farming operations of individual leaseholders, without significant commercial activity of their own. By 1997, associations were reporting virtually no “collective” sales: all sales reported for statistical purposes through associations derive from the individual activity of their leaseholders. Furthermore, the associations have lost much of their fixed asset base (machinery, equipment, livestock), while inventories, receivables, and payables—standard signs of commercial activity—have dwindled almost to nothing.<sup>5</sup>

What is the role of the associations today? First, they are the “guardians” or “administrators” of state-owned agricultural land that is distributed to leaseholders for cultivation.<sup>6</sup> All leaseholders interviewed in the 2002 survey reported that they had a land-lease contract with the association (Fig. 1). Second, the associations are the authority responsible for maintaining rural infrastructure in the villages (similar to the role played by municipalities in urban areas)—and they receive a certain payment from the leaseholders (a percentage of production revenue) for these services. Third, and most problematic of all, they are the conduit for transmitting state orders to the leaseholders and enforcing compliance.

The continuing existence of state orders in Turkmenistan is a legacy of the Soviet centrally planned system. Turkmenistan has liberalized much of its agricultural production and food trade, but the main strategic commodities—cotton and wheat (as well as the much less important rice)—remain subject to state orders. As in the past, production targets for wheat and cotton are assigned to large farming units—peasant associations in this case: the association manager divides the overall quantities among the leaseholders so that the full target is met (or exceeded). The associations do not sell this wheat and cotton for their leaseholders, as a marketing cooperative would normally do in the West. Rather the sale contract is directly

<sup>5</sup>The value of associations’ fixed assets in 2000 had declined by 40 percent since 1997, inventories decreased by 86 percent, accounts receivable by 72 percent, and accounts payable and loans by 90 percent. This information is based on an examination of aggregate financial statements of farm associations for the period 1997–2000, filed with the Ministry of Agriculture in Ashgabat. The percentage changes were calculated from time series of balance-sheet data in constant prices after adjusting the reported nominal figures for inflation.

<sup>6</sup>For this reason, the peasant associations with all their leaseholders are classified in Turkmen statistics as the “state sector” (instead of the term “public” or “collective” sector used in the past). The “private sector” includes private farms and household plots combined.

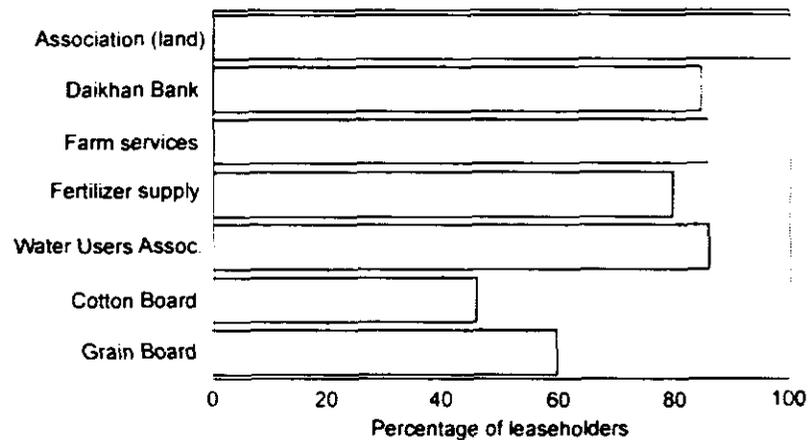


Fig. 1. Contracts signed by leaseholders with state-controlled marketers and suppliers (percentage of respondents). *Source:* Survey of leaseholders (2002).

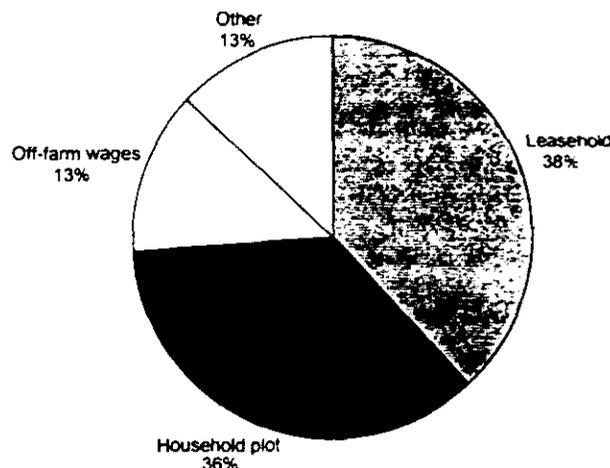
between the leaseholder and the state marketing organization, which sends trucks to collect the harvested crop and sometimes even tractors and combines to help with harvesting. The associations do not act as supply cooperatives either: leaseholders get all the inputs they need from state suppliers on the basis of individual contracts signed according to production targets.

Finally, since the associations are neither marketers nor input suppliers, they cannot act as credit cooperatives for their leaseholders. All financial transactions in this system are handled by a state-owned agricultural bank, Daikhan Bank, which has a branch in every association, serving all the local leaseholders. The system is organized on the basis of "passbooks," so that very little cash changes hands. Each leaseholder's production quota is recorded in the "passbook," which also shows the total credit for revenue that the leaseholder will eventually receive for deliveries of wheat and cotton and the total debit for inputs that he/she is entitled to receive from the state. The revenue is calculated on the basis of fixed state prices, which are adjusted every year but are always far below the world market prices.<sup>7</sup> The cost of inputs is also based on fixed state prices net of a hefty 50 percent subsidy for all inputs used in the production of state orders. The input debits, plus statutory management charges that go to the association, are offset against the revenue and the leaseholder keeps only the "profit."

This highly bureaucratized system applies only to state orders (i.e., wheat, cotton, and rice), but it is designed in such a way that the leaseholder must deliver the entire output of these commodities to state marketers: otherwise there will be no credit entry in the bank account to offset the debits for inputs. Commodities not subject to state orders, such as vegetables, milk, or eggs, are generally produced under different institutional arrangements on the family's household plot (not on the leasehold) and are sold in the nearby market or through occasional private traders: there are no state marketers to deal with these commodities, and the association is not geared to provide cooperative marketing services.

The complex system of relationships between leaseholders and various state organizations is reflected in Figure 1, which shows the percentage of respondents in the 2002

<sup>7</sup>See Lerman and Brooks (2001) for an analysis of the agricultural taxation effect arising from these price gaps.



**Fig. 2.** Structure of leaseholder family income (total income of surveyed leaseholders was 13.4 million manat). *Source:* Survey of leaseholders (2002).

leaseholders survey who signed contracts with input suppliers, product marketers, and the bank. Over 80 percent of respondents are bound to the state by credit and input supply arrangements. The percentages for marketing contracts are deceptively low, because leaseholders generally specialize either in grain or in cotton. The combined frequency of contracts with the Cotton Board and the Grain Board is accordingly around 100 percent (actually slightly more than 100 percent, reflecting the existence of some mixed grain cotton farming). This means that all leaseholders are bound by marketing agreements to the state, with no independent commercial activity in the two strategic commodities.

#### THE ROLE OF THE HOUSEHOLD PLOT

Leaseholders operate in a two-tier farming system. In one tier, they have 4 hectares of irrigated land leased from the peasant associations, where they grow mainly wheat or cotton for delivery to the state. In the second tier, they have a small household plot of about 0.25 hectares on which they grow vegetables and keep some private livestock. The output from the household plot is in part consumed by the family and in part sold in the open market, without any intervention from the state. The income of most rural families thus includes cash income from the leasehold operation plus cash and in-kind income from the household plot. In the 2002 survey, these two components were evenly balanced and jointly accounted for 75 percent of family income (Fig. 2). The remaining 30 percent represents cash income from off-farm salaries of family members working outside the household, pensions, social transfers, etc. The household plot is thus a very important source of income for rural families, accounting for more than one-third of total income in value of own farm products consumed by the family and in cash from product sales. The enlargement of household plots in 1990–1992 was thus a very important step for the well-being of the rural population.

#### PRIVATE FARMERS AND THEIR LAND

In addition to leaseholders and their household plots, Turkmen agriculture has another relatively new component that began to emerge only in 1993. These are independent private

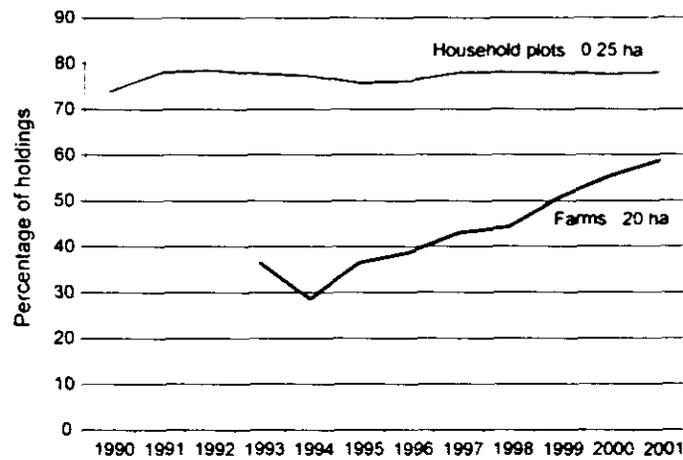


Fig. 3. Share of cultivable land in household plots and private farms, 1999–2001. *Source:* Calculated from Stanchin and Lerman (2003).

or peasant farms that operate outside associations on land grants received directly from the state—not in the form of a lease from the association. The land in these private farms increased from zero in 1992 to more than 80,000 hectares in 2002,<sup>8</sup> and it is approaching the total land area in household plots (130,000 hectares). There are 5,000 private farmers in Turkmenistan, and an average private farm is about 16 hectares—much larger than the average leasehold in associations (4 hectares).

Yet there is a serious problem with the quality of land in private farms. The declared government policy is to give private farms unirrigated, uncultivable land and thus force them to reclaim desert land at their own expense. In effect, the government has relinquished the responsibility for what was traditionally regarded as a public good in the Soviet era and today relies on private individuals to invest in land reclamation. The poor quality of land in private farms is clearly illustrated by Figure 3, which shows that in 1993–1995 cultivable land was only 30–40 percent of the holdings, compared to 80 percent in household plots. Yet it seems that the private farmers are doing exactly what the government intended: they are actively reclaiming desert land on their farms and the share of cultivable land has steadily increased 60 percent today (Fig. 3; Stanchin and Lerman, 2003).<sup>9</sup> The picture that emerges from the 2001 survey of private farms is consistent with these national figures: among the respondent farms, 31 percent of the land was irrigation-ready from the start, another 37 percent was reclaimed by the farmers during their new tenure, and 32 percent is still unused and remains to be “opened” for cultivation in the future.

### OBSERVATIONS ON PRIVATE LAND OWNERSHIP IN TURKMENISTAN

Leaseholders receive land in use rights from the state through the intermediation of the local peasant association. The lease term is usually 5–10 years (according to responses from

<sup>8</sup>See Figure 4 and the discussion in the next section of the paper for details of the developments between 1994 and 2002.

<sup>9</sup>The area of irrigated land in Turkmenistan increased from 1,744.1 thousand hectares in 1994 to 1,808.4 thousand hectares in 2001. Much of the added 64 thousand hectares resulted from the reclamation efforts of private farmers

the 2002 leaseholders survey), but the production targets are set each year. The lease is non-transferable: if a family cannot farm, the leasehold reverts to the association for reassignment. Private farmers receive land directly from the state. Initially, the land is granted in use rights, but once the farmer has proved his willingness and ability to farm successfully (within two to three years), the land is transferred into "private ownership" and the farmer receives a special "land ownership certificate" from the authorities (sometimes directly from the President).<sup>10</sup>

We advisedly refer to "private ownership," because the concept of private ownership in Turkmenistan is quite different from the accepted notion in market economies. On paper, the 1992 constitution of independent Turkmenistan recognizes private land ownership, yet the Land Code, which is the permanent law that interprets the constitution on land matters, elaborates: "Citizens of Turkmenistan have the right to receive *in private ownership with lifetime inheritable possession* land for peasant farms and subsidiary household farms. . . . Those wishing to establish a peasant farm will lease land or receive land *in private ownership with the right of lifetime inheritable possession*. . ."<sup>11</sup> Thus, private ownership is legally equated with lifetime inheritable possession—a traditional Soviet form of land tenure. "Privately owned" land in Turkmenistan is non-transferable: it may not be sold, given as a gift, or exchanged; only short-term leasing is allowed under very special conditions. In practical terms, there is no difference between private farmers who get land in use rights and those who receive a "land ownership certificate" from the state. They have an asset that they can use, but not dispose of in any way.

In addition to non-transferability, there is another unusual twist to "private" land ownership in Turkmenistan. "Private" land ownership is granted conditionally, and the state reserves the right to confiscate "private" land if the farmer's performance does not meet the expectations of the regional authorities (Decree, 1993). During the early phases of reform (up to 2000), the confiscation option was generally not enforced, so that both the number of private farms and their land holdings steadily increased. In January 2000, there were 7,066 private farms in Turkmenistan with 115,000 hectares, up from 750 farms with 28,400 hectares in 1993. Between 2000 and 2002, however, the number of private farms decreased to 5,176 and the land holdings dropped to 81,100 hectares (Fig. 4). Thus, within two years, private farms lost 30 percent of their land area: the state had begun to enforce Article 6 of the 1993 Presidential Decree, taking back "private" land from farmers who had not farmed actively (or satisfactorily) in the previous two years. This, of course, is an unthinkable policy in a market economy, yet in Turkmenistan policymakers justify its enforcement by the acute scarcity of cultivable land and the need to ensure that no cultivable land is left idle.

### SOME COMPARISONS OF LEASEHOLDERS AND PRIVATE FARMERS

The most striking difference between leaseholders and private farmers is not in farm size (4 hectares in leaseholds versus 16 hectares in private farms): it is in the fact that leaseholders are subject to state orders whereas private farmers are allowed to grow whatever they wish. This is clearly reflected in the specialization of farms in the two groups (Table 2):

<sup>10</sup>More details of these procedures are given in Lerman and Brooks (2001) and Stanchin and Lerman (2003)

<sup>11</sup>As quoted in Lerman and Brooks (1998). The primary source is Article 54 of the draft land code obtained (in unpublished typescript) from the State Land Committee of Turkmenistan. A land code has not yet been enacted in final form, with the only extant legislation on land ownership being vague general statements from the Constitution and 1998 Civil Code.

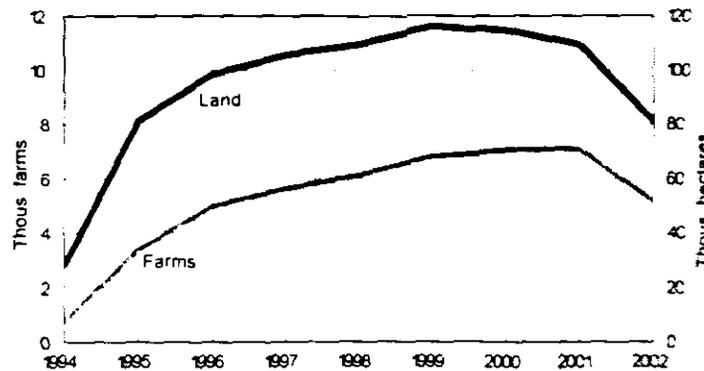


Fig. 4. Development of private farms: Number of farms and land in private farms, 1994–2002. Source: Stanchin and Lerman (2003).

Table 2. Specialization at the Farm Level (percentage of respondents)

Commodity	Leaseholders	Private farms
Cotton only	36	8
Wheat only	50	43
Cotton + wheat	9	15
Other <sup>a</sup>	5	34

<sup>a</sup>Primarily livestock.

Source: Survey of leaseholders (2002) and survey of private farmers (2001).

leaseholders produce either cotton or wheat, with less than 10 percent of farms producing both cotton and wheat and only 5 percent have diversified into other commodities. Among private farmers, on the other hand, 15 percent produce both cotton and wheat, whereas fully 34 percent produce commodities other than cotton and wheat. These other commodities are largely livestock products, which are very seldom reported by leaseholders. Nationally, the product mix of leaseholders in associations is 85 percent crops and only 15 percent livestock.<sup>12</sup> Livestock production is concentrated mainly in the individual sector—private farms and household plots, where the product mix is diametrically opposite: 25 percent crops and 75 percent livestock.

The difference in institutional arrangements for leaseholders and private farmers is also reflected in different access to marketing channels. Leaseholders sell primarily to the state, which is consistent with their obligation to deliver wheat and cotton under state orders.<sup>13</sup> Private farmers use different channels for different products (Table 3). Vegetables, meat, and milk—the products for which no state procurement exists—are sold in the open market.

<sup>12</sup>National-level data on the product mix for leaseholders versus the individual sector were derived from NatStat (2002, 61, 65, 67, 79-80).

<sup>13</sup>According to the 2002 survey of leaseholders, they sell 88 percent of their output directly to the state, 9 percent through the associations, and only 3 percent on the open market.

**Table 3.** Sales Channels for Farm Products of Private Farmers (percentage of respondents)

Commodity	Channel	Percent
Cotton	State	100
Wheat	State	71
	Market	21
Vegetables	Market	80-100
Meat, milk	Market	80-90

*Source:* Survey of private farmers (2001).

**Table 4.** Leaseholders' Evaluation of the Situation under the New Leasehold Arrangements Compared to the Collective Past (percentage of respondents)

	Better than before the reforms	No change	Worse than before the reforms
Motivation to work	85	11	4
Standard of living	72	23	5
Future prospects	90	6	4

*Source:* Survey of leaseholders (2002).

Cotton is sold to the state: in principle, private farmers have no obligation to sell to the state, but there are no alternative sale channels for cotton (direct exports are prohibited) and they are obliged to sell to the state cotton board. Wheat is again in a different category: the state takes approximately 70 percent of the harvest, but a respectable 20 percent is sold through alternative channels. There is a very clear lesson behind these numbers: if producers are given an opportunity to choose between marketing channels, they will indeed exercise their right of choice, presumably optimizing sales income.

Despite the state orders and the constraints on individual choice, leaseholders appear to be quite happy with the new arrangements (Table 4).<sup>14</sup> Most of the respondents in the 2002 survey reported an increase in their motivation to work (compared with the situation in the former collective) and an improvement in their standard of living. Practically all of the respondents are optimistic about their future prospects under the new system. It can be argued, of course, that attitude questions of this kind would never elicit a truthful answer given the socio-political environment of Turkmenistan and local cultural traditions. Yet we do observe respondents that report indifferent and even negative views of reform outcomes. The enthusiasm in the first column of Table 4 may be exaggerated, but given the large size of the sample, positive views cannot be dismissed as totally spurious. In terms of popular attitude the agricultural reforms appear to be a success.

#### OUTCOMES OF AGRICULTURAL REFORM

Proper assessment of the impacts of agricultural reforms requires detailed comparisons of the performance of the three institutionally different components of Turkmen agriculture:

<sup>14</sup>Unfortunately no such data are available for private farmers

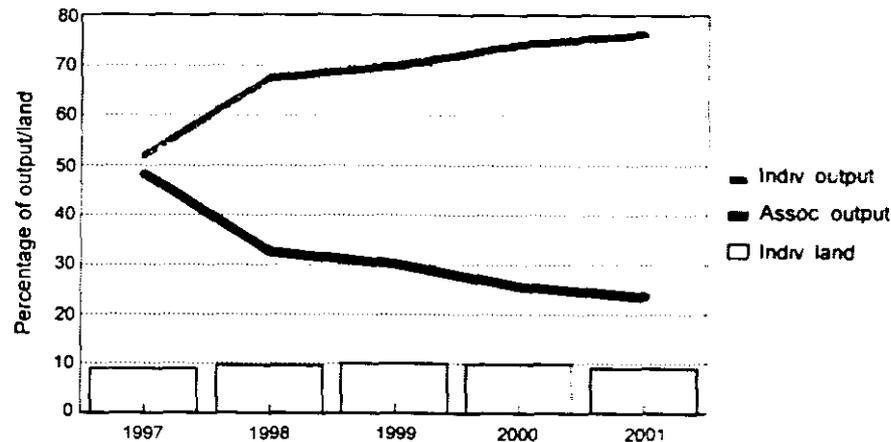


Fig. 5. Peasant associations and individual farms: Share of agricultural output and arable land, 1997–2001. Source: Calculated from Stanchin and Lerman (2003).

leasehold farms, household plots, and private farms. Unfortunately, neither national statistics nor our surveys provide the full information necessary for this kind of analysis. National statistical data only enable us to make a crude performance comparison between the “association sector” (i.e., leasehold farms) and the “individual sector” (mainly household plots, but also private farms). The results of this comparison are presented in Figure 5, where two features are worth noting. First the share of the individual sector in agricultural output increases over time, while the share of the associations decreases despite the transition to leasehold arrangements after 1996. In 1997, the first year of the main farm-structure reforms, each sector accounted for one-half of gross agricultural output. Five years later, in 2001, the individual sector produces 75 percent of agricultural output, while the association sector is down to 25 percent.

Another noteworthy feature is the ratio of output to land in the two sectors. The individual sector (household plots and private farms combined) control about 10 percent of cultivable land, on which they produce 75 percent of total output. Association leaseholds account for 90 percent of cultivable land, and yet they produce only 25 percent of total output. The relative productivity of land in the individual sector thus appears to be 27 times higher than in the association sector.<sup>15</sup>

Neither feature is unique to Turkmenistan. Similar trends are consistently observed in all former Soviet republics, where in line with accepted theoretical considerations we tend to attribute the performance differences to different incentives for individual farmers and workers of former collectives. Yet the institutional setting in Turkmenistan is unique in that the former collectives have shifted to individual leasehold arrangements. As a result,

<sup>15</sup>The actual productivity gap is probably smaller than what we measure on the basis of raw output and land shares, because household plots are known to be using more land than is officially reported (e.g., communal land or land in informal tenure arrangements). Moreover, land is just one of the factors of production and high partial productivity of land does not necessarily imply high productivity of the entire bundle of inputs (including, for instance, animal feed siphoned from the “collective” farm). While productivity of land is observed to be higher in the individual sector in all CIS countries, the jury is still out regarding total factor productivity and many researchers continue to study this interesting issue (see, e.g., Lerman et al., 2004).

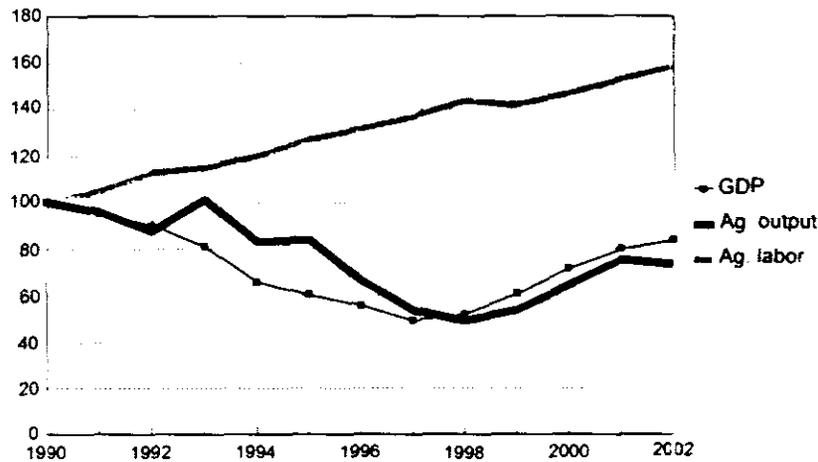


Fig. 6. GDP, agricultural output, and agricultural labor, 1990–2002 (1990 = 100). *Source:* Authors' calculations from data provided by the National Institute of State Statistics and Information of Turkmenistan, Ashgabat. For full time series see <http://departments.agri.huji.ac.il/economics/lerman-main.html> (click on "Statistical Database of Transition Countries").

leaseholders presumably face incentives that are much closer to the incentives of individual producers than the incentives of workers in former collective farms in the rest of the FSU. We would have expected the leaseholders to achieve productivity levels that are much closer to the individual sector and thus give a strong boost to Turkmen agriculture. This obviously has not occurred thus far.

The only possible explanation, in our view, lies in the sharp differences in the institutional production and marketing arrangements between the individual sector and the leasehold sector. Individuals are free to decide what to produce and how to sell, and individual farming is flourishing thanks to private initiative. Leaseholders are strictly bound by state orders on the relatively large areas that they receive from the association, and there is not much room for private initiative. It is particularly important to note that the second tier of leasehold farming—the household plots—is not subject to these restrictions and household plot production seems to be flourishing (as part of the individual sector statistics) while the association sector is struggling. We hope that future work will enable us to disentangle the performance of leaseholds and household plots in the same rural families participating in the 2002 survey.

Switching to a still broader national view, we see in Figure 6 that both agricultural output and GDP declined sharply after 1990. Some signs of recovery appeared in 1997–1998, after the introduction of significant reforms in agriculture. We would hope that the incipient recovery is indeed linked with the impact of agricultural reforms, but only the future will indicate whether this is the case. Figure 6 incidentally reveals another important feature of rural Turkmenistan: the labor force employed in agriculture has steadily increased over time, both because of high natural increase of the rural population and because of lack of alternative employment opportunities outside of agriculture. The combined effect of increasing labor and decreasing agricultural output has resulted in a dramatic reduction in the overall productivity of Turkmen agriculture.

The changes induced by farm-structure reforms are also reflected in sectoral output. Individual farms emphasize livestock in their product mix to a much greater extent than association leaseholders, and the sharp increase in the share of individual farms in agricultural output has led to an overall increase in the importance of livestock. The share of livestock in the total value of agricultural output increased from 50 percent in 1997 to nearly 60 percent in 2001 (Stanchin and Lerman, 2003). The share of crop production declined correspondingly, reflecting the decline in the contribution of the wheat- and cotton-producing association sector. The crop mix also has changed dramatically over the past decade, as presidential policies began to emphasize grain production in the interest of self-sufficiency (Lerman and Brooks, 2001). Areas cropped to wheat quadrupled from less than 200,000 hectares in 1990 to 800,000 hectares in 2001–2002. The increase in land under wheat was achieved by reducing fodder crops, while cotton, Turkmenistan's export staple, continued to be cultivated on 600,000 hectares throughout the entire decade.

Wheat yields do not appear to have suffered as a result of the relentless expansion of the areas cultivated to wheat: they have remained at a level of about 2 ton/ha during the entire decade and wheat production grew proportionately to the increase in cropped area (from about 0.5 million tons in 1990–1991 to 2.0 million tons in 2001–2002). Cotton productivity, on the other hand, was adversely affected by deteriorating drainage and rising soil salinity, which depressed irrigated cotton yields from more than 2 ton/ha in the early 1990s to about 1.5 ton/ha in 2001–2002. Cotton production therefore declined from a peak of nearly 1.5 million tons in 1990–1991 to about 1.0 million tons in 2001–2002. Cotton thus has lost its monoculture status in Turkmenistan: it has been overtaken by wheat, which is now the dominant crop in terms of both cropped area and physical output (Lerman and Brooks, 2001; Stanchin and Lerman, 2003). These changes, however, were driven by government self-sufficiency policies and deteriorating soil conditions; they are not directly related to market forces (such as changes in world prices for wheat and cotton) or farm-structure reforms discussed in this article.

## CONCLUSION

Turkmenistan has implemented significant reforms in agriculture, increasing the size of the household plot sector, enabling the emergence of independent private farms, and most importantly individualizing to a certain extent the production arrangements in former collective farms through the introduction of leasehold contracts. Yet the policies underlying these reforms can only be characterized as incomplete: state orders are retained for the main cash commodities (cotton and wheat), the producers are generally bound to monopolistic state marketers and input suppliers, and the independent private farmers who are relatively free from these constraints receive land of very poor quality that requires major investment in reclamation. It is not surprising that the performance of the new leasehold sector is far short of its potential and the new independent farmers are struggling to survive against all odds. However, despite these political constraints, the reforms are finally beginning to have some positive impact, with agriculture slowly starting to recover from the initial transition-induced decline.

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**ANNEX 2. English translation of the table of contents of  
*Agrarian Reform in Turkmenistan*, by I. Stanchin and Z. Lerman,  
Center for Agricultural Economic Research, The Hebrew University,  
Rehovot, Israel (2003)**

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**II. A Decade of Reforms and Progress toward a Market Economy in CIS and CEE**

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  - Production on household plots
  - Income, finances, standard of living
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## **Conclusions and Recommendations**

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**ANNEX 3. Survey instruments for private farmers' survey (2000-2001)**  
**[in Russian]**



## РАЗДЕЛ А. СЕМЬЯ

## А.1. Какой состав Вашей семьи?

Член семьи по отношению к руководителю хозяйства	Пол		Возраст	Образование Коды:	Занятость в дайханском (фермерском) хозяйстве Коды:	Род занятий вне хозяйства Коды:
	М	Ж				
1. Руководитель хозяйства				высшее 1 незаконченное высшее 2 среднее специальное (техникум) 3 профессионально-техническое (ПТУ, СПТУ) 4 общее среднее 5 неполное среднее 6 учащийся 7 нет образования 8	полностью занятый 1 частично занятый 2 совсем не занятый 3	Руководитель, заместитель руководителя предприятия 1 Специалист среднего звена 2 Квалифицированный рабочий 3 Неквалифицированный рабочий 4 Служащий 5 Выборные органы местного управления 6 Домохозяйка 7 Пенсионер 8 Ищущий работу 9
2. Жена (муж)						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
ИТОГО						

## А.2. Где живет Ваша семья?

непосредственно на территории дайханского (фермерского) хозяйства 1  
 в селе, крестьянского объединения, где находится хозяйство 2  
 в другом селе 3

в городском центре 4  
 другое 5

## РАЗДЕЛ В. ОБРАЗОВАНИЕ ДАЙХАНСКОГО (ФЕРМЕРСКОГО) ХОЗЯЙСТВА

### В.1. Почему Вы решили стать фермером?

(назовите три наиболее важные причины)

хочу больше зарабатывать	1
хочу быть независимым, работать без начальников	2
хочу обеспечить будущее своим наследникам	3
хочу реализовать свои творческие возможности, профессиональные знания и опыт	4
хочу повысить престиж семьи, заслужить уважение односельчан	5
был вынужден вести отдельное хозяйство, так как коллективное хозяйство не обеспечивает необходимый уровень доходов	6

### В.2. Где Вы работали до того, как стали фермером?

в сельскохозяйственном предприятии	1
в промышленном (строительном) предприятии	2
в учреждении социальной сферы	3
в органах местного управления	4
другое	5

### В.3. Какую должность Вы занимали до того как стать фермером?

руководитель, заместитель руководителя	1
специалист среднего звена (инженер, агроном, бригадир)	2
квалифицированный рабочий	3
неквалифицированный рабочий	4
служащий из числа административно-управленческого персонала (машинистка, экономист, бухгалтер, счетовод, кассир и др.)	5

### В.4. Если Вы работали раньше в сельскохозяйственном предприятии, то что Вы получили при выходе из него?

ничего не получил	1
получил земельный участок для производственных целей	2
получил приусадебный земельный участок	3
в аренду с правом выкупа	4
скот технику	5

### В.5. В чем проявляется самостоятельность фермера?

(назовите три наиболее важные причины)

в планировании собственного производства	1
в закупке для себя средств производства	2
в наличии своего банковского счета	3
в возможности получения кредита	4
в наличии собственного административного штата (руководитель, бухгалтер)	5
в самостоятельном найме и увольнении своих работников	6
самостоятельно реализовать произведенную продукцию	7
в самостоятельном сотрудничестве с сервисными службами	8
в самостоятельном распоряжении результатами своего труда	9

### РАЗДЕЛ С. ЗЕМЛЕПОЛЬЗОВАНИЕ

С.1. В каком году Вам выделили землю: в собственность  г., в аренду  г.

С.2. Общая площадь земель в Вашем дайханском (фермерском) хозяйстве на данный момент?  га

Земельные угодья	а) Всего, га	в том числе	
		б) собственность	в) аренда
1-пашня			
2-сады			
3-виноградники			
4-пастбища			
5-прочие земли			
6-итого			

С.3. На сколько лет предоставлена земля в аренду?  лет

С.4. Имеются ли у Вас документы на право пользования землей? ( акт, свидетельство и т. п.)

- Акт, подтверждающий право собственности на землю 1
- Свидетельство, подтверждающее право на аренду земли 2
- Нет, не имею 3

С.5. При создании дайханского (фермерского) хозяйства Вам были выделены земли:

- 1- из государственного фонда  га
- 2- из фонда крестьянского объединения  га

С.10. Какая площадь земли освоена Вами под орошаемое земледелие собственными силами после их предоставления?  га

С.11. Какие затраты (в текущих ценах) Вы имели по освоению земель в Вашем хозяйстве?  млн. манатов

С.6. При создании дайханского (фермерского) хозяйства Вам были выделены:

- 1- ирригационно подготовленные земли удовлетворительного мелиоративного состояния  га
- 2- ирригационно подготовленные земли, нуждающиеся в мелиорации  га
- 3- неподготовленные земли  га

С.7. Разработан ли на Вашу землю:

- Проект организации территории 1
- План использования земель 2
- Проект строительства оросительной и мелиоративной сети 3
- Проект планировки и застройки производственной зоны 4
- Бизнес-план 5

С.8. Какова сметная стоимость комплексного обустройства земель Вашего хозяйства по разработанной проектной документации?

год разработки  г.  тыс.долл.США  
 млн. манатов

С.9. Довольны ли Вы качеством своей земли?

- да 1
- нет 2

C.12. Какая площадь пашни нуждается в коренном мелиоративном улучшении?

\_\_\_\_\_ га

C.13. Имеете ли Вы возможность в ближайшие 3 года проводить работы по коренному мелиоративному улучшению орошаемых земель?

да-1                      нет-2

C.14. Уверены ли Вы, что сохраните за собой свою собственную землю в будущем?

да - 1                      нет - 2                      не знаю - 3

а) если ДА, то на какой площади?

га

б) если НЕТ, то по какой причине? (укажите одну из наиболее важных причин)

- |  |   |
|--|---|
| нет острой производственной необходимости            | 1 |
| нет свободных денежных средств                       | 2 |
| не располагаете необходимыми техническими средствами | 3 |
| нет специализированных подрядных организаций         | 4 |
| другое   | 5 |

C.15. Как Вы относитесь к купле-продаже земли?

одобряю - 1                      не одобряю - 2                      затрудняюсь ответить - 3

C.16. Намерены ли Вы и в будущем заниматься дайханским (фермерским) хозяйством?

да - 1,                      нет - 2,                      не думал об этом - 3

## РАЗДЕЛ D. РЕСУРСЫ ХОЗЯЙСТВА И УСЛУГИ

D.1. Сколько человек в среднем постоянно заняты работой в Вашем хозяйстве в течение года?

из них: члены Вашей семьи  
наемные работники

D.2. Какие производственные ресурсы Вы имеете в личной собственности?

Наименование	Коды:	Количество	Остаточная балансовая стоимость, млн. манатов	Наименование	Коды:	Количество	Остаточная балансовая стоимость, млн. манатов
--------------	-------	------------	---	--------------	-------	------------	---

животноводческие помещения, кв.м	01	<input type="text"/>	<input type="text"/>
другие производственные постройки, кв.м	02	<input type="text"/>	<input type="text"/>
сельскохозяйственную технику, единиц	03	<input type="text"/>	<input type="text"/>
в том числе:			
трактора	031	<input type="text"/>	<input type="text"/>
мини-трактора	032	<input type="text"/>	<input type="text"/>
грузовые автомобили	033	<input type="text"/>	<input type="text"/>
плуги	034	<input type="text"/>	<input type="text"/>
культиваторы	035	<input type="text"/>	<input type="text"/>
сеялки	036	<input type="text"/>	<input type="text"/>
сенокосилки	037	<input type="text"/>	<input type="text"/>

жатки	038	<input type="text"/>	<input type="text"/>
комбайны зерноуборочные	039	<input type="text"/>	<input type="text"/>
комбайны кормоуборочные	0310	<input type="text"/>	<input type="text"/>
комбайны хлопкоуборочные	0311	<input type="text"/>	<input type="text"/>
пресс-подборщики	0312	<input type="text"/>	<input type="text"/>
продуктивный скот, голов	04	<input type="text"/>	<input type="text"/>
рабочий скот, голов	05	<input type="text"/>	<input type="text"/>
производственный инвентарь, единиц	06	<input type="text"/>	<input type="text"/>
другое	07	<input type="text"/>	<input type="text"/>

**D.3. Имеете ли Вы финансовую возможность дополнительного приобретения производственных ресурсов?**

да - 1  
нет - 2

**D.4. Создаете ли Вы запас необходимых ресурсов?**

посевных семян	1
горюче-смазочных материалов	2
минеральных удобрений	3
запасных частей	4

**D.6. Какие проблемы возникают в процессе приобретения необходимых ресурсов и услуг?**

**D.5. Где Вы приобретаете необходимые ресурсы и услуги?**

1-Семена, рассада, саженцы	<input type="text"/>	10-Выполнение механизированных работ	<input type="text"/>
2-Корма	<input type="text"/>	11-Зооветпрепараты	<input type="text"/>
3-Молодняк скота и птицы	<input type="text"/>	12-Ветеринарное обслуживание	<input type="text"/>
4-Минеральные удобрения	<input type="text"/>	13-Стройматериалы	<input type="text"/>
5-Средства защиты растений	<input type="text"/>	14-Строительные услуги	<input type="text"/>
6-Техника и оборудование	<input type="text"/>	15-Консультации	<input type="text"/>
7-Ремонт и обслуживание	<input type="text"/>	16-Электроэнергия	<input type="text"/>
8-Запчасти	<input type="text"/>	17-Органические удобрения	<input type="text"/>
9-Горюче-смазочные материалы	<input type="text"/>	18-Автотранспортные услуги	<input type="text"/>

1-Семена, рассада, саженцы	<input type="text"/>	11-Услуги по выполнению механизированных работ	<input type="text"/>
2-Корма	<input type="text"/>	12-Зооветпрепараты	<input type="text"/>
3-Молодняк скота и птицы	<input type="text"/>	13-Ветеринарное обслуживание	<input type="text"/>
4-Минеральные удобрения	<input type="text"/>	14-Стройматериалы	<input type="text"/>
5-Средства защиты растений	<input type="text"/>	15-Консультации	<input type="text"/>
6-Техника и оборудование	<input type="text"/>	16-Электроэнергия	<input type="text"/>
7-Ремонт и обслуживание	<input type="text"/>	17-Органические удобрения	<input type="text"/>
8-Запчасти	<input type="text"/>	18-Автотранспортные услуги	<input type="text"/>
9-Горюче-смазочные материалы	<input type="text"/>		
10-Строительные услуги	<input type="text"/>		

Коды:			
государственные организации	1	производим сами	4
крестьянские объединения	2	другое	5
частные лица и коммерческие фирмы	3	вообще не приобретаем	6

Коды			
нет трудностей	1	несвоевременное исполнение заказа	4
высокие цены	2	нет средств для приобретения	5
отсутствие в продаже	3	низкое качество	6

**D.7. Удовлетворены ли Вы услугами, предоставляемыми ниже перечисленными организациями?**

Коды:  не удовлетворен – 1;  частично удовлетворен – 2;  удовлетворен – 3.

1-Гос. концерн "Туркменпагта"  
2-Ассоциация "Туркменгалаонумлери"  
3-Ассоциация "Туркменмаллары"  
4-Ассоциация "Туркменобахызмат"  
5-ГКБ "Дайханбанк"


6-другие государственные организации  
7-крестьянские объединения  
8-коммерческие фирмы  
9-частные лица  
10-другие


**D.8. Если Вы НЕ удовлетворены услугами этих организаций, то по какой причине? (укажите 3 наиболее важных причины)**

несвоевременное исполнение	1	очень высокие цены	4
низкое качество услуг	2	большие затраты времени	5
волокита	3	другое	6

**D.9. Обеспечено ли Ваше дайханское (фермерское) хозяйство?**

Коды:  да - 1;  частично - 2;  нет - 3

1-подопроводом	<input type="checkbox"/>	3-электроэнергией	<input type="checkbox"/>
2-газом	<input type="checkbox"/>	4-подъездными дорогами	<input type="checkbox"/>

**D.10. Участвует ли Ваше дайханское (фермерское) хозяйство в совместной деятельности с другими хозяйствами?**

да - 1  
нет - 2 >> вопрос E.1.

Если ДА, то, какие виды деятельности Вы осуществляете совместно?

производство продукции	1	снабжение	6
переработка	2	взаимное кредитование	7
реализация продукции	3	консультации	8
совместное использование техники и оборудования	4	другое	9
мелиорация	5		

## РАЗДЕЛ Е. РАСТЕНИЕВОДСТВО

**Е.1. Используется ли полностью земля, предназначенная для растениеводства?**

да - 1 >> вопрос Е.3.  
нет - 2

**Е.2. Если не используется полностью, то почему?**  
(укажите две наиболее важные причины)

не выгодно	1	отсутствие орошения	5
недостает средств на освоение земель	2	нерегулярность орошения	6
по причине не качества земли	3	другое	7
трудности со снабжением и техникой	4		

**Е.3. Какие сельхозкультуры Вы выращивали в своем хозяйстве?**

Название культуры	Коды	а) Выращивали,	б) При-	в) Производство в 2000 г
		да - 1	было ли это? да - 1, нет - 2	Вы собираетесь увеличить 1 сократить 2 оставить на прежнем уровне 3 затрудняюсь ответить 4
1. Зерновые	01			
а) пшеница	011			
б) ячмень	012			
в) кукуруза на зерно	013			
г) рис	014			
2. Хлопчатник	02			
3. Овощи	03			
4. Бахчевые	04			
5. Картофель	05			
6. Кормовые корнеплоды	06			
7. Кукуруза на силос и зеленый корм	07			
8. Однолетние и многолетние травы	08			
9. Фрукты и ягоды	09			
10. Виноград	10			
11. Теплицы и парники	11			
а) овощи	111			
б) citrusовые	112			
в) цветы	113			

**Е.4. Приблизительно, какой процент зерновых (кроме риса) Вы используете...**

1 - на семена  %    2 - на корм скоту  %

**Е.5. Получали ли Вы воду в необходимые сроки?**    да - 1  
нет - 2

**Е.6. Сколько поливов провели в 1999 году?**

	норма	факт
1- хлопчатника	<input type="text"/>	<input type="text"/>
2- пшеницы	<input type="text"/>	<input type="text"/>
3- овощей	<input type="text"/>	<input type="text"/>
4- люцерны	<input type="text"/>	<input type="text"/>
5- садов	<input type="text"/>	<input type="text"/>
6- виноградников	<input type="text"/>	<input type="text"/>

**Е.7. Какие водные источники Вы используете для орошения?**

местные водные источники (река, скважина, родники)    1  
искусственные оросительные сооружения (каналы, межхозяйственная оросительная сеть)    2  
другое    3

**Е.8. Какие методы орошения наиболее эффективны для Ваших условий**

поверхностный полив по бороздам    1  
дождевание    2  
капельное орошение    3

**Е.9. Кому принадлежит оборудование, используемое для подачи воды на Ваш земельный участок?**

крестьянскому объединению    1  
дайханскому (фермерскому) хозяйству    2  
"организации по водоснабжению"    3  
другое    4

**Е.10. Кто определяет эксплуатацию внутрихозяйственных оросительных сетей?**

крестьянское объединение    1  
дайханское (фермерское) хозяйство    2  
"организация по водоснабжению"    3  
другое    4

**Е.11. Имеете ли Вы реальную возможность повысить среднюю урожайность на орошаемых землях?**

да - 1  
нет - 2    >> вопрос Е.12.

Если ДА, то на сколько?

1- озимая пшеница     ц/га  
2- кукуруза на зерно     ц/га  
3- хлопчатник     ц/га  
4- овощи     ц/га  
5- бахчи продовольственные     ц/га  
6- сено люцерны     ц/га  
7- сады     ц/га  
8- виноградники     ц/га

**Е.12. Какую прибыль (в текущих ценах) Вы получили в растениеводстве,** тыс. манатов

	Коды	1999 г.	2000 г. (оценка)
Пшеница	1		
Хлопок-сырец	2		
Овоще-бахчевые	3		
Картофель	4		
Корм	5		
Сады	6		
Виноград	7		
Прочие	8		
ИТОГО	9		

**Е.13. Что Вы считаете необходимым сделать для повышения прибыльности растениеводства и будет ли у Вас возможность осуществить это в ближайшие два года?**

Коды: да - 1; нет - 2

- 1-повысить продуктивность земли
- 2-изменить специализацию
- 3-расширить посевные площади
- 4-улучшить мелиоративное состояние земель
- 5-использовать новые сорта
- 6-использовать прогрессивные технологии
- 7-увеличить количество применяемых удобрений
- 8-увеличить количество техники в хозяйстве
- 9-создать перерабатывающие предприятия
- 10-открыть фирменный магазин

надо сделать	будет возможность
<input type="checkbox"/>	<input type="checkbox"/>

- 11-осуществить строительство и оснастить оборудованием ремонтные мастерские
- 12-проложить дороги и коммуникации
- 13-кооперироваться с другими фермерами по:
  - а) производственно-техническому обеспечению
  - б) акционированию и целевому использованию финансов
  - в) переработке сельскохозяйственной продукции
  - г) реализации сельскохозяйственной продукции
  - д) другое

надо сделать	будет возможность
<input type="checkbox"/>	<input type="checkbox"/>

**РАЗДЕЛ F. ЖИВОТНОВОДСТВО**

**F.1. Занимаетесь ли Вы животноводством?** да - 1 >> вопрос F.3.  
нет - 2

**F.2. Если Вы не занимаетесь животноводством, то почему?**  
(укажите 3 наиболее важные причины)

- не выгодно 1
- не хватает кормов 2
- не хватает земли 3
- трудности со снабжением и техникой 4
- нет желания 5
- недостаточно средств закупить скот 6
- недостаточно помещений для содержания скота, птицы 7
- трудности в реализации продукции 8
- недостаточен опыт, колеблюсь начать дело 9
- другое 10

**F.3. Какова численность животных и птицы в Вашем дайханском (фермерском) хозяйстве на данный момент?**

	голов
1. крупный рогатый скот	<input type="text"/>
2. в том числе коровы	<input type="text"/>
3. овцы и козы	<input type="text"/>
4. свиньи	<input type="text"/>
5. лошади	<input type="text"/>
6. куры	<input type="text"/>
7. птица других видов	<input type="text"/>
8. кролики	<input type="text"/>
9. пчелосемьи (число ульев)	<input type="text"/>
10. верблюды	<input type="text"/>

**F.4. Какую и сколько продукции животноводства Вы произвели в 1999 г.?**

Годы	Мясо, т	Молоко, т	Яйца, шт.	Шерсть, кг	Каракуль, шт.	Кожсырье, кг
1999*						
2000 (оценка)						
<b>ИТОГО</b>						
в том числе:						
на собственные нужды						
на реализацию						

\*Примечание: При заполнении используются отчетные данные

**F.5. Сколько молока в расчете на 1 корову Вы получили в 1999 г.?**

\_\_\_\_\_ кг

**F.6. Сколько яиц Вы получили в среднем на 1 курицу-несушку в 1999 г.?**

\_\_\_\_\_ штук

**F.7. Какие корма Вы используете, занимаясь животноводством, %?**

	Коды	а) собственные	б) купленные*
пастбища	1		
зеленые корма	2		
сено	3		
зерно	4		
корнеплоды	5		
комбикорма	6		
хлеб	7		
силос	8		
сенаж	9		
шрот	10		
жмых	11		
шелуха	12		
зерноотходы	13		
другое	14		

\* аренда

**F.8. Какую прибыль Вы получили в животноводстве, тыс. манатов?**

	Коды	Годы	
		1999	2000 (оценка)
Крупный рогатый скот	1		
Овцы и козы	2		
Верблюды	3		
Лошади	4		
Птица	5		
Прочие	6		
Итого	7		

**F.9. Что Вы считаете необходимым сделать для прибыльности животноводства и будет ли у Вас возможность осуществить это в ближайшее два года?**

		Коды:			
надо сделать	1	будет возможность	2	не будет возможности	3
1.увеличить производство кормов	<input type="checkbox"/>	7.использовать прогрессивные технологии	<input type="checkbox"/>		
2.изменить специализацию	<input type="checkbox"/>	8.улучшить и обводнить пастбища	<input type="checkbox"/>		
3.увеличить поголовье	<input type="checkbox"/>	9.создать перерабатывающие предприятия	<input type="checkbox"/>		
4.улучшить породный состав	<input type="checkbox"/>	10.открыть фирменный магазин	<input type="checkbox"/>		
5.закупать больше кормов	<input type="checkbox"/>	11.реализовать продукцию самостоятельно	<input type="checkbox"/>		
6.увеличить количество специализированной техники	<input type="checkbox"/>	12.расширить и улучшить животноводческие помещения	<input type="checkbox"/>		
		13.улучшение ветеринарной службы	<input type="checkbox"/>		

## РАЗДЕЛ Г. ПЕСЕЛЬСКОХОЗЯЙСТВЕННАЯ ДЕЯТЕЛЬНОСТЬ

### Г.1. Имеете ли Вы собственные мощности по переработке?

	Есть в наличии да - 1, нет - 2	Мощность, т в год
1. Зерно	<input type="checkbox"/>	<input type="text"/>
2. Семена хлопковые	<input type="checkbox"/>	<input type="text"/>
3. Кунжут	<input type="checkbox"/>	<input type="text"/>
4. Семена подсолнечника	<input type="checkbox"/>	<input type="text"/>
5. Овощи и фрукты	<input type="checkbox"/>	<input type="text"/>
6. Виноград	<input type="checkbox"/>	<input type="text"/>
7. Мясо	<input type="checkbox"/>	<input type="text"/>
8. Молоко	<input type="checkbox"/>	<input type="text"/>

### Г.2. Какую продукцию Вы получаете от перерабатывающих предприятий?

	Количество, т в год
1. Мука	<input type="text"/>
2. Концентрированные корма	<input type="text"/>
3. Растительное масло	<input type="text"/>
4. Плодоовощные консервы	<input type="text"/>
5. Мясные продукты	<input type="text"/>
6. Молочные продукты	<input type="text"/>

### Г.3. Имеете ли Вы подсобные промыслы для несельскохозяйственной деятельности?

	Есть в наличии да - 1, нет - 2	Объем реализации в 1999 г., тыс. манатов	Прибыль в 1999 г., тыс. манатов
1. Производство стройматериалов	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
2. Швейное производство	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
3. Ковровое производство	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
5. Выпечка хлеба и хлебобулочных изделий	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
6. Макароны изделия	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
7. Кондитерские изделия	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
8. Колбасные изделия	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
9. Виноводочная	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
10. Консервы	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>
11. Другое	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>

## РАЗДЕЛ II. РЕАЛИЗАЦИЯ ПРОДУКЦИИ

## II.1. Реализация продукции в 1999 г.?

	Производителе да-1,	Доля продукции, %		Главный канал реализации (*код)	Имеется ли возможность выбора покупателя да - 1, нет - 2	Цена последней продажи, тыс. манатов за тонну	Месяц последней продажи	
		потребляемой внутри хозяйства	продаваемой на					
			деньги					бартер
1. Зерно								
в том числе:								
а) пшеница								
б) ячмень								
в) кукуруза на зерно								
г) рис								
2. Хлопок-сырец								
3. Овощи								
4. Бахчевые								
5. Картофель								
6. Сено многолетних трав								
7. Прочие корма								
8. Фрукты и ягоды								
9. Виноград								
10. Мясо								
11. Молоко								
12. Яйца, тыс. шт								
13. Мед								
14. Шерсть								
15. Каракуль								
16. Кожсырье								

* Коды каналов реализации			
государственные заготовительные организации	1	рынок и население	5
перерабатывающие предприятия	2	коллективные и другие с/х предприятия	6
потребительская кооперация	3	свободная продажа	7
коммерческие предприятия и заготовители	4	другие	8

**Н.2. Есть ли трудности в реализации продукции по перечисленным причинам, укажите там, где есть?**

(укажите два наиболее важных фактора)

Коды:			
Несвоевременные выплаты	1	Трудности с транспортом	4
Цены на продукцию слишком низкие	2	Другое	5
Трудно найти покупателя	3	Нет трудностей	6

01. Зерно	<input type="checkbox"/>	<input type="checkbox"/>	07. Прочие корма	<input type="checkbox"/>	<input type="checkbox"/>
в том числе:					
01.1. пшеница	<input type="checkbox"/>	<input type="checkbox"/>	08. Фрукты и ягоды	<input type="checkbox"/>	<input type="checkbox"/>
01.2. ячмень	<input type="checkbox"/>	<input type="checkbox"/>	09. Виноград	<input type="checkbox"/>	<input type="checkbox"/>
01.3. кукуруза на зерно	<input type="checkbox"/>	<input type="checkbox"/>	10. Мясо	<input type="checkbox"/>	<input type="checkbox"/>
01.4. рис	<input type="checkbox"/>	<input type="checkbox"/>	11. Молоко	<input type="checkbox"/>	<input type="checkbox"/>
02. Хлопок-сырец	<input type="checkbox"/>	<input type="checkbox"/>	12. Яйца	<input type="checkbox"/>	<input type="checkbox"/>
03. Овощи	<input type="checkbox"/>	<input type="checkbox"/>	13. Мед	<input type="checkbox"/>	<input type="checkbox"/>
04. Бахчевые	<input type="checkbox"/>	<input type="checkbox"/>	14. Шерсть	<input type="checkbox"/>	<input type="checkbox"/>
05. Картофель	<input type="checkbox"/>	<input type="checkbox"/>	15. Каракуль	<input type="checkbox"/>	<input type="checkbox"/>
06. Сено многолетних трав	<input type="checkbox"/>	<input type="checkbox"/>	16. Кожсырье	<input type="checkbox"/>	<input type="checkbox"/>

**Н.3. Как Вы в целом оцениваете возможности реализации продукции?**

Хорошо	1
Средне	2
Плохо, так как цены слишком низкие	3
Плохо, так как иногда не могу найти покупателя даже если я снижаю цены	4
Очень плохо	5

**Н.4. Реализуете ли Вы свою продукцию за пределы Туркменистана?**

да – 1

нет – 2 >> вопрос Н.5.

**Н.4а. Какую продукцию Вы продаете за пределы Туркменистана в страны СНГ и другие?**

	Кому? в СНГ – 1, в другие страны – 2	Примерное количество
1. Хлопок-волокно, тонн		
2. Овощи, тонн		
3. Бахчевые, тонн		
4. Фрукты, тонн		
5. Виноград, тонн		
6. Плодоовощные консервы, тыс. усл. банок		
7. Вино виноградное, далл		
8. Мед, кг		
9. Шерсть, кг		
10. Каракуль, шт.		
11. Кожсырье, шт.		
12. Другое		

**Н.5. Имеются ли у Вас затруднения в получении лицензий (регистрации сделок) на реализацию продукции в другие страны?**

существенные затруднения	1
небольшие затруднения	2
никаких затруднений	3
я вообще об этом не думал	4
хочу получить лицензию, но не знаю как это сделать	5



**1.6. Если Вы брали кредиты, ссуды, займы, то каков их размер, срок и годовая процентная ставка?**

1.  тыс. манатов      2.  лет      3.  %

**1.7. Из каких, ниже перечисленных, источников Вы получали кредиты, ссуды, займы в 1999 г.?**

государство	1	другие частные лица	4
коммерческие банки	2	другие источники	5
родственники	3		

**1.8. На какой средний срок Вы брали кредиты, ссуды, займы?**

до шести месяцев	1
свыше шести месяцев до одного года	2
больше, чем на год	3

**1.9. Какие средства представлены Вами в качестве залога при получении кредита?**

технику и оборудование	1
драгоценные металлы и камни	2
дом	3
скот	4
продукция	5
гарантия крестьянского объединения, ассоциаций	6
другое	7

**1.10. Как Вы в целом оцениваете финансовое состояние Вашего хозяйства?**

отличное	1	удовлетворительное	4
хорошее	2	не очень плохое	5
не очень хорошее	3	плохое	6
		очень плохое	7

**1.10. Какие у Вас предложения для улучшения финансового состояния дайханских (фермерских) хозяйств?**

открыть льготное кредитование	1
повысить закупочные цены	2
снизить цены на минеральные удобрения	3
все вышперечисленные	4

**ANNEX 4. Survey instruments for leaseholders' survey (2001-2002)**  
**[in Russian]**

**Annex 4**  
**Turkmenistan Leaseholders Survey 2001**

**АНКЕТИРОВАНИЕ**  
**АРЕНДАТОРОВ В КРЕСТЬЯНСКОМ ОБЪЕДИНЕНИИ**

		Коды
Велаят	_____	
Этрап	_____	
Населенный пункт (название)	_____	
Название крестьянского объединения	_____	

Дата посещения: \_\_\_\_\_

\_\_\_\_\_ день                      \_\_\_\_\_ месяц

Интервьюер: \_\_\_\_\_

Респондент - арендатор /руководитель арендного хозяйства

\_\_\_\_\_

Вид внутрихозяйственной аренды

самостоятельная аренда .....1  
семейная аренда .....2  
коллективная аренда .....3

1. Каждому крестьянскому объединению присваивается код.
2. Коды велаятов и этрапов, при обследовании арендаторов такие же, какие при обследовании дайханских (фермерских) хозяйств.
3. На каждое обследуемое крестьянское объединения дается копия бухгалтерского отчета.

Конфиденциальность  
гарантируется получателем  
информации

## Секция А.: СЕМЬЯ

**А.1.** Сколько человек всего в Вашей семье?

**А.2.** Какой состав Вашей семьи?

Член семьи по отношению к арендатору	Пол		Возраст, лет	Образование (*код)	Занятость		Род занятий вне арендного хозяйства (*код)
	м	ж			на аренде (*код)	вне аренды (*код)	
1. Арендатор							
2. Жена (муж)							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							

*Коды образования	
высшее	1
незаконченное высшее	2
среднее специальное (техникум)	3
профессионально-техническое (ПТУ, СПТУ)	4
общее среднее	5
неполное среднее (не кончил школу)	6
учащийся	7
нет образования	8

*Коды занятости	
полностью занятый.....	1
частично занятый.....	2
совсем не занятый.....	3

*Род занятий вне аренды		Коды:
Руководитель, заместитель руководителя предприятия		1
Специалист среднего звена		2
Квалифицированный рабочий		3
Неквалифицированный рабочий		4
Служащий		5
Выборные органы местного управления		6
Домохозяйка		7
Пенсионер		8
Ищущий работу		9
Другое		10

**А.3.** Какую должность Вы занимали до того как стали арендатором?

В крестьянском объединении:

	муж	жена
работник аппарата управления	1	1
специалист среднего звена	2	2
работник производства	3	3
работник социальной сферы	4	4

Вне крестьянского объединения:

работник органов местного управления	5	5
работник других сфер	6	6
учащийся	7	7
пенсионер	8	8
ищущий работу	9	9
другое	10	10



**V.13.** Предписывает ли Ваш договор обязательное количество продукции?

(Отметить где "да")

хлопка-сырья	1	других культур	6
пшеницы	2	мяса	7
овошей и бахчевых	3	молока	8
винограда	4	другой продукции животноводства	9
фруктов	5		

**V.14.** Какую продукцию Вы производите по договору (аренды)?

хлопок	1	фрукты	5
пшеницу	2	другие культуры	6
картофель, овощи, бахчи	3	продукцию животноводства	7
виноград	4		

**V.15.** На какой процент Вы выполнили свои производственные обязательства по договору аренды?

1999 г.		<b>Коды:</b>	
2000 г.		меньше 50%	1
ожидаемое в 2001 г.		50% - 75%	2
		75% - 100%	3
		100% - 125%	4
		125% - 150%	5
		Больше 150%	6

**V.16.** Какую продукцию Вы предпочли бы производить?

хлопок	1	фрукты	5
пшеницу	2	другие культуры	6
картофель, овощи, бахчи	3	продукцию животноводства	7
виноград	4		

**V.16.1** Какие обязательства принимает на себя арендодатель:

Предоставление в пользование земли	1
Своевременное предоставление в необходимых количествах ресурсов	2
воды	a
минеральных удобрений	b
семян	c
других ресурсов	d
Предоставление кредита	3
Ветеринарное обслуживание	4
Проведение механизированных работ	5
Агрохимическое обслуживание против сельхозвредителей	6
Вывоз продукции на заготовительные пункты	7
Расчет за проданную продукцию по предъявлению арендаторов документов о продаже продукции	8

**V.17.** Знаете ли Вы сколько стоит для Вас агросервисное обеспечение, выполняемое агросервисными службами?

	ДА	сколько, тыс.ман.	НЕТ
удобрения	1	<input type="text"/>	<input type="text"/>
средства защиты растений и др. химикаты	2	<input type="text"/>	<input type="text"/>
семена	3	<input type="text"/>	<input type="text"/>
механизированные услуги	4	<input type="text"/>	<input type="text"/>
ветеринарные услуги	5	<input type="text"/>	<input type="text"/>
другое	6	<input type="text"/>	<input type="text"/>

**V.18.** Получили ли Вы материально-техническое снабжение предписанное договором за 2000 г.?

да, получил полностью	1	нет, не получил	3
получил частично	2	точно не знаю	4

**V.19.** Какой размер ежегодной арендной платы по договору аренды на 2000 г.?

Всего	% от валовой продукции	тыс.манат
в т.ч.		

**V.20.** Сколько Вы фактически уплатили в 2000 г. в виде арендной платы?

Всего	% от валовой продукции	тыс.манат
в т.ч.		
крестьянскому объединению		

**V.21.** Пользовались ли Вы в 2000 г. государственными льготами или государственной поддержкой при выполнении работ по договору аренды?

на приобретения удобрений и ядохимикатов	1	на транспортные расходы для	
семян	2	перевозки продукции и ресурсов	4
на проведение механизированных работ	3	на кредиты ГКБТ "Дайханбанка"	5

**V.22.** Изменилась ли экономическая ситуация в Вашей семье после введения арендных отношений?

ситуация в целом ухудшилась	1	все осталось без изменений	3
ситуация в целом улучшилась	2		

**V.23.** Изменился ли Ваш интерес к работе после того, как Вы стали работать на внутрихозяйственной аренде?

снизился	1	повысился	2	не изменился	3
----------	---	-----------	---	--------------	---

**V.24.** В чем проявляется Ваша самостоятельность, как арендатора? (отметьте где "ДА")

выращиваю что хочу	1	в возможности получения банковских кредитов	6
управляю своим собственным трудом	2	в самостоятельном сотрудничестве с сервисными службами	7
в закупке для себя средств производства	3	в самостоятельном распоряжении результатами своего труда	8
в сбыте произведенной продукции	4	самостоятельность не проявляется	9
в наличии своего банковского счета	5		

**V.25.** Имеет ли аренда преимущество по сравнению с коллективной формой хозяйствования?

да	1	нет	2	затрудняюсь ответить	3
----	---	-----	---	----------------------	---

**V.25.1.** Если НЕТ, то почему? (укажите одну наиболее важную по вашему мнению причину)

не вижу большой разницы	1	трудности с реализацией продукции	4
снижается доход на одного работника	2	малая социальная защищенность	5
трудности со снабжением и техникой	3	другое	6



в 2001 году	1	позже	4
в 2002 году	2	затрудняюсь ответить	5
в 2003 году	3		

**С.11.** Кто будет решать вопрос передачи арендных участков на права собственности?

Президент Туркменистана	1
Государственная комиссия по проведению земельной реформы	2
Хяким этрапа	3
Служба по земельным ресурсам Минсельхоза	4
Руководитель крестьянского объединения	5
Внутренняя комиссия крестьянского объединения	6
Внешняя комиссия органов местной власти	7
Общее собрание членов крестьянского объединения	8
Другое	9
Затрудняюсь ответить	10

**С.12.** Предполагаете ли Вы в будущем организовать свое дайханское (фермерское) хозяйство на основе передачи арендных земель в собственность?

да	1	нет	2	затрудняюсь ответить	3
----	---	-----	---	----------------------	---

## Секция D.: РЕСУРСЫ И УСЛУГИ

**D.1.** Сколько месяцев в году заняты в Вашем арендном хозяйстве?

	Месяцы:												Итого
	1	2	3	4	5	6	7	8	9	10	11	12	
1. Вы сами													
Члены Вашей семьи:													
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													
<b>Итого</b>													
Наемные работники:													
1.													
2.													
3.													
4.													
5.													
<b>Итого</b>													
<b>ВСЕГО</b>													

**D.2.** Какие производственные ресурсы Вы арендуете?

животноводческие помещения	1		4
другие производственные постройки	2	производственный инвентарь	5
сельскохозяйственную технику	3	другое	6

**D.3.** Какие производственные ресурсы Вы имеете в личной собственности?

животноводческие помещения	1		4
другие производственные постройки	2	производственный инвентарь	5
сельскохозяйственную технику	3	другое	6

**D.4.** Кто предоставляет необходимые ресурсы и оказывает услуги для арендного хозяйства?

**(укажите главного поставщика)**

Семена, рассада, саженцы  
Корма  
Молодняк скота и птицы  
Органические удобрения  
Минеральные удобрения  
Средства защиты растений  
Техника и оборудование  
Ремонт и обслуживание  
Запчасти  
Горюче-смазочные материалы


Услуги по выполнению  
механизированных работ  
Зооветпрепараты  
Ветеринарное обслуживание  
Стройматериалы  
Строительные услуги  
Электроэнергия  
Автотранспортные услуги  
Учет и финансовые расчеты  
Консультации у специалистов


Коды:

государственные организации	1	производим сами	4
крестьянское объединение	2	другие источники	5
частные лица и коммерческие фирмы	3	вообще не приобретаем	6

**D.5.** Как Вы оцениваете предоставляемые ресурсы и услуги? (дайте одну главную причину)

- Семена, рассада, саженцы
- Корма
- Молодняк скота и птицы
- Органические удобрения
- Минеральные удобрения
- Средства защиты растений
- Техника и оборудование
- Ремонт и обслуживание
- Запчасти
- Горюче-смазочные материалы


- Услуги по выполнению механизированных работ
- Зооветпрепараты
- Ветеринарное обслуживание
- Стройматериалы
- Строительные услуги
- Электроэнергия
- Автотранспортные услуги
- Учет и финансовые расчеты
- Консультации у специалистов


Коды:

нет выбора, беру, что дают  
высокие цены

1  
2

отсутствие в свободной продаже  
у меня нет возможности изменить исполнителя услуг

3  
4

**D.6.** Довольны ли Вы в целом услугами и ресурсами, предоставляемыми крестьянским объединением и службами других организаций?

1 - ДА; 2 - НЕТ; 3 - НЕ ПОЛЬЗУЮСЬ

- 1. Гос. концерн "Туркменпагта"
- 2. Ассоциация "Туркменгалаонумлери"
- 3. Ассоциация "Туркменмаллары"
- 4. Ассоциация "Туркменобахызмат"
- 5. ГКБТ "Дайханбанк"

<input type="checkbox"/>	<input type="checkbox"/>

- 6. другие гос. организации
- 7. крестьянские объединения
- 8. коммерческие фирмы
- 9. частные лица
- 10. другие

<input type="checkbox"/>	<input type="checkbox"/>

**Если НЕТ, то по какой причине:**  
(дайте одну главную причину)

- несвоевременное исполнение 1
- низкое качество услуг 2
- волокита 3
- очень высокие цены 4
- большие затраты времени 5
- другое 6

## Секция Е.: ПРОИЗВОДСТВО В АРЕНДНОМ ХОЗЯЙСТВЕ

**Е.1.** Чем Вы занимаетесь в своем арендном хозяйстве?

- |                         |   |
|-------------------------|---|
| только растениеводством | 1 |
| только животноводством  | 2 |
| и тем и другим          | 3 |

Если Вы не занимаетесь животноводством в арендном хозяйстве (исключая ЛПХ), то почему?

- |                                       |   |                                    |   |
|---------------------------------------|---|------------------------------------|---|
| земля выделена по целевому назначению | 1 | трудности со снабжением и техникой | 5 |
| не выгодно                            | 2 | нет желания                        | 6 |
| недостаток кормов                     | 3 | нет времени                        | 7 |
| недостаток земли                      | 4 | другое                             | 8 |

**Е.2.** Какие культуры Вы выращивали на арендном участке в 2000 г.?

Название культур	Площадь, (га)	Всего собрано, (ц)	Прибыльно ли это?  1 - да 2 - нет	Производство в 2001г. Вы собираетесь... 1-увеличить 2-сократить 3-оставить на прежн. уровне 4-затрудняюсь ответить
1. Зерновые				
а) пшеница				
б) ячмень				
в) кукуруза на зерно				
г) рис				
2. Хлопчатник				
3. Овощи				
4. Бахчевые				
5. Картофель				
6. Кормовые корнеплоды				
7. Кукуруза на силос и зеленый корм				
8. Однолетние и многолетние травы				
9. Фрукты и ягоды				
10. Виноград				
11. Теплицы и парники				
а) овощи				
б) citrusовые				
в) цветы				

**Е.3.** Получали ли Вы воду в необходимые сроки в 2000 г.? да 1                      нет 2

**Е.4.** Получали ли Вы воду в необходимом количестве в 2000 г.? да 1                      нет 2

**Е.5.** Сколько поливов проводили ?

- |                   |  |
|-------------------|--|
| на хлопчатнике    |  |
| на пшенице        |  |
| на овоще-бахчевых |  |
| на кормовых       |  |

**Е.6.** Какое количество воды Вы использовали в 2000 г.?                    м<sup>3</sup>

**Е.7.** Какие водные источники Вы используете на орошение?

- |                                       |   |
|---------------------------------------|---|
| внутрихозяйственная оросительная сеть | 1 |
| скважины, кяризи, родники             | 2 |
| другое                                | 3 |

**Е.8.** Кому принадлежит оборудование, используемое для орошения?

- |                               |   |
|-------------------------------|---|
| моя собственность             | 1 |
| крестьянскому объединению     | 2 |
| водохозяйственной организации | 3 |
| другое                        | 4 |

**E.9.** Кто организует эксплуатацию внутрихозяйственных оросительных сетей?

- сами арендаторы 1  
 крестьянское объединение 2  
 водохозяйственная организация 3  
 другое 4

**E.10.** Платили ли Вы за пользование водой в 2000 г.?

- да 1 нет 2

**E.10.1** Если ДА, то сколько?

тыс.манат

**E.11.** Какова численность животных в Вашем арендном хозяйстве?

Виды животных, птица	На начало аренды, голов	На момент опроса, голов
крупный рогатый скот		
в т. ч. коровы		
свиньи		
овцы и козы		
лошади		
птица		
верблюды		

**E.12.** Какая структура кормов используется Вами для животных в арендном хозяйстве, %?

(укажите 1 главный источник)

1. пастбища
2. зеленые и сочные корма
3. сено
4. зерно
5. комбикорма

**E.13.** Из каких источников Вы получаете корма?

1. пастбища
2. зеленые и сочные корма
3. сено
4. зерно
5. комбикорма

- Коды:
- производите сами 1
- выделяет крестьянское объединение по договорным ценам 2
- приобретаем из других источников 3

**E.14.** Какое количество земли выделено Вам в аренду для производства кормов под арендованный скот?

га

**E.15.** На какой срок?

лет

**E.16.** Достаточно ли Вам земли для производства кормов и содержания скота и птицы?

- да 1 нет 2

**E.16.1** Если НЕТ, на сколько хотели бы увеличить?

га

**E.17.** Какую и сколько продукции животноводства Вы производили в арендном хозяйстве в 2000 г.?

	Производство, кг. (мясо - живой вес)	Прибыльно ли это? да - 1 нет - 2	Производство чего Вы собираетесь в 2001 г. 1-увеличить 2-сократить 3-оставить на прежн. уровне 4-затрудняюсь ответить
Мясо			
Молоко			
Яйца (тыс.шт.)			
Шерсть			
Каракуль, шт.			
Кожсырье, шт.			

**Е.18.** Каков средний годовой надой молока на одну корову в арендном хозяйстве в 2000 г.?  
 по договору аренды  кг фактически  кг

**Е.19.** Какая яйценосность одной курицы-несушки в арендном хозяйстве в 2000 г.?  
 по договору аренды  шт фактически  шт

**Е.20.** Кому принадлежит арендный скот? крестьянскому объединению 1  
Ассоциация "Туркменмалтары" 2  
другое 3

**Е.21.** Как Вы рассчитываетесь за аренду скота с арендодателем?

	ДА	Доля/Сумма (от созданного продукта)
Передаю часть молодняка...	<input type="checkbox"/>	%
Выделяю часть животноводческой продукции в натуральном виде	<input type="checkbox"/>	%
Выделяю часть животноводческой продукции по ценам ниже рыночных в денежном расчете	<input type="checkbox"/>	%
Выплачиваю твердую арендную плату деньгами по количеству голов	<input type="checkbox"/>	_____ тыс. манат за голову
Другое	<input type="checkbox"/>	

**Е.22.** Предусматривается ли в Вашем арендном договоре увеличение поголовья стада?

да 1                      нет 2

**Е.22.1.** Если "ДА", то на сколько в году?  %  голов

**Секция F.: РЕАЛИЗАЦИЯ ПРОДУКЦИИ АРЕНДНОГО ХОЗЯЙСТВА**

**F.1.** Как, главным образом, организована реализация продукции арендного хозяйства?

- занимаюсь сам реализацией большинства продукции 1
- передаю продукцию крестьянскому объединению 2
- сдаю продукцию госзаготовительным организациям после уборки урожая в соответствии с договором 3
- государственные заготовительные организации сами убирают и увозят урожай 4
- другое 5

**F.2.** Реализация продукции произведенной по договору аренды в 2000 г.

	Количество продукции			Главный канал реализации (*код)	Имеете ли возможность выбора покупателя да - 1, нет - 2
	Всего произведено (см. П. E2 и E17)	Потреблено внутри хозяйства, семьи (кг.)	Продано, (кг.)		
1. Зерно					<input type="checkbox"/>
а) пшеница					<input type="checkbox"/>
б) ячмень					<input type="checkbox"/>
в) кукуруза на зерно					<input type="checkbox"/>
г) рис					<input type="checkbox"/>
2. Хлопок-сырец					<input type="checkbox"/>
3. Овощи					<input type="checkbox"/>
4. Бахчевые					<input type="checkbox"/>
5. Картофель					<input type="checkbox"/>
6. Кормовые корнеплоды					<input type="checkbox"/>
7. Кукуруза на силос и зеленый корм					<input type="checkbox"/>
8. Сено однолетних и многолетних трав					<input type="checkbox"/>
9. Прочие корма					<input type="checkbox"/>
10. Фрукты и ягоды					<input type="checkbox"/>
11. Виноград					<input type="checkbox"/>
12. Цитрусовые					<input type="checkbox"/>
13. Цветы					<input type="checkbox"/>
14. Мясо					<input type="checkbox"/>
15. Молоко					<input type="checkbox"/>
16. Яйца, тыс.шт					<input type="checkbox"/>
17. Шерсть					<input type="checkbox"/>
18. Каракуль					<input type="checkbox"/>
19. Кожсырье					<input type="checkbox"/>

\*Коды каналов реализации

- государственные заготовительные организации 1
- перерабатывающие предприятия 2
- потребкооперация 3
- коммерческие предприятия и заготовители 4
- крестьянское объединение 5
- свободная продажа 6
- другие 7

**Ф.3.** Есть ли трудности в реализации продукции арендного хозяйства по перечисленным причинам да - 1 нет - 2

	Несвоевременные выплаты за проданную продукцию	Цены на продукцию слишком низкие	Трудно найти покупателя	Трудно доставить продукцию к месту реализации	Другое
1. Зерно	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
а) пшеница	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
б) ячмень	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
в) кукуруза на зерно	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
г) рис	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Хлопок-сырец	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Овощи	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Бахчевые	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Картофель	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Сено многолетних трав	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Прочие корма	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Фрукты и ягоды	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Виноград	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Кормовые корнеплоды	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Кукуруза на силос и зеленый корм	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Сено однолетних и многолетних трав	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Прочие корма	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Фрукты и ягоды	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Виноград	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Цитрусовые	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Цветы	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Мясо	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Молоко	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Яйца, тыс.шт	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Шерсть	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Каракуль	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Кожсырье	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Секция G.: ДОХОДЫ, ФИНАНСЫ, УРОВЕНЬ ЖИЗНИ**

**G.1. Примерные денежные доходы и расходы Вашего арендного хозяйства в 2000 г.**

Статьи доходов и расходов	тыс. манат
Поступило денег от реализации продукции, всего	
Израсходовано на производственные нужды, всего	
в том числе: оплата труда	
аренду земли	
аренду продуктивного скота	
аренду других средств производства	
механизаторные работы	
автотранспорт	
минеральные удобрения	
химикаты для защиты растений	
корма	
семена	
ветеринарные услуги и препараты	
вода	
прочие затраты	
Налоги и отчисления	
Чистый денежный доход	

**G.2. Какой род занятий является дополнительным источником дохода Вашей семьи?**

ковроткачество	1
вышивание	2
пошив одежды	3
первичная переработка овощей, фруктов, винограда	4
гончарное дело	5
ремонтно-строительные работы	6
изготовление столярных изделий и мебели	7
личное подсобное хозяйство	8
коммерческая деятельность	9
прочий род занятий	10

**G.3. Примерный чистый денежный доход Вашей семьи в 2000 г.**

Статьи доходов и расходов	тыс. манат
Всего	
в том числе:	
чистый доход от арендного хозяйства	
зарплата, полученная в др. подразделениях и предприятиях	
чистый доход от ЛПХ	
пенсии	
социальная поддержка	
чистый доход от дополнительных занятий	
прочие доходы	

**G.4. Ведете ли Вы бухгалтерский учет по арендному хозяйству?**

да 1  
нет 2

**G.5. Кто представляет следующие социальные льготы и услуги?**

Наименование льгот и услуг	Льготы и услуги: получаю - 1 нет - 2	если получаете, то кто
		предоставляет
пенсия		1 - государство и местные власти
пособие на детей		2 - профсоюзная организация
льготы при посещении детьми дошкольных учреждений		3 - крестьянское объединение
льготы при посещении детьми школы (доставка в школу, бесплатные завтраки)		4 - другие
стипендии студентам		
помощь в строительстве и ремонте жилья, хозпостроек		
снабжение топливом		
продовольствие по льготным ценам		
льготные коммунальные услуги		
оказание медицинской помощи (профилактические осмотры, лекарства на льготных условиях и т. д.)		
льготные путевки в санатории, базы отдыха		
пользование ведомственным жильем		
транспортные услуги		

**G.6. Имеет ли Ваше хозяйство или Ваша семья долги?**

заготовительным организациям	1
сервисным организациям и поставщикам снабжения и услуг	2
ГКБТ "Дайханбанку"	3
другим банкам	4
крестьянскому объединению	5
частным лицам (родственникам, знакомым, соседям)	6
другое	7

**G.7. Имеет ли Ваша семья денежные сбережения?**

да 1 нет 2

**G.8. Предоставлялся ли Вам кредит для ведения арендного хозяйства в 2000**

да 1 нет 2

**G.8.1. Если ДА, то укажите...**

сумму, млн. манат	
срок (месяцы)	
средний годовой процент	%

**G.9. Достаточен ли для Вас предоставленный кредит?**

да 1 нет 2

**G.9.1. Если НЕТ, то сколько Вам нужно, на какой срок и под какой процент?**

сумма	
срок	
приемлемый ссудный процент	

**G.10. Храните ли Вы свободные деньги на депозитных счетах коммерческих банков?**

да 1 нет 2

**G.10.1. Если "ДА", то под какой процент ?**

%

**G.11. Кто и сколько денег должен Вашей семье на данный момент?**

1 - ГКБТ "Дайханбанк", млн. манат	
2 - государственные заготовители с/х продукции, млн. манат	
3 - коммерческие торгово-закупочные организации, млн. манат	
4 - перерабатывающие предприятия, млн. манат	
5 - частные лица, млн. манат	
6 - крестьянское объединение, млн. манат	
7 - другие, млн. манат	



**G.22.** Если Вам предоставят землю в собственность, то собираетесь ли Вы в течении последующих двух лет в Вашем хозяйстве?

приобретать сельскохозяйственную технику	1
приобретать рабочий и продуктивный скот	2
возводить хозяйственные постройки	3
закладывать многолетние насаждения	4
приобретать оборудование для переработки	5
расширять оросительную сеть и проводить другие мелиоративные работы	6
делать другие хозяйственные инвестиции	7

**G.23.** Что могло бы существенно повлиять на улучшение Вашей жизни?

(отметить одну самую главную причину)

возможность продавать контрактную продукцию по рыночным ценам	1
возможность самостоятельно решать, что производить в арендном хозяйстве	2
создание частного фермерского хозяйства на базе Вашего арендного хозяйства	3
повышение оплаты труда членов семьи, работающих в других предприятиях	4
расширение ЛПХ	5
улучшение жилищно-коммунальных услуг	6
улучшение культурно-бытового обслуживания	7
улучшение медицинского обслуживания	8
улучшение торговли и общественного питания	9
улучшение транспортного обслуживания и связи	10

**G.24.** Как Вы охарактеризовали свое отношение к завтрашнему дню?

положительно	1
отрицательно	2
затрудняюсь ответить	3

**Секция Н.: ПРОИЗВОДСТВО И РЕАЛИЗАЦИЯ ПРОДУКЦИИ ЛПХ**

**Н.1.** Какая площадь земельного участка ЛПХ занята под посевами и насаждениями?

<b>Всего:</b>	<input type="text"/>	га
<b>в том числе:</b>		
зерновые	<input type="text"/>	га
картофель, овощи, бахчи	<input type="text"/>	га
сады	<input type="text"/>	га
виноградники	<input type="text"/>	га
прочие посеы и насаждения	<input type="text"/>	га

**Н.2.** Сколько голов скота Вы содержали в ЛПХ на конец 2000 г.?

крупный рогатый скот	<input type="text"/>	голов	птица	<input type="text"/>	голов
в том числе коровы	<input type="text"/>	голов	лошади	<input type="text"/>	голов
свиньи	<input type="text"/>	голов	ослы	<input type="text"/>	голов
овцы и козы	<input type="text"/>	голов	верблюды	<input type="text"/>	голов

**Н.3.** Какой был средний годовой надой молока в ЛПХ в 2000 г.?  кг

**Н.4.** Какая яйценоскость одной курицы-несушки в ЛПХ в 2000 г.?  шт. в год

**Н.5.** Какая структура кормов используемых для скота в ЛПХ, %?

- |                     |                          |               |                          |
|---------------------|--------------------------|---------------|--------------------------|
| 1. пастбища         | <input type="checkbox"/> | 4. зерно      | <input type="checkbox"/> |
| 2. зеленые и сочные | <input type="checkbox"/> | 5. комбикорма | <input type="checkbox"/> |
| 3. сено             | <input type="checkbox"/> |               |                          |

**Н.6.** Производство и реализация продукции ЛПХ в 2000 г.?

	Объем производства, кг	Количество продукции		Один главный канал реализации (*код)
		на наличное потребление, кг	реализуемая, кг	
1. Зерно				
а) пшеница				
б) ячмень				
в) кукуруза на зерно				
г) рис				
2. Хлопок-сырец				
3. Овощи				
4. Бахчевые				
5. Картофель				
6. Кормовые корнеплоды				
7. Кукуруза на силос и зеленый корм				
8. Сено однолетних и многолетних трав				
9. Прочие корма				
10. Фрукты и ягоды				
11. Виноград				
12. Цитрусовые				
13. Цветы				
14. Мясо				
15. Молоко				
16. Яйца, тыс.шт				
17. Шерсть				
18. Каракуль				
19. Кожсырье				

**\*Коды каналов реализации:**

государственные заготовительные организации	1	крестьянские объединения	5
перерабатывающие предприятия	2	свободная продажа	6
потребкооперация	3	другие	7
коммерческие предприятия и заготовители	4		

**Н.7.** Приблизительно какой процент зерновых Вы используете?

на семена	<input type="text"/>	%
на корм скоту	<input type="text"/>	%

**Н.8.** Оказывает ли Вам содействие крестьянское объединение в ведении ЛПХ?

да	1
нет	2

**Н.8.1.** Если ДА, то в чем?

механизированные услуги	1
материально-техническое снабжение	2
реализация продукции ЛПХ	3
обеспечение семенами	4
обеспечение минеральными удобрениями	5
другое	6

**Н.9.** Хотели ли бы Вы увеличить площадь земель используемых в ЛПХ?

да	1
нет	2

**Н.9.1.** Если ДА, то на сколько?  га

## **ANNEX 5. Other Output [in English, Russian, and Turkmen]**

R. Gluhik, M. Schwartz, and Z. Lerman, "Land Reform in Turkmenistan: Does It Work?" *International Business and Economics Research Journal*, 2(2): 93-104 (February 2003).

I. Stanchin and Z. Lerman, "Premises and Components of Land Reform in Turkmenistan," paper presented at the Regional Conference on "Land Management and Land Cadastre during Land Reform", Tashkent Institute of Irrigation and Farm Mechanization Engineers – TIIMSKh, Tashkent, Uzbekistan, May 16-17, 2003.

I. Stanchin and Z. Lerman, "Stages of Land Reform in Turkmenistan." Conference on "Socio-Economic Development of Turkmenistan during Independence", Magtymkuly Turkmen State University, Ashgabat, Turkmenistan, October 10, 2003.

Z. Lerman and I Stanchin, "Farm Restructuring in Turkmenistan: Outcomes and Constraints," Organized symposium on land and water reforms in Central Asia, American Agricultural Economics Association (AAEA) meetings, Montreal, July 28-30, 2003.

Z. Lerman and I. Stanchin, "New Contract Arrangements in Turkmen Agriculture: Impacts on Productivity and Rural Incomes," Panel on Changing Land and Water Use Patterns in Central Asia, Annual conference of the Central Eurasian Studies Society (CESS), Harvard University, Cambridge, Mass., October 2-5, 2003.

I. Stanchin, "Principles of the Theory of Market Economy," *Allyn Asyryn Ykdysadyeti - Economy of the Golden Age*, No. 3, pp. 34-40 (March 2003).

# Land Reform In Turkmenistan: Does It Work?

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## Abstract

*Turkmenistan is one of the 25 former socialist countries in Europe and Central Asia that embarked on a transition from plan to market in the early 1990s. In agriculture, the transition was expected to improve the productivity of the chronically inefficient collective farming inherited from the Soviet era. Improvements were to be achieved through the transfer of land and assets from collective farms to individual operators, in line with the established practice of agriculture in market economies. This study examines the progress of agricultural reform in Turkmenistan by focusing on land distribution, farm structure transformation, and changes in production patterns, marketing, and farm performance. The study is based on a survey of 143 private farmers conducted in Turkmenistan in 2000. Preliminary results indicate that, despite fairly generous allocation of land to individual farming, no significant performance improvements have been achieved so far, primarily because private farmers operate under severe environmental, institutional and political constraints.*

## 1. Overview of Land Reform in Turkmenistan

Turkmenistan is a highly agrarian country, over half of the population is rural, and 44% of the labor force is employed in agriculture. Agriculture is the second most important sector in the Turkmen economy after the oil and gas industry. The territory of Turkmenistan is largely desert with irrigated arable land constituting less than 4% of the total. The most important cash crops are cotton and wheat; cotton is exported after processing into fiber while wheat is consumed domestically. Turkmenistan also produces livestock, as well as fruits and vegetables for domestic consumption.

Prior to the declaration of independence in 1991, Turkmenistan was one of the least developed republics in the Soviet Union and its agriculture was based on cotton monoculture. After 1991, Turkmenistan began raising wheat production, to reduce its dependence on food imports from former Soviet republics, which also had become independent states with independent interests and trade policies (Lerman and Brooks 1998).

Turkmenistan is the only country in Central Asia in which the post-Soviet constitution formally recognized private land ownership. The Constitution, however, only sets general principles, while the definition of ownership as well as practical implementation are left to laws, presidential decrees, and government resolutions. As a result, the actual rights of landowners in Turkmenistan are similar to those of landholders in "lifetime inheritable possession" according to the Soviet Civil Code in the pre-1990 era. Although land received for private farming is classified as privately owned, it cannot be sold, given as a gift, or exchanged. In addition, if privately owned agricultural land is left uncultivated, the owners may lose their private property through administrative measures (Lerman and Brooks 1998).

Prior to the adoption of the new Constitution of May 1992, all land in Turkmenistan was state-owned. Over 95% of the arable land was permanently used by 576 large-scale farms (1,500-2,500 hectares on the average) and

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*Readers with comments or questions are encouraged to contact the authors via email.*

around 2% were allocated in lifetime inheritable possession to rural households (less than 0.2 hectare on the average). The latter produced 20% of gross agricultural product. Land reform started in 1993 with the conversion of household plots from inheritable possession into private ownership. At the same time virgin and unutilized land was transferred from the State Land Fund to private ownership and long-term leases (10-99 years, mainly 10-20 years) of individual farmers.

The agrarian reform program in Turkmenistan combined the recognition of the acknowledged benefits of individual farming with the deeply rooted socialist belief in economies of scale and in the associated central control tools (for details see Lerman and Brooks (1998, 2001), Mkrytichyan et al. (2000), and O'Hara (1997)). In accordance with these principles, in 1995 the traditional collective and state farms were reorganized into 570 associations of leaseholders (daikhan berleshik, or peasant associations). Each leaseholder was allocated state-owned arable land for individual production within the umbrella of the association. Yet the government maintained state procurement orders, especially for the two strategic commodities – cotton and wheat, supplementing it with an extensive system of subsidized inputs and credits. The leaseholders received land for individual production, but no freedom of deciding what to produce. Legislation passed in 1996 facilitated the leasing of land from peasant associations to their members, and in the following year there was a dramatic shift from collective farming in the associations to member leasing. The majority of association farmland is now leased to members. After a two-year probation period, farmers may be given full ownership if the land has been used productively. By contrast, the lease may be revoked if land is not used productively.

In a parallel strand of reform, Turkmenistan encouraged the establishment of so-called peasant (daikhan) farms – independent family farms operating outside associations and enjoying relative freedom from state orders. This freedom, however, had a price: the private farmers were given virgin land in the desert and were required to convert it by themselves into productive irrigated land within two years. Land quality was intended to differentiate private farmers from leaseholders, who received irrigated land within the bounds of their associations. While the conversion of former collective and state farms into leaseholder associations was a unique Turkmen procedure (with some analogies observed only in Uzbekistan), the creation of peasant farms outside traditional collectivist frameworks is a general agrarian reform strategy used in all former Soviet republics.

The present article focuses on the peasant farms of Turkmenistan. It is based on the results of a survey conducted in 2000 on a sample of 143 peasant farmers in four of the five administrative regions Turkmenistan. After a general discussion of the emergence of private farming in Turkmenistan, we present a preliminary analysis of survey findings and try to answer the question posed in the title: Does land reform, as represented by the new subsector of private farms, work in Turkmenistan? Figures and tables given without an explicit source are based on original survey data.

## **2. Emergence of Peasant Farms in Turkmenistan**

The creation of private farms in Turkmenistan was enabled by legislation adopted in 1992-1996. According to the 1993 presidential decree, Turkmen citizen could apply to receive without any payment up to 50 ha of land in private ownership for individual commercial farming. This land, however, was not necessarily arable or irrigated. The presidential decree specifically stipulated that local authorities would allocate land plots for individual commercial farming from reserve lands, virgin lands, and lands not used by farm enterprises (which later became peasant associations). The new farmers were thus expected to "open" virgin lands by their own efforts and using their own resources. Yet the new farmers were in the danger of losing their land if they failed to start farming commercially within two years. The stipulation was probably unrealistic, given the tremendous difficulties that individuals would face in "opening" virgin lands and providing irrigation in the desert. Nevertheless, such "opening" of virgin lands by private farmers since 1993 (115,000 hectares, or 0.3% of all agricultural land) accounts for part of the considerable increase in the irrigated area observed during the recent years. The hardship associated with allocation of virgin lands was partially offset by exempting peasant farmers from taxation for the first five years and making them eligible to receive credit at low interest rates much below the rate of inflation.

Of the 115,000 hectares transferred to peasant farmers as of January 2000, 90,200 hectares are in private ownership and 24,800 hectares are in long-term leases. The fastest pace of land allocation to peasant farming was observed during the first three years after the 1993 decree: 93% of land in private ownership and 59% of the land under long-term leases was allocated up to 1996. During 1996-2000, the land allocated in private ownership increased by a mere 700 hectares and the leased component increased by 8,800 hectares (Figure 1).

According to land records, there were 7,066 peasant farms at the end of 1999. However, only 2,039 farms were registered with the state statistical agencies, and 1,103 provided reports about their activity. These 1,103 peasant farms are the actively producing component of the private farming sector in Turkmenistan, and the 143 peasant farms included in the survey represent 13% of the report providers.

The threat of losing land if it remains uncultivated for more than two years is quite real. In total, peasant farmers have lost nearly 25 thousand hectares due to failure to meet the startup conditions. This happened because in many cases the land received from the state required significant investment due to poor quality and remote location, and not everyone had the necessary financial and technical resources for developing this land.

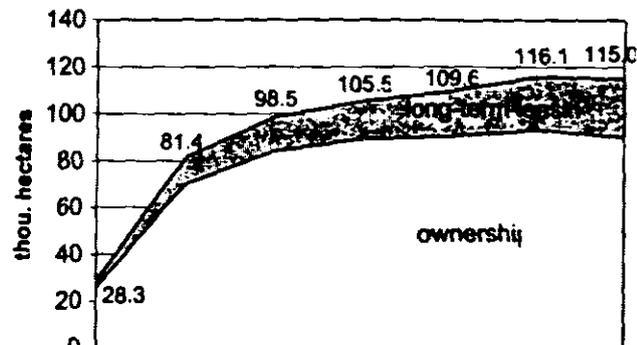


Figure 1 Dynamics of land allocation for creation of private farms (based on official statistics).

### 3. Peasant Farms in the Survey

The survey provides farm-level information about resources and farming activities, as well as the demographic profile of the families of peasant farmers.

#### 3.1 Family profile

The overwhelming majority of farmers in the survey are men (95%). The average farmer is 48 years old, while the average age of all family members is about 30. The mean family size in the sample is 5.6 persons. The educational attainment of farmers is quite high: 58% of respondents report higher education and only 5% have less than 10 years of schooling. This is in a dramatic contrast to the rest of the rural population, where according to a parallel survey only 10% report higher education, while 85% have secondary school background (Lerman and Stanchin 2001). Men generally have a higher educational attainment than women in rural households. Figure 2 shows clear gender differences in the level of education between men and women in farmers' families: most women have secondary education, while men generally continue to acquire some higher education.

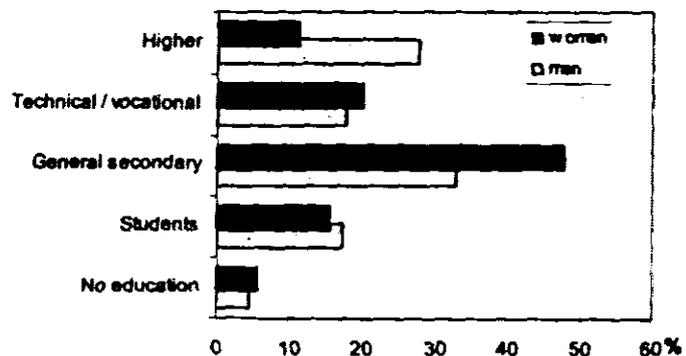


Figure 2 Education level of family members above 15

About 56% of the farmers surveyed previously worked in a farm enterprise (a collective or state farm); the rest worked in industry or services outside agriculture. Farmers had held relatively high positions in their former jobs: 65% of respondents had had managerial or professional jobs, 10% described themselves as qualified workers,

and 15% as administrative staff in their previous position. Private farmers thus bring with them a rich agricultural experience and a high educational attainment to their new occupation.

The land allocated to private farmers is usually far from the village, often in the middle of the desert. As a result, only 14% of respondents live with their families on the territory of the farm, while 57% continue to live in the village run by the peasant association with which the farm is administratively linked and 29% are domiciled in other villages or townships (Table 1). The rural housing is generally deficient in basic amenities. Nearly half the respondents have no running water, no electricity, and no gas in the house. Electricity is reported by 30% of private farmers, gas by 12%, and running water by 4% only.

**Table 1 Where does the family live?**

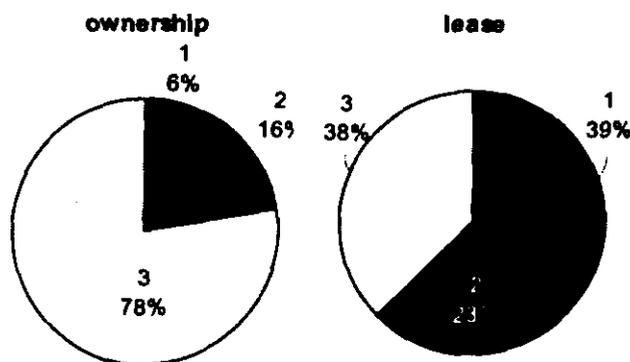
	All farms	Farms using own land	Farms using leased land
On the territory of the farm	14.1	22.4	8.3
In the village of the peasant association	57.0	37.9	70.2
In another village	6.3	8.6	4.8
In the district center	19.0	27.6	13.1
Other	3.5	3.4	3.6

**3.2 Land**

Among the 143 farms surveyed, 60 had land allocated in private ownership and 83 were using leased land. None of the farms reported using both own and leased land. This essentially is a reflection of the existing institutional arrangements for land allocation in Turkmenistan, where the decision on whether land is given in private ownership or leased does not depend on the applicant: it is decided by government land authorities on the basis of certain political considerations, which are totally non-transparent to outsiders.

Farm sizes varied from 1 hectare to 370 hectares, but most farms (88%) did not exceed 50 hectares, which is the legal limit for privately owned land. Farms based on own land averaged 19 hectares, whereas farms using leased land reached larger sizes, averaging 39 hectares. Most of the land is arable (68%), with 0.2% under perennials and 27.5% in pasture. Other land constitutes 4.6% and is not used actively.

Land allocated to peasant farms was classified in three quality categories: 1 — land of satisfactory quality prepared for cultivation, 2 — land prepared for irrigation but requiring further amelioration, and 3 — unprepared virgin land. In line with existing legislation, a large share of land allocated to farmers in the survey was unprepared virgin land from state reserves, which required a large investment in improvement and amelioration. Farmers receiving land in private ownership ended up with much more virgin land than farmers who were given land in long-term lease (Figure 3). Officials probably give the worst land in private ownership, while for the time being retaining better lands in the state reserve.



**Figure 3 Quality of land allocated to peasant farms in private ownership and in long-term lease:**  
 1 — land of satisfactory quality prepared for cultivation,  
 2 — land prepared for irrigation but requiring further amelioration, 3 — unprepared virgin land

In general, farmers were satisfied with the quality of land they had received, although ameliorative improvements were required for 61% of land received in private ownership and 22% of arable land given in long-term lease. Land improvement normally involves leveling rough native terrain, moving large volumes of sand, trucking in equally large volumes of fertile soil from afar, and providing irrigation ditches or pipes from relatively distant water sources. The average cost of development of 1 hectare for the farmers surveyed was about 650 thousand manats<sup>1</sup>, i.e., \$125 at the official rate of exchange and about \$30 at the free-market rate. This is about one-third of the annual net profit per hectare of cotton, but more than two years of profits from wheat production (see Table 5 below for details). In spite of the investment so far, half the arable land in the sample still requires radical improvement. This was reported by 72% of respondents, but only half the farmers said they could afford the cost of land improvement work in the coming 3 years. The main obstacles for improvement are lack of money and machinery (two-thirds of respondents who would not be able to invest in land improvement).

Less than half the respondents reported cultivating their entire land holdings. The main reason for underutilization of land is lack of means for land development, as reported by 41% of respondents. Among other reasons, 19% of farmers noted difficulties with access to farm supplies and machinery, 25% complained about absence or irregularity of irrigation.

### 3.3 Irrigation

Under the prevailing climatic conditions in Turkmenistan, irrigation is indispensable to agriculture and it was developed extensively throughout the cultivable parts of country in the Soviet times. Surface irrigation remains the dominant technique, although micro-irrigation is being introduced on an experimental scale (in 1994, micro-irrigation covered a mere 400 hectares, or 0.02% of total irrigated area) All the main canals, major parts of the inter-farm and intra-farm irrigation networks, and all the collector and drainage networks are above the ground. With such irrigation systems, water loss is up to one-fifth of the intake due to seepage and evaporation (Orlovsky et al. 2001). Yet practically all the respondents (97%) consider furrow irrigation as the most effective method, probably because they do not know any other irrigation methods.

All private farms have access to an external irrigation network or at least to local water sources. Thus, 62% receive water from man-made irrigation networks, 30% of farms irrigate their fields from wells, rivers, or other local water sources, and 8% access other water sources. The distribution of water sources is different for farms based on own land and farms using leased land (Table 2). These differences may affect the quality of water (salinization, contamination).

Although all private farms have access to water, only 20% of farms report receiving water on time and even then much less than the required norms (Table 3). It is hard to expect high yields in the desert under such conditions: expert estimates show that reduction of watering by 10%, 20%, 30%, 40%, or 50% reduces crop yields by 4%, 9%, 15%, 24%, or 36%, respectively (Khamidov et al. 2001). Farmers try to compensate for these shortages by using mineralized water from drainage collectors, lakes, and ground sources. Irrigation with saline water worsens soil quality and depresses crop

Table 2 Sources of water for irrigation, % of respondents

	Water sources		
	local	man-made networks	other
All farms	29.4	62.2	8.4
Farms using own land	16.7	81.7	1.7
Farms using leased land	38.6	48.2	13.3

Table 3 Actual waterings in percent of the norm

	All farms	Farmers using own land	Farmers using leased land
Cotton	55.0	75.7	50.3
Wheat	55.0	56.0	54.4
Vegetables	67.6	71.8	58.1
Alfalfa	63.3	68.3	50.0
Gardens	56.7	56.5	57.1
Vineyard	90.0	100.0	80.0

<sup>1</sup> The national currency, the manat, was introduced in November 1993 with the initial rate \$0.5 for 1 manat. The currency depreciated rapidly. In April 1998, the currency was pegged at 5200 per dollar, close to the market rate. Since then the government has maintained the official rate despite strong excess demand for foreign currency. The parallel exchange rate fell precipitously to over three times the official rate by mid 1999 and to four times the official rate by late 2000.

yields. At present 80% of Turkmenistan's irrigated soils are saline, and salinization reduces output by 40% (Khakimov 1986). During fall-winter, special activities are required to flush the salt from the soil.

No private irrigation schemes exist in Turkmenistan. All are managed by a state agency, and they are generally larger than 10,000 hectares, having been originally designed and built for large collective and state farms. Among the respondents in the survey, only 6% own their irrigation equipment and 6% are responsible for maintaining the irrigation network. Water is allocated to each farm on the basis of standard crop requirements. If a farm exceeds its allocation, a fine is applied, based on the excess water usage. In 1995, the fine was 0.503 manat/m<sup>3</sup>, or 20 cents per 1,000 m<sup>3</sup>. This is a symbolic charge that does not reflect the real value of water. Moreover, the fine is hardly ever applied, because the inefficient and insufficient irrigation prevents farmers from receiving even the minimum amounts of water.

### 3.4 Farm Production

Practically all peasant farmers engage in crop production (Table 4). Livestock is reported by a much smaller proportion of farms: less than 20% of respondents have mixed crop-livestock farming, and only 5% specialize in livestock without any crop production. About 80% of farms grow wheat, although wheat production is substantially less profitable than cotton (Table 5). By contrast, among leaseholders in peasant associations (former collective or state farms) surveyed in a previous study (Lerman and Brooks 2001), 80% grow cotton and only 20% grow wheat. Authorities do not explicitly prescribe what private farmers must produce, while the production specialization of leaseholders in peasant associations is strictly controlled. However, cotton cannot be grown without irrigation, whereas many private farms established on virgin land still suffer from shortage of water. Farms using leased land have better access to local water sources, such as wells and rivers (see Table 2), which are more reliable than the poorly maintained man-made irrigation networks. Better access to water probably explains the higher tendency of these farms to grow cotton (Table 4). Cotton production also requires ten times more labor per ton than wheat (Guchgeldiev 1999), which may be a barrier to the adoption of cotton in family-based private farms.

Table 4 Specialization profile of peasant farmers (% of respondents)

	Crops	Livestock	Crops and livestock	Wheat	Cotton	Vegetables
All farms	77.6	4.9	17.5	81.0	29.4	11.2
Farms using own land	70.0	10.0	20.0	83.3	11.7	16.7
Farms using leased land	83.1	1.2	15.7	78.3	42.2	6.0

Table 5 Comparative costs and profit of wheat and cotton production in 1999 (national data).

	Peasant associations		Private farms	
	Cotton	Wheat	Cotton	Wheat
Sown area, thousand ha	500.9	610.9	13.6	6.8
Yield, ton/ha	1.69	1.53	3.60	1.51
Gross output, thousand ton	844.9	937.2	48.9	10.2
Revenue, billion manat	786.4	397.6	48.8	4.3
Total costs, billion manat	266.4	243.4	21.4	2.5
Total profit, billion manat	520.0	154.2	27.4	1.8
Costs per 1 ton, thousand manat	315.0	260.0	437.0	245.0
Costs per 1 hectare, thousand manat	532.0	398.0	1573.0	367.0
Profit per 1 hectare, thousand manat	1038.0	252.0	2014.0	264.0

Source: Lerman and Stanchin, 2001.

Livestock production (whether specialized or as part of mixed farming) appears to be more widespread among farmers using own land than among those with leased land (see Table 4). Yet the average cattle herd is much larger on farms using leased land: 41 head of cattle compared with 18 head of cattle for farms operating on own land. The opposite is true with respect to poultry, which is more popular among farmers operating on own land: 61%

of the own farms versus 24% of leased farms. The average flock is also much larger – 638 chickens in farms with own land versus only 49 in farms using leased land. Sheep and goats, the traditional animals in Turkmenistan, are reported by less than one-third of farmers with livestock (8% of all farms surveyed). Livestock productivity that emerges from survey data is very low (Table 6) and it is generally comparable with the productivity reported by leaseholders in peasant associations, who achieve milk yields of about 1,200 kg per cow per year and egg laying capacities of about 70 eggs per layer per year (Lerman and Brooks 2001).

The various reasons given by respondents for not going into livestock production mainly reflect capital constraints. Thus, 68% of farmers lack the means to purchase animals, 54% lack facilities for keeping livestock and poultry, and 38% experience difficulties with machinery and purchased inputs.

**Table 6 Herd/flock size, livestock production (per one farm) and productivity (per one animal)**

	Average herd/flock size, heads				Production			Productivity	
	Cattle	Including cows	Sheep and goat	Chickens	Meat, tons	Milk, tons	Eggs, pieces	Milk, kg	Eggs, pieces
All farms	30.3	11.2	106.2	454.2	1.73	11.00	17505	1219	95
Farms using own land	17.6	7.8	117.0	638.5	1.86	10.19	25546	967	91
Farms using leased land	40.9	14.2	95.3	49.0	1.81	13.06	4103	1507	105

The private farmers show a high degree of commercialization. Most of the output is sold. This includes all the cotton, 85% of wheat, 90% of grapes, and about 60% of livestock production (milk, meat, and eggs). On the other hand, more than half the output of vegetables and melons are consumed in the household.

### 3.5 Farm Services: Marketing and Input Supply

Until 1996 all agricultural services, including input supply, processing, and marketing, were the responsibility of the Ministry of Agriculture and Food. After 1996, the responsibility for the main farm services was transferred from the Ministry to a number of autonomous state-controlled service organizations specializing in various farm-related services. Among these parastatals, Turkmenobakhyzmat is responsible for the provision of all services related to the use of machinery, Turkmenpagta provides inputs for cotton production and is responsible for cotton marketing, Turkmengalla is the wheat purchasing agency, and Turkmenmallary controls livestock-related services (including actual ownership of some sheep herds). In addition to managing the flow of services to independent peasant farmers and to leaseholders in peasant associations, these organizations also collect the state subsidies that allow farmers to pay only half price for all inputs, such as machinery, seeds, fertilizers, and herbicides.

Although private farmers have never been subject to any state orders for the production of wheat and cotton, they were originally obligated to sell these strategic commodities to the two parastatals, Turkmengalla and Turkmenpagta, which paid prices far below world market prices, while at the same time subsidizing 50% of input costs. In the late 1990s, producers received only about 40% of the market value of their wheat and cotton, while the input subsidies offset between one-third and one-half of this negative difference (Lerman and Brooks 2001). Agricultural producers in Turkmenistan are thus heavily taxed by the government's price policies. Since June 1996, private farmers are allowed to sell wheat and cotton at freely negotiated prices on the State Commodity Exchange and, in the case of wheat, also in the open market. However, such free sales involve forgoing the input subsidy. Table 7 shows that only a small percentage of respondents channel their wheat and cotton sales through the Commodity Exchange, and most sales continue to be directed to the parastatals, presumably in the interest of securing the substantial input subsidies. Nevertheless, over 20% of wheat sellers report selling their grain in the open market, which is also the main outlet for the unregulated products, such as vegetables, meat, and milk. Since most cotton and wheat is sold through parastatals, over 80% of producers complain that the prices they receive are too low. Many also complain about delays in payment by the marketers (75% of cotton producers and 44% of wheat producers).

Table 7 Channels of sales (% of respondents)

	Wheat	Cotton	Vegetables	Melons	Meat	Milk
Parastatal marketing agencies	71.4	97.2	--	--	--	3.8
Market and consumers	21.0	--	77.8	80.0	77.3	88.5
State Commodity Exchange	5.7	2.8	22.2	20.0	9.1	3.8

Many of the farmers who received land from the state did not have the necessary farm machinery and generally could not afford to buy it. Half the farmers surveyed actually own production assets of one kind or another including machinery and equipment, farm buildings, and other. Own machinery is reported by 35% of farmers; 30% of respondents own tractors, and 12% own trucks. The average farm has 1.1 units of machinery of any kind, and the area serviced by one unit is 19 hectares. The available own machinery is not sufficient for actual farm needs. Most farmers, both with and without own machinery, purchase mechanized field services and transport services from outside sources (Table 8). As a result, despite the limited spread of machinery ownership among farmers, practically everybody has access to machinery services through rental arrangements with parastatals and even private service suppliers (Table 9).

Table 8 Machinery ownership and purchase of machinery-related services by farmers

	% of farmers	% of them purchasing	
		mechanizes field services	transport services
Farmers with any own machinery	35.0	72.0	65.0
Farmers without own machinery	65.0	91.4	88.2

The farmers use the standard range of purchased inputs and farm services. Over 90% of farmers in the survey purchase fertilizers, seeds, and machinery-related services (Table 9). Inputs specific to livestock production are purchased by a relatively small subgroup of respondents, as livestock production is infrequent in the sample. Key inputs are provided by parastatals at 50% discount, but access to subsidies is tied to fulfilling state orders. Since private farmers generally do not produce under state orders, parastatal agencies are not the dominant source for the supply of farm inputs in the survey. Despite the obvious importance of state agencies as input suppliers, more farmers buy their inputs from other private individuals or private commercial firms than from parastatals (except for fertilizers and seed; see Table 9). This is a clear indication of an emergent market system for farm inputs despite the strict government control in Turkmenistan. Peasant associations are of marginal importance as suppliers of farm inputs and provide mainly herbicides, veterinary services, and consulting, which are used by a small proportion of farmers. On the whole, farmers do not report major difficulties with purchasing farm inputs and services. The main complaint concerns high prices and lack of funds.

### 3.6 Banking and Credit

Banking to agriculture in general and to private farmers in particular is the monopoly of the state-controlled Daikhan Bank (i.e., Peasant Bank in English translation). Private farmers are allowed to hold individual accounts and to conduct financial transactions with Daikhan Bank only. Credit to farmers is provided exclusively through special government programs administered by Daikhan Bank. Not surprisingly, over 40% of respondents are dissatisfied with the service they receive from this monopolistic financial institution.

Investment and working capital financing is provided to private farmers through special government programs, which are characterized by deeply negative real interest rates and high levels of credit targeting. Those who accept state orders for wheat and cotton receive credit against the future harvest at 1% interest rate (in an environment where inflation averaged 21% in 1998-99, after subsidizing from more than 1000% annually in 1993-1995). These credits are in addition to the 50% input subsidy, and they cover 35% of total wheat production costs and 25% of cotton production costs (Lerman and Stanchin 2001). Independent private farmers and other agricultural producers operating without state orders are also entitled to subsidized credit, but they have to pay 8-10% nominal interest rates (Presidential decree No. 3626, March 4, 1998). This is higher than for producers working under state orders, but still deeply negative in real terms.

Table 9 Purchase of farm inputs and services (percent of farmers)

Inputs and services	Farmers purchasing the input, %	Source of supply (percent of those who buy the specified input)*				Difficulties with purchase of inputs		
		State supplier	Associations	Individuals	Own production	No problems	High prices	Lack of funds
Seeds and seedlings	94	43	7	10	39	84	12	1
Feed	37	6	9	28	55	21	17	57
Young animals	32	2	2	33	54	21	9	68
Fertilizers	92	55	11	20	2	43	37	6
Manure	88	9	9	16	49	73	7	13
Herbicides	34	31	41	27	--	20	13	39
Farm machinery	72	31	13	46	4	22	23	31
Repairs, maintenance	52	22	3	47	16	15	24	48
Spare parts	52	11	3	82	--	3	35	46
Fuel	58	46	2	47	--	26	15	36
Mechanized field services	93	40	8	40	10	7	31	54
Transport services	91	41	5	42	9	38	34	8
Veterinary drugs	22	6	6	81	35	31	31	3
Veterinary services	30	19	28	42	5	6	13	67
Construction materials	13	6	6	72	--	22	10	59
Construction services	20	4	4	39	4	4	23	67
Expert consulting	29	29	27	34	2	33	3	51

\* May add up more than 100% because the farmers use multiple sources of supply.

Active borrowing – beyond automatic credit for inputs from the Daikhan Bank – is extremely limited among private farmers. Nearly two-thirds of the respondents indicated that they were unable to get any credit. As the main reasons for such severe credit constraints they cited technical complexity of the loan-application system and inability to provide satisfactory collateral due to the absence of mortgage facilities (Table 10). Credit availability does not appear to be a strong constraint.

Table 10 Difficulties in obtaining credit

	Percent of respondents among farmers unable to get credit (65.7% of all farmers)
No mortgage facilities	40.4
Bank requirements too complicated	14.9
Need credit but do not know how to apply	36.2
Credit not available	8.5

Less than 10% of respondents reported actual borrowing in 1999. These few borrowers received loans mainly from formal sources – from state and commercial banks (Table 11). Contrary to smallholders in some other countries, such as Armenia and Georgia, Turkmen farmers do not show special reliance on relatives as a source of loans: a higher percentage of respondents borrow from banks than from relatives. Loans received from banks are larger than informal loans from relatives, and they naturally carry an interest charge. Interest rates from commercial banks are higher than from state banks, and not always negative in real terms. The average loan obtained from banks was 43,800 thousand manat, which is approximately equal to one year of sales for the farmers who borrow.

Table 11 Sources of credit, loan amounts, and interest rates for private farmers in 1999

	% of farmers reporting borrowing	Average loan amount, thousand manat	Interest rate, %
From all sources	9.1*	34,500	n.a
State bank	3.5	47,900	2-15
Commercial banks	3.5	37,000	10-36
Relatives	2.8	27,333	0
Other individuals	0.7	1,800	5

\* This is less than the sum of all sources because one farmer borrowed from three sources.

## 3.7 Outcomes

Despite the rapid growth in the area and the number of private farms since 1993, they account for a very small percentage of agricultural land and agricultural output in Turkmenistan (Table 12). Private farms control one-third of one percent of agricultural land and about 1% of arable land in the country. Cattle herds on private farms increased three-fold between 1997-99, but they still represent merely one-third of one percent of the total number of cattle in the country and about one-tenth of one percent of meat and milk production. The share of private farms in grain and cotton production is higher, approaching 1% of the country's total, but it is marginal by all counts.

Table 12 Share of private farmers in agricultural land and agricultural output in Turkmenistan

Year	Number of farmers	Total area allocated to private farms, thou. ha	Share of private farms in agricultural land, %	Cattle	Meat	Milk	Grain	Cotton
1993	750							
1994	3407	81.4	0.25					
1995	4991	98.5	0.30					
1996	5636	105.5	0.33					
1997	6117	109.6	0.34	0.10	0.084	0.102	0.47	0.18
1998	6809	116.1	0.36	0.13	0.083	0.096	0.74	0.80
1999	7066	115.0	0.35	0.34	0.087	0.130	0.68	3.75

Source: Lerman and Stanchin, 2001 for data about private farmers and that FAOSTAT on-line database for Turkmenistan's total production. No production data for private farms are available prior to 1997. Production shares of private farmers should be treated as very rough order-of-magnitude estimates, because they have been calculated as the ratio of numbers from two highly disparate sources.

So far, private farmers have not been able to achieve higher yields than peasant associations. As noted previously, milk yields range around 1,200 kg per cow per year both for private farms in the survey and for peasant associations. National data indicate that grain yields are somewhat lower for private farms than for peasant associations, while yields of vegetables and melons are much lower for private farms (Table 13). It is only in cotton that private farms show a certain advantage both in 1998 and 1999. These results are quite disappointing, especially in view of the fact that private farms emphasize grain at the expense of cotton (see Table 4 above).

Table 13 Crop yields in peasant associations and private farms (in tons per hectare)

	1998		1999	
	Peasant associations	Private farms	Peasant associations	Private farms
Cotton (raw)	1.29	1.59	2.10	3.60
Cotton fiber	1.25	2.03	1.80	2.21
Grain	1.83	1.67	2.08	1.51
Vegetables	15.10	7.68	15.85	5.79
Melons	10.07	4.17	12.41	5.64

Source: Lerman and Stanchin, 2001

Table 14 Financial performance of the private farms in the survey (in thousand manats per farm)

	1999	2000 est.
Sales	21,259	24,430
Cost of production*	9,989	10,486
Gross profit	11,270	13,944

\*Excluding family labor.

Although private farmers have not achieved higher productivity, their operations appear to be profitable (Table 14). In 1999, the average farm had a gross profit of \$2,700 at the official exchange rate (\$670 at the free-market rate), which is about 55% of total sales revenue. The profitable operation of private farms is a significant achievement in view of the system of government controls that keeps the producer prices artificially below world market prices.

Despite these positive outcomes of the process of reform, the private farmers have not had a measurable impact on the overall agricultural performance because of their marginal role in the country's agriculture. With 44% of the labor force employed in agriculture, the sector accounts for about 20% of GDP, which suggests that labor is still much less productive in agriculture than in other sectors of the economy. Turkmenistan still has a long way to go on the path of reform if it is to achieve significant improvements in productivity and efficiency of agriculture.

#### **4. Constraints for Private Farming in Turkmenistan**

The development of private farming in Turkmenistan is hampered by institutional, technological, and financial conditions. The main difficulties they face are unfavorable natural conditions (poor soil, scarce water, inefficient irrigation); lack of funds for purchasing inputs and undertaking farm operations; lack of necessary farm management skills; uncertain property rights; low government-controlled prices; and export barriers.

One potential advantage of transferring agricultural land to private ownership is to stimulate family investment in the farm. However, the new private farmers come from the ranks of former collective-farm workers, who were notoriously poor and did not bring with them any startup capital to the new venture. Moreover, the legal framework in Turkmenistan prohibits virtually all transactions in land, which suggests severely circumscribed ownership rights and uncertain security of tenure. Therefore, farmers are understandably reluctant to invest in their land, which is reflected in low willingness to borrow. Farmers are not investing in the development of higher yielding technologies and in quality seed stocks, while the state will remain unable to fund significant investments in agricultural in the foreseeable future. Altering priorities led to a reduction of state investment in agriculture. The capital-intensive oil and gas sector now dominates the government's investment priorities: its share in total investment increased from 9% in 1994 to 48% in 1999. The share of agriculture in total investment accordingly declined from 15% in 1994 to a mere 2% in 1999, although this sector employs almost half the population (Pomfret 2001).

The pervasive government intervention in agriculture imposes a heavy implied tax on producers. The government-controlled prices for the two strategic commodities – wheat and cotton – are so low that even the seemingly generous subsidies that farmers receive in the form of inputs and credit are insufficient to offset the extraction of funds from agriculture. Although recent legislation allowed some trade liberalization, the domestic market is limited domestically and individual farmers do not have access to export markets. In practice, most farmers are forced to sell to the state at prices much below world market prices for their products.

#### **5. Conclusion**

Commercial individual farming in Turkmenistan is conducted on privately owned or leased land using mainly family labor. In principle, private farmers have the right to decide what to produce and are allowed to conclude voluntary business contracts with legal entities or individuals for the sale of their products at freely negotiated prices. In practice, the pervasive system of government subsidies and interventions often prevents farmers from exercising these options.

Distribution of land for individual use and the introduction of private responsibility for production provide incentives to increase productivity and efficiency in agriculture. However, despite the growth in numbers and total area, private farms still cultivate only a small percentage of agricultural land and account for a minute share of agricultural production. Private farmers diligently open virgin lands without funds, skills, or machinery. They even manage to show a profit, although it may be inadequate given the risks involved in private farming in Turkmenistan. The land reform in Turkmenistan works, but it still has not produced measurable impacts on Turkmen agriculture.

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**Notes**

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## ПРЕДПОСЫЛКИ И СОСТАВНЫЕ ЧАСТИ ЗЕМЕЛЬНОЙ РЕФОРМЫ В ТУРКМЕНИСТАНЕ

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Туркменистан является единственной страной в Центральной Азии. Конституция которой официально признает частную собственность на землю. До ее принятия - 18 мая 1992 г., вся земля в Туркменистане находилась в государственной собственности. Такая исключительная собственность на землю уходит корнями в советский Декрет о земле от 1917 г., которым вся земля была национализирована. Туркменистан на истоке Независимости унаследовал типичную двойную модель землевладения от бывшего СССР. Большая часть сельскохозяйственных угодий – 87%, а пашни – 94% находилось в постоянном пользовании крупных 365 колхозов, 136 совхозов, 77 межхозяйственных сельскохозяйственных предприятий. Средняя площадь колхоза по размеру используемой пашни составляла в 1990 г. 2360 га, хлопководческого совхоза - 5-7 тыс. га, а в среднем с учетом каракулеводческих совхозов в большинстве не имеющих орошаемых земель – 2030 га. В общественном производстве этих хозяйств было занято 375,1 тыс. человек, а в расчете на одного работающего нагрузка пашни составляла более трех гектар. Кроме общественного существовала форма индивидуального пользования земель, доля которого в земельном фонде страны по площади сельхозугодий составляла менее 0,1% и по площади пашни – около 2%.<sup>1</sup>

На начальном этапе перехода к рыночной экономике правительству Туркменистана поступали самые различные предложения по методам проведения земельной реформы: распределение земли по паям, всеобщее равное и пропорциональное распределение земли в расчете на одного гражданина Туркменистана, акционирование, оценка земли и выкуп за счет собственных средств, распределение земли по жребью, а также ваучерная и другие. Но все предложенные варианты Президентом Туркменистана Сапармуратом Туркменбаши были отвергнуты как несостоятельные, а избран уникальный подход к земельной реформе и реорганизации сельскохозяйственных предприятий, который в корне отличается от порядка и механизмов, взятых на вооружение другими республиками бывшего Союза.

По избранной Президентом Туркменистана программе земельная реформа осуществляется с охватом всех форм земельного пользования и хозяйствования. Но ее осуществление проводится не сразу, а постепенно, поэтапно. Несмотря на то, что земельная реформа осуществляется в различных формах собственности и хозяйствования, ее содержание следует рассматривать как единое целое. Так, формирование частных фермерских хозяйств следует рассматривать также и как реорганизацию крупных хозяйств, а реорганизацию связывать с арендными отношениями, через которые также идет процесс постепенного формирования дайханских (фермерских) хозяйств.

**Реформа приусадебного землепользования.** Первая составная часть земельной реформы в Туркменистане, как и в других республиках бывшего Союза состояла в увеличении числа приусадебных участков и нормы наделения землей в расчете на одну семью. Вопросы приусадебного земельного пользования населением, как и других пользователей земельного фонда, находились в советский период под жестким государственным контролем. Приусадебные земельные участки систематически обмерялись землеустроительной службой. Перед администрацией стояла главная задача не допустить увеличения площади приусадебного земельного участка, поскольку земля рассматривалась в качестве источника богатства, а богатым человеком при социалистической системе быть не разрешалось. При превышении площади приусадебного земельного участка установленной нормы отсутствовали налоговые сборы и пени, но возникали абсурдные ситуации вырубки плодоносящих многолетних насаждений, распашки посевов овощных и зерновых культур. Если даже под дополнительные площади приусадебного пользования были использованы пустующие земли, которые вообще не использовались, то не взирая на это и независимо от площади, данный факт рассматривался как уголовно наказуемое преступление. Уголовным кодексом это рассматривалось как «Самовольный захват, распашка и засев земли, находящейся в пользовании совхозов, колхозов и других государственных или общественных организаций...», который «...наказывается лишением свободы на срок до двух лет или исправительными работами на срок до одного года, или штрафом в размере до трехсот рублей с конфискацией урожая».<sup>2</sup>

В то же время, несмотря на то, что общественное сельское хозяйство было вооружено значительными производственными мощностями, укомплектовано кадрами, имеющими специальное образование, и в него направлялся весь объем инвестиций, по производительности труда и объему продукции, получаемому в расчете на единицу орошаемой площади, оно значительно уступало мелкотоварному парцеллярному личному подсобному хозяйству. Используя до 3% орошаемого земельного фонда, личные подсобные хозяйства населения систематически производят продукцию, которая значительно превышает производительную способность общественного сектора.

Высокая эффективность производства в личных подсобных хозяйствах обусловила в числе первоочередных направлений проведения земельной реформы в Туркменистане увеличение площадей земель приусадебного пользования. Если в 1990 г. в приусадебном пользовании было 51,9 тыс. га, то уже в 1992 г. площадь земель на приусадебных участках увеличилась почти вдвое и составила 101,9 тыс. га. За период земельной реформы 254 тыс. семей получили в приусадебное пользование земельные участки, и еще 368 тыс. семей расширили приусадебное земельное пользование в среднем в 1,5 раза. Общее количество семей, владеющих на правах собственности приусадебными землями возросло по сравнению с 1990 г. в 1,7 раза и составило на 1 января 2002 г. 622,4 тыс. Земельная площадь в приусадебном пользовании за этот же период возросла в 2,5 раза и составила 132,8 тыс. га.

Интенсивно стала возрастать площадь пашни и многолетних насаждений в приусадебном пользовании. За 1990-2001 гг. площадь пашни возросла с 30,1 тыс. га до 91,9 тыс. га, или более чем в три раза, многолетних насаждений – с 7,4 тыс. га до 12,1 тыс. га, или в 1,6 раза. Если в структуре пашни приусадебные земли занимали в 1990 г. 2,4%, то в 2001г. - 5,6%.

Прирост пашни и многолетних насаждений в приусадебном пользовании позволил значительно увеличить объемы производства сельскохозяйственной продукции в частном секторе.

**Земельная реформа дачных садово-огородных участков.** Земли гражданам для организации дачных садово-огородных участков выделялись в целях максимально возможного обеспечения населения продуктами питания собственного производства.

Дачные садово-огородные участки являются одной из составных форм частного использования земли в Туркменистане. Земли для их организации стали выделяться в Туркменистане в середине 80-х гг., а выделение земель для дачных садово-огородных участков было оговорено массой всевозможных условий, ограничивающих условия использования земель, площадь застройки, этажность и т.д.

В результате целенаправленной работы за годы независимости были выделены крупные массивы земель для организации дачных садово-огородных участков, которые в настоящее время образовали зеленые зоны, окружающие город Ашхабад – столицу Туркменистана и другие города, административные центры этрапов, поселки городского типа.

На 1 января 2002 г. в Туркменистане владельцами садово-огородных участков было 47,1 тыс. семей, которые имели в собственности 3,7 тыс. га. Средняя площадь земельного участка составила 0,08 га, в том числе пашня – 0,03 га, многолетние насаждения- 0,02 га.

**Земельная реформа по созданию частных хозяйств.** Второй составной частью земельной реформы является создание частных производителей. Согласно указу Президента Туркменистана от 2 февраля 1993 г. «О праве владения и пользования землей в Туркменистане» граждане Туркменистана могут получить землю в собственности до 50 га для ведения товарного сельскохозяйственного производства. При этом земли предоставляются не из числа пахотных и используемых в сельском хозяйстве, а из состава резервных, которые по своим свойствам в сельском хозяйстве не использовались. Согласно земельному законодательству Туркменистана каждый гражданин страны имеет право на получение земельного участка в частную собственность. Концепция частной собственности на землю является лимитированной, земля предоставляется в наследуемое пожизненное владение без права продажи, дарения, обмена. Вовлечение таких земель в сельскохозяйственный оборот было сопряжено с большими затратами на мелиоративное улучшение, проведение работ по выравниванию и вертикальной планировке. Поскольку многие выделенные земельные участки находились выше водных источников, для их орошения требовалось строительство водопольемных установок и насосных станций. Из-за отсутствия средств не все новые фермеры, получившие земельные участки такого качества, могли их использовать. В то же время по условиям земельного законодательства фермеры, не использовавшие землю в течение двух лет, теряли право на собственность и земля у них изымалась. По всей вероятности, такой механизм предоставления земли в собственность был чрезвычайно жестким, особенно с учетом абсолютного равнодушия банковских структур, которые игнорировали просьбы новых фермеров по предоставлению кредитов. Несмотря на то, что постановлением Президента Туркменистана от 28 декабря 1994 г. утверждено «Положение о порядке кредитования инвестиционных проектов»,<sup>3</sup> которым предусмотрены источники кредита, условия предоставления и возврата, все же этот законодательный акт остался нереализованным. В этой связи многие фермеры, представившие документацию для получения кредита, так его и не получили, не смогли освоить земли и в итоге она у них была изъята.

Тем не менее, начиная с 1993 г., в Туркменистане начался процесс формирования частных хозяйств, ориентированных не на само обеспечение, как это имеет место в случае с личными подсобными хозяйствами, а на товарное сельскохозяйственное производство.

Несмотря на значительные препятствия и низкое качество земли, выделяемой в частное земледелие, все большее число частных лиц стало подавать заявления на получение земли в частную собственность. Этот процесс дал начальный толчок движению в развитии частных дайханских (фермерских) хозяйств в Туркменистане.

Если на первой ступени земельной реформы дайханское (фермерское) хозяйство формировалось за счет неиспользуемых земель, то с принятием закона Туркменистана «О дайханском хозяйстве» предусматривалась возможность организации и выделения земель из состава землепользования колхозов, совхозов и других сельскохозяйственных предприятий, т. е. из состава земель, которые обладают качественными свойствами и используются. Таким образом, если законодательный акт от 2 февраля 1993 г. предусматривал сохранение существующих землепользований колхозов и совхозов, то на второй ступени земельной реформы закон «О дайханском хозяйстве» предусматривал их трансформацию.

И, наконец, в качестве третьей ступени проведения земельной реформы по формированию частных земледельцев, следует считать направления, определяемые законом Туркменистана от 30 декабря 1996 г. «О предоставлении земли в собственность граждан для ведения товарного сельскохозяйственного производства». Механизм реализации этого закона позволил решить важнейшую проблему земельной реформы – установить размер земельного участка, выделяемого в собственность, проблему распределения земельной собственности между дайханами Туркменистана, определил условия наделения землей. Законом предусмотрена постепенная передача земли в частную собственность семьям и отдельным арендаторам, в течение двух лет хозяйствования выполнявшим условия договора аренды и доказавшие своё умение трудиться на земле.

**Реорганизация крупных хозяйств.** Третьей составной частью земельной реформы в Туркменистане является реорганизация традиционных крупных хозяйств. Крупные сельскохозяйственные предприятия продолжают доминировать в сельском хозяйстве Туркменистана, несмотря на рост индивидуального сектора в виде частных хозяйств на приусадебных участках, дачных садово-огородных участков и дайханских (фермерских) хозяйств.

Радикальная мера по реорганизации крупных хозяйств, была объявлена в постановлении Президента Туркменистана от 28 марта 1994 г. «О реформировании колхозов, совхозов, и других сельскохозяйственных предприятий Туркменистана». Крупные хозяйства намечалось преобразовать в объединения крестьянских хозяйств, акционерные общества и кооперативы, ассоциации и другие сельскохозяйственные предприятия различных форм собственности. Работникам разрешалось свободно выбирать предпочитаемую им форму организации. Земля передавалась в постоянное пользование вновь созданным организационным структурам, и сельскохозяйственное имущество предоставлялось в аренду с правом выкупа. Этот механизм реорганизации не позволял приватизировать землю и не давал возможности распределять земельные доли и имущественные пай индивидуальным членам хозяйств. Вместе с тем, этот механизм предусматривал реорганизацию существующих крупномасштабных предприятий в хозяйства разнообразных организационных форм, причем каждое из них имело право прямого контроля своих ресурсов.

С методических и организационных позиций эта программа земельно-водной реформы была достаточно подробно отработана. Было решено начать земельную реформу в 58 хозяйствах, которые по размещению охватывали все велааты Туркменистана. Хозяйства, намеченные для реорганизации, за исключением некоторых, относились к низко рентабельным и хронически убыточными. Экономически сильные хозяйства, входящие в состав общей программы реорганизации, начали собственную программу внутренней реорганизации еще до выхода указанного постановления от 28 марта 1994 г. и их предусматривалось использовать в качестве образцово-показательных для примера другим хозяйствам Туркменистана.

В силу ряда причин программа так и не была осуществлена. Считается, что решение начать реорганизацию со слабых хозяйств ограничило успех программы. Опыт других стран показывает, что экономически отсталые хозяйства являются относительно слабыми кандидатами для реорганизации, поскольку их активы, как правило, являются изношенными и недостаточными, и поэтому перспективы финансового успеха даже при оптимальной организации часто туманны.

Факторы, характеризующие уровень экономического развития хозяйств, безусловно оказали влияние на осуществление программы земельной реформы. Однако, отдавать им дань преимущественного влияния все же не следует. По нашему мнению, проблема не была решена из-за неадекватности подготовленности общества намеченным реформам. С точки зрения человеческого фактора она входила в явное противоречие с уровнем подготовленности населения к ее проведению такими методами.

Известно, к чему, каким результатам привели экономические реформы и земельные преобразования, в частности, проведенные без достаточной подготовленности к ним людей в России, на Украине, Армении и других странах СНГ. Согласно данным, предоставленным ФАО и статистическому агентству СНГ, после 1990 г. производство в сельском хозяйстве Казахстана, Кыргызской Республике сократились к 1996 г. примерно на

40%, объемы производства в Таджикистане сократились еще больше, в основном, из-за гражданских волнений. В Республике Узбекистан объемы производства сократились в меньшей степени, примерно на 20 %.<sup>4</sup>

Новая программа экономической и земельно-водной реформ началась в Туркменистане в июне 1995 г. В соответствии с указом Президента Туркменистана от 15 июня 1995 г. были упразднены и распущены колхозы и совхозы, а на их базе организованы крестьянские объединения. В законе Туркменистана от 15 июня 1995 г. «О крестьянских объединениях», изданном в соответствии с вышеназванным указом с инструктивными положениями содержались меры, предусмотренные для того, чтобы сдвинуть сельскохозяйственный сектор к более значимой и глубокой реорганизации.

Согласно закону крестьянскому объединению передавалась вся земля и имущество, ранее использовавшееся крупным хозяйством, на базе которого оно было создано. Также бесплатно передавались активы, в то время как земля оставалась государственной собственностью и передавалась крестьянскому объединению в пользование. Преобразование колхозов, совхозов и других сельскохозяйственных предприятий в государственную форму хозяйствования - крестьянские объединения устранило проблему распределения земли и имущества колхозов по паям и долям. Членство в крестьянском объединении носит добровольный характер. При выходе из состава крестьянского объединения его члены могут забрать личное имущество и приусадебный земельный участок. Однако они не получают имущества крестьянского объединения, поскольку оно не подлежит разделению на пай между его членами. Также работник крестьянского объединения, выходящий из его состава, не получает земельной доли из фонда земель хозяйства. Для всех сельскохозяйственных предприятий и граждан были созданы равные стартовые и правовые условия получения имущества и земли.

Крестьянские объединения наделялись широкими правами и полномочиями использования земли и имущества. Они могли создавать независимые внутренние организационные формы, включая арендные хозяйства, дайханские (фермерские) хозяйства растениеводческой и животноводческой специализации, агросервисные формирования и другие хозяйственные структуры, работающие на принципах рентабельности. Имущество и активы можно было передать структурным внутрихозяйственным подразделениям в собственность, в то время как землю разрешалось передавать только в аренду.

Крестьянское объединение наделялось правами управления земельными ресурсами, используемыми бывшим сельскохозяйственным предприятием и оно, наряду с правами, несло ответственность за рациональное использование земли вторичным пользователем, т. е. предоставленным в под аренду. Такое положение редко встречается в других странах мира, однако напоминает практику в Израиле, где большие площади государственной земли сдаются в аренду сельским объединениям (мошав), которые затем сдают ее в под аренду своим членам. Однако следует отметить, что принятая в Израиле практика в последние годы подвергается критике, и рассматриваются возможности ее изменения, чтобы позволить производителям напрямую арендовать землю у государства. В Туркменистане крестьянское объединение отвечает за то, чтобы земельные ресурсы использовались по целевому назначению (например, для выращивания сельхозкультуры, указанной в договоре аренды), и полностью отвечает за ущерб, нанесенный в связи с неэффективным землепользованием, в частности, загрязнение окружающей среды и прочие нарушения.

**Внутрихозяйственная аренда.** В соответствии с законом Туркменистана «Об аренде и арендных отношениях» *«Аренда представляет собой основанное на договоре срочное возмездное владение пользование землей, иными природными ресурсами, предприятиями и другими имущественными комплексами, а также иным имуществом, необходимым арендатору для самостоятельного осуществления хозяйственной или иной деятельности».*<sup>5</sup>

При аренде четко разделены правомочия собственности. Функции распоряжения и пользования переходят к арендатору, права собственности сохраняет арендодатель, которому выделяется рента в виде процента от стоимости продукции созданной арендатором. Другая составная часть прибыли - предпринимательский доход при аренде сливается с оплатой труда арендатора. Таким образом, аренда позволяет соединить роль работника и хозяина, создает условия свободного предпринимательства, что особенно важно. Арендные отношения получили начальное распространение в Туркменистане с 1988 г., когда в соответствии с разработанными рекомендациями стали внедряться в сельскохозяйственных предприятиях.<sup>6</sup>

В период перехода экономики Туркменистана к рыночным отношениям внутрихозяйственная аренда принята в качестве основного метода хозяйствования в аграрном секторе. Значимость внутрихозяйственной аренды в экономике сельского хозяйства и масштабы ее расширения отражены в программе Президента Туркменистана по углублению рыночных реформ и социально-экономического развития Туркменистана в 1996 г. Основное отличие намеченных мер по развитию аренды состояло в том, что договор аренды носил уже долгосрочный характер, а земля и имущество крестьянских объединений стали передаваться в долгосрочную аренду на срок не менее 10 лет, что обеспечило достаточную гарантию землепользования. Опыт других стран мира показал, что аренда даже на 10 лет является недостаточным сроком для стимулирования инвестиций в земельные угодья или закладку многолетних насаждений. Кроме того, арендатор получал потенциальное право получить арендованный земельный участок в собственность, если в течение двух лет испытательного периода смог показать хорошие производственные результаты.

Таким образом, аренда служит также инструментом плавного перехода к отношениям собственности и формирования частного производителя. Поэтому в условиях переходного периода к рыночной экономике, когда общественные формы производства являются доминирующими, вопросы формирования частных производителей и мотивационного воздействия на результаты труда в сельском хозяйстве Туркменистана следует рассматривать через систему арендных отношений.

Особо следует отметить следующие два преимущества аренды. Во-первых, это выравнивание стартовых условий, чего нельзя добиться простой раздачей собственности. Во-вторых, решение проблемы накопления, при которой из процентных или долевых выплат будет формироваться и развиваться социальная система и селитебная зона в которой проживает семья арендатора. Тем самым будет устранена возможность «проедания» части прибыли. В арендных отношениях, сформировавшихся в Туркменистане, система государственных закупочных цен гибко сочеталась с возможностью расширенного производства, а также со складывающейся экономической ситуацией и переходом в условиях инфляции от фиксированной арендной платы к натуральным взаиморасчетам и долевым отчислениям от стоимости продукции, созданной арендатором.

Арендные отношения в Туркменистане, исходя из складывающейся экономической ситуации, получают постоянное развитие. Так, в процессе постепенных изменений сложилась система внутривладельческой аренды, при которой арендатору государство оказывает значительные льготы. Если арендатор (на производстве хлопка-сырца, пшеницы и риса) пользуется льготами, то он обязан продавать продукцию по твердым государственным закупочным ценам. Но арендатор имеет право самостоятельно и по свободным ценам реализовать на внутреннем рынке любую производимую им продукцию. При этом льгот он, естественно, лишается.

#### *Итоги земельных преобразований.*

Земельная реформа – одно из важнейших преобразований, которое проводится в Туркменистане еще и с учетом национальных особенностей, менталитета туркменского народа. В результате проведения земельной реформы в Туркменистане создан частный сектор сельскохозяйственных производителей, и в обществе произошли значительные изменения. Прежде всего, в корне изменилась законодательная и правовая базы, которые стали основой институциональных преобразований. Кардинально изменилась банковская, финансовая, налоговая система, создан финансовый, кредитный и страховой рынок, изменена система управления сельским хозяйством, изменены приоритеты и методы хозяйствования.

Площадь земель в частном секторе в 2001 г. по сравнению с 1990 г. увеличилась в 4 раза. Площадь пашни и многолетних насаждений, используемых в этом секторе, увеличилась с 37,5 тыс. га до 159,9 тыс. га, или в 4,2 раза. Из общей площади земель, используемых в частном производстве, на долю приусадебных земель приходится 61%, дайханских (фермерских) хозяйств – 37%, садово-огородных участков – 2%.

Итоги осуществления реформ претворились в значительный экономический рост страны во всех отраслях и сферах экономики. За 1991-2001 гг. построено свыше 150 новых промышленных предприятий. Добыча нефти увеличилась в 1,8 раза, производство хлопчатобумажных тканей – в 2,4 раза, трикотажного полотна – в 6,3 раза, трикотажных изделий – в 2,6 раза, хлопчатобумажной пряжи – в 10,3 раза. Решена проблема продовольственной безопасности страны. Производство пшеницы на душу населения увеличилось в 10 раз. Валовая продукция сельского хозяйства в 2001 г. по сравнению с 1991 г. в сопоставимых ценах возросла в 2 раза.<sup>8</sup>

Результаты проведенного исследования свидетельствуют о том, что сама по себе земельная реформа, не подкрепленная другими преобразованиями в управлении, хозяйствовании, финансовой и банковской системе, агросервисном обеспечении, и главное – не прошедшая через человеческое осознание необходимости качественного изменения – никогда не даст положительного результата.

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## YER ÖZGERTMESISINI DÜZÜM BÖLEKLERI WE ŞERTLERI

Stançin I., ykdysady ylmlaryň doktory  
Türkmenistanyň Milli döwlet hasabaty we maglumatlar instituty  
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Ierusaliminyň yewreý uniwerstiteti

1 Türkmenistan Merkezi Aziýada Konstitusiyasy ýere şahsy eýeçiligi resmi edýän ýeke-täk ýurtdyr. Onuň 1992-nji ýylyň Magtymkuly aýynyň 18-ine kabul edilmegine çenli, Türkmenistanda ähli ýer döwlet eýeçiliginde durýardy.

2. Bazar ykdysadyýetine geçilmeginiň ilkinji döwürlerinde Türkmenistanyň hökümetine ýer özgertmesini geçirmegiň usullary boýunça has dürli teklipler gelip gowuşdy: ýerleri näý boýunça paýlamak, Türkmenistanyň bir raýatynyň hasabyndan ýeri ähliumumy deň we gatnaşykda paýlamak, paýdarlaşdyrmak, ýere baha kesmek we öz serişdäň hasabyna satyn almak, ýeri bije boýunça paýlamak we beýlekiler. Ýöne ähli teklipler edilen görmüşlerden ähtibarsyz hökmünde Türkmenistanyň Prezidenti Saparmyrat Türkmenbaýy tarapyndan ýüz öwrüldi, ýer özgertmesine we oba hojalyk kärhanalaryny gaýtadan guramaga täsin çemeleşme saýlanylýp alyndy. Ol öňki Soýuzyň beýleki respublikalarynda hereket edýän tertiplerden we mehanizimlerden düýpgöter tapawutlanýar.

3. Türkmenistanyň Prezidenti tarapyndan saýlanylýp alnan maksatnama boýunça ýer özgertmesi ýerden peýdalanmagyň we eýeçilik etmegiň ähli görmüşlerini çekmek bilen amala aşyrylýar. Ýöne ol birbada däl-de, kem-kemden, döwürler boýunça geçirilýär. Muňa garamazdan, ýer özgertmesi hususyýetçiligiň we eýeçilik etmegiň dürli görmüşlerinde amala aşyrylýar, onuň mazmunyna bir bütewilik hökmünde seretmek gerek.

4. *Mellek ýanyndaky ýerden peýdalanmagyň özgertmesi.* Türkmenistanda ýer özgertmesiniň ilkinji düzüm bölegi, öňki soýuzyň beýleki respublikalarynda bolşy ýaly mellek ýanyndaky parçalaryň sanyny artdyrmakdan we bir maşgala başyna hasapdan ýerleri paýlamagyň kadasyndan durýardy. Ýergurluşyk işleri raýatlaryň bagbançylyk-bakjaçylyk ýer parçalarynyň golaýynda bölünip berlen ýerler boýunça ugurdaşlykda geçirildi.

5. *Şahsy hojalyklary döretmek boýunça ýer özgertmesi.* Ýer özgertmesiniň ikinji düzüm bölegi şahsy öndürijileri döretmek hasaplanylýar:

a) Türkmenistanyň Prezidentiniň 1993-nji ýylyň Baýdak aýynyň 2-sindäki “Türkmenistanda ýerden peýdalanmak we eýelik etmek hukugy hakyndaky” kararyna laýyklykda Türkmenistanyň raýatlary haryt oba hojalyk önümçiligini ýola goýmak üçin 50 gektara çenli ýeri hususyýetçilige aldylar. Ýerler sürüm we oba hojalygynda ulanylýan ýerleriň hataryndan däl-de, ätiýaçlyk ýagny öz häsiýetleri boýunça oba hojalygynda ulanylmadyk düzümden hödürlenildi;

b) eger ýer özgertmesiniň birinji basgançagynda peýdalanylmaýan ýerleriň hasabyna daýhan (fermer) hojalyklary emele gelen bolsa, onda Türkmenistanyň “Daýhan hojalygy hakyndaky” kanunyň kabul edilmegi bilen kolhozlaryň, sowhozlaryň we beýleki oba hojalyk kärhanalarynyň ýer peýdalanyşynyň düzüminden, ýagny olaryň eýeleýän oňat hilli we peýdalanýan ýerleriniň düzüminden ýer bölüp bermegiň we guramagyň mümkinçiligi göz önünde tutulypdy. Şeýlelikde, eger 1993-nji ýylyň Baýdak aýynyň 2-sindäki kanunçylyk nama kolhozlaryň we sowhozlaryň dowam edýän ýerden peýdalanylyşyny saklamagy göz önünde tutdy, onda ýer özgertmesiniň ikinji basgançagynda “Daýhan hojalygy hakyndaky” kanun olaryň başga görmüşde geçirilmegini göz önünde tutdy;

c) ahyrsoňky hem, 1996-njy ýylyň Bitaraplyk aýynyň 30-yndaky “Haryt oba hojalygy önümçiligini ýola goýmak üçin raýatlaryň eýeçiligine ýerleri bermek hakyndaky” Türkmenistanyň kanuny bilen kesgitlenilýän ugruny şahsy ekerançylary döretmek boýunça ýer özgertmesini geçirmegiň üçünji basgançagy hökmünde hasaplamak gerek. Bu kanunyň durmuşa geçirilmeginiň mehanizmi ýer özgertmesiniň möhüm meselesini çözmäge – eýeçilige bölünip berilýän ýer parçasynyň möçberini anyklamaga, Türkmenistanyň daýhanlarynyň arasynda ýer eýeçiliginiň paýlamak meselesini çözmäge mümkinçilik berdi, ýerleri bölmegiň şertlerini kesgitledi. Hojalygy dolandyrmagyň iki ýylynyň dowamynda kärende şertnamasynyň şertlerini ýerine ýetiren we ýerde zähmet çekmäge öz başarnygyny subut eden aýry-aýry kärendeçilere we maşgalalara kanun bilen şahsy eýeçilige kem-kemden ýer bermek göz önünde tutuldy.

**6. Uly hojalyklaryň gaýtadan döredilmegi.** Türkmenistanda ýer özgertmesiniň üçünji düzüm bölegi adaty uly hojalyklary gaýtadan döretmekdir. Uly hojalyklary gaýtadan döretmek boýunça çürt kesik çäreler Türkmenistanyň Prezidentiniň 1994-nji ýylyň Nowruz aýynyň 28-indäki “Türkmenistanyň kolhozlaryny, sowhozlaryny we beýleki oba hojalyk kärhanalaryny özgertmek hakyndaky” kararynda yglan edildi. Uly hojalyklary daýhan hojalyklarynyň birleşiklerine, paýdarlar jemgyýetlerine we koperatiwlerine, assosiasiyalaryna we eýeçiligiň dürli görmüşli beýleki oba hojalyk kärhanalaryna öwürmek bellendi. Işgärlere halan guramalarynyň görmüşini erkin saýlap almaga rugsat edildi. Ýer

täzeden döredilen kärhana gurluşlara hemişelik peýdalanmaga berildi we oba hojalyk emläkleri kärendeçilige satyn almak hukugy bilen berildi.

7. Türkmenistanyň ykdysadyýetiniň bazar gatnaşyklaryna geçýän döwründe içki hojalyk kärendesi agrar bölümde hojalygy dolandyrmagyň esasy usuly hökmünde kabul edildi. Oba hojalygynyň ykdysadyýetinde içki hojalyk kärendesiniň ähmiýeti we onuň möçberleriniň giňelişi 1996-njy ýylda Türkmenistanyň bazar özgertmeleriniň çuňlaşdyrylyşy we durmuş-ykdysady taýdan ösüşi boýunça Türkmenistanyň Prezidentiniň maksatnamasynda şeýle hem 1995-nji ýylyň Bitaraplyk aýynyň 27-sindäki “1996-njy ýylda daýhan birleşikleriniň özgertmessi boýunça goşmaça çäreler hakyndaky” kararda görkezilendir. Şoňa görä bazar ykdysadyýetine geçi döwrüniň şertlerinde, haçanda jemgyýetçilik görmüşdäki önümçilik agalyk etse, Türkmenistanyň oba hojalygynda hususy öndürijileriň döreýşi we zähmetiň netijesine esaslandyryjylykly täsir etmek meselelerine kärende gatnaşyklary arkaly seretmek gerek.

8. Ýer özgertmesiniň amala aşyrylmagy netijesinde jemgyýetde ep-esli üýtgetmeler bolup geçdi. Ozaly bilen kanunçylyk we hukuk esaslary düýpgöter üýtgedi, olar institusional özgertmeleriň esasy boldy. Bank, maliýe, salgyt ulgamy düýpgöter üýtgedildi, maliýe, karz we ätiýalandyryş bazary döredildi, oba hojalygyny dolandyryş ulgamy üýtgedildi, hojalygy ýöretmegiň ileri tutulýan ugurlary we usullary üýtgedildi.

Changing Land and Water Use Patterns in Central Asia  
*Organized Symposium, AEEA Annual Meetings,  
Montreal, July 28-30, 2003*

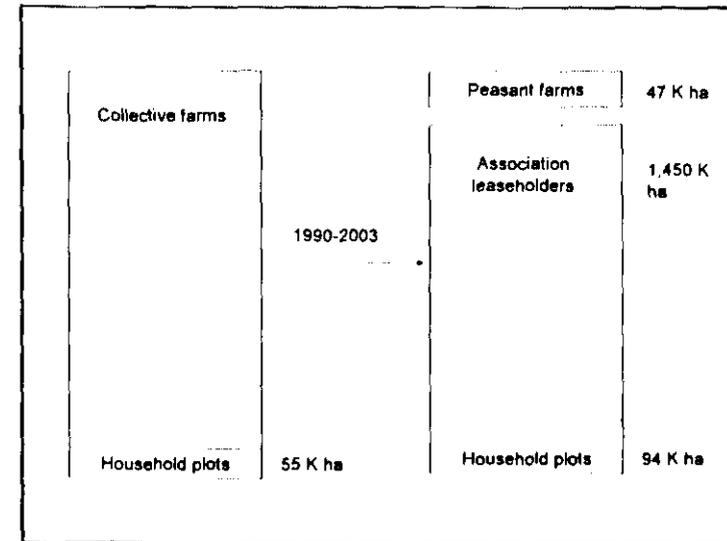
## Farm Restructuring in Turkmenistan: Outcomes and Constraints

Zvi Lerman  
*The Hebrew University, Rehovot, Israel*

Ivan Stanchin  
*National Institute of Statistics, Ashgabat, Turkmenistan*

## Turkmenistan in perspective

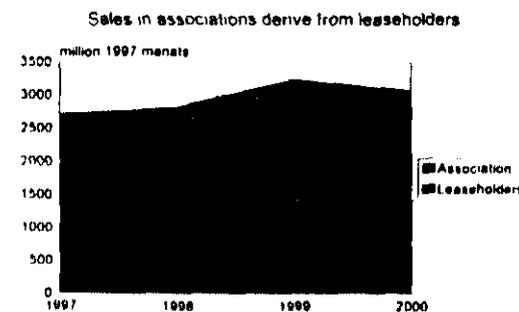
Area	50 million ha 40 million ag land	4th largest in FSU
Population	4 million	Like Arm, Gru, Az, Baltics
Rural population	55%	33% in FSU
Arable land	4% of ag land	40% in FSU
Rural density	0.6 ha/person	2.3 ha in FSU



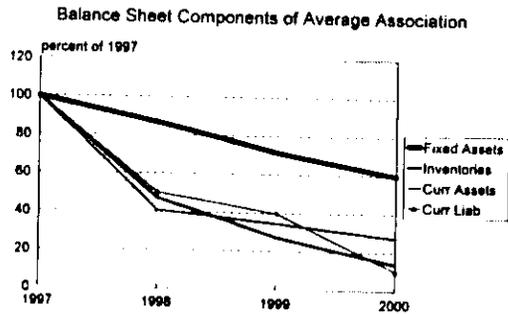
## Structure of farm sector

	Number	Land, ha	Ave size
Associations	592	33,000,000 (incl. pastures)	
Leaseholders	357,000	1,500,000 (arable)	5.6 ha
Peasant farms	5,200	81,000	20 ha
Household plots	616,000	133,000	0.2 ha

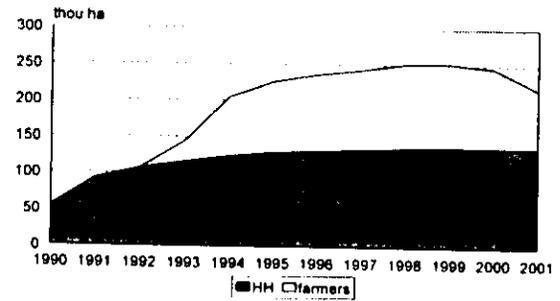
## Associations have become just a shell for leaseholders...



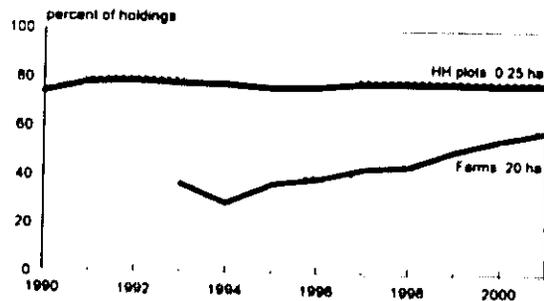
## ... and their asset base is steadily shrinking



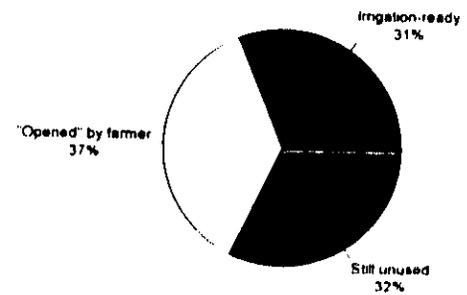
## Growth of Individual Sector Ag Land

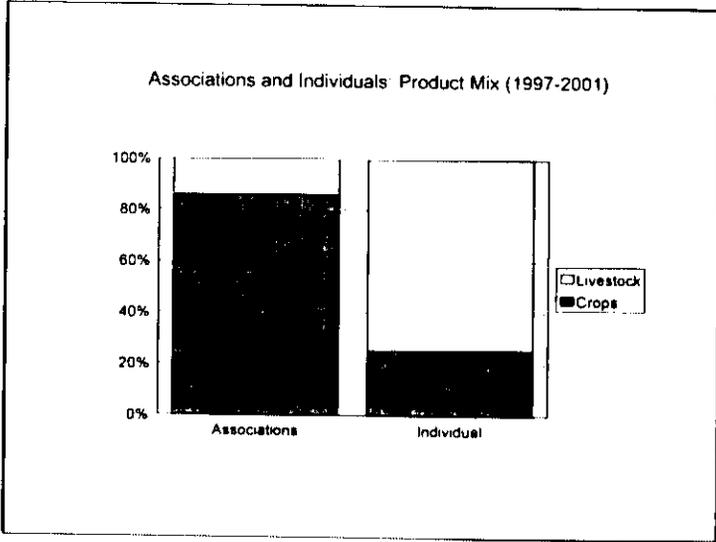
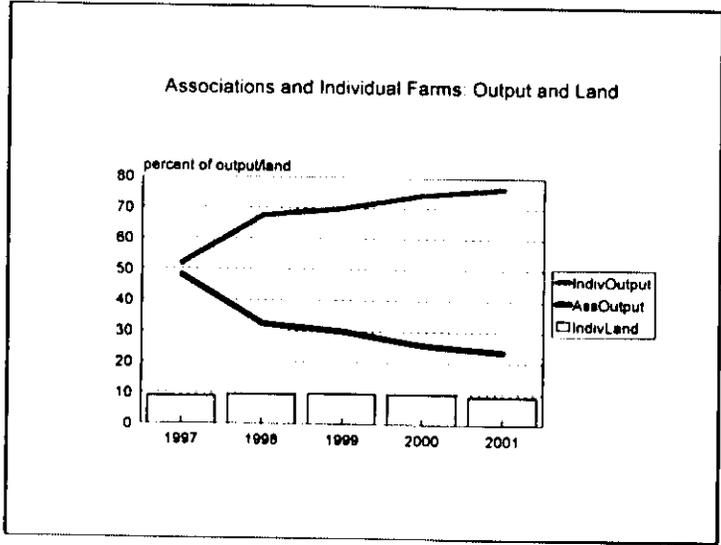


## Share of Cultivable Land in Individual Sector



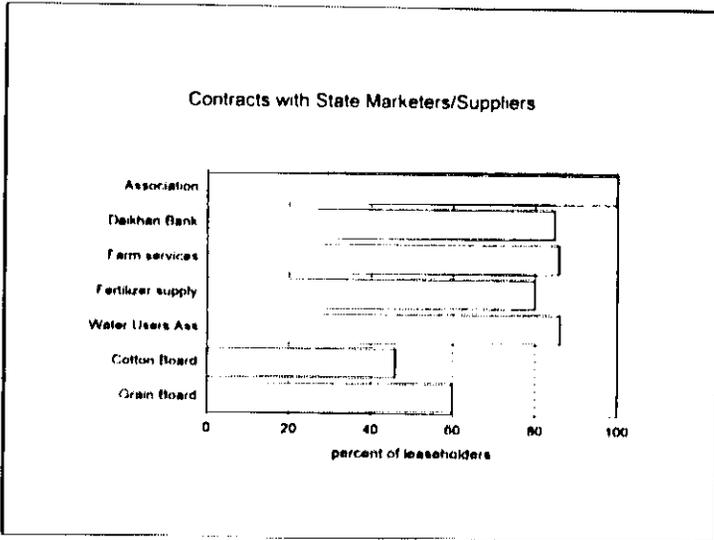
## Structure of Farmers' Land in 2001 Survey





### Specialization at farm level

	Leaseholders	Peasant farms
Cotton	36%	8%
Wheat	50%	43%
Cotton+wheat	9%	15%
Other	5%	34% (lvstk!)



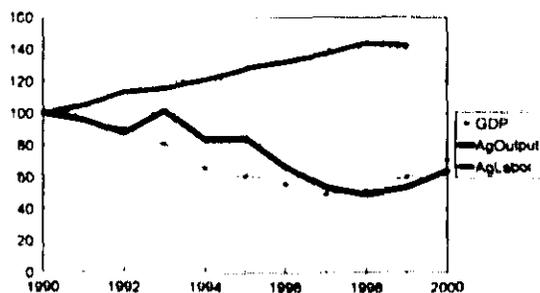
### Sale channels (percent of respondents)

	Leaseholders		Peasant farms
State	88%	Cotton	100% state
Association	9%	Wheat	71% state 21% market
Market	3%	Vegetables	80%-100% market
		Meat, milk	80%-90% market

### Leaseholders are happy with the new arrangements...

	Better	No change	Worse
Motivation to work	85%	11%	4%
Standard of living	72%	23%	5%
Future prospects	90%	6%	4%

### But is agriculture doing any better?



### Outcomes:

- Transition to different individual forms
- Signs of recovery in Ag Output and GDP
- Ag labor is growing

### Constraints:

- State orders (cotton, wheat)
- Subsidies (50% back) & low product prices
- Monopoly of state channels
- Poor land to private operators

# New Contract Arrangements in Turkmen Agriculture: Impacts on Productivity and Rural Incomes

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Paper prepared for a panel on *Changing Land and Water Use Patterns in Central Asia*,  
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2003

## NEW CONTRACT ARRANGEMENTS IN TURKMEN AGRICULTURE: IMPACTS ON PRODUCTIVITY AND RURAL INCOMES\*

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Turkmenistan*

Turkmenistan is a huge country of 50 million hectares – the fourth largest by area in the former Soviet Union (FSU) after Russia, Kazakhstan, and Ukraine. Yet it has a small population of about 5 million people, which puts it in one group with the FSU midgets – Armenia, Georgia, Azerbaijan, the Baltic republics. More than half the population (55%) lives in rural areas, compared to one-third in FSU, but only 4% of the country's agricultural land (1.6 million hectares) is cultivable, compared to 40% in FSU. The remaining 96% of agricultural land in Turkmenistan is desert pastures – 38 million hectares fit only for flocks of karakul sheep and camels, not for human beings. Thus, despite the huge expanses and the small number of people, the effective population density in Turkmenistan is very high: there is only 0.6 hectares of arable land per rural resident compared to 2.3 hectares in FSU.

Prior to 1991, agriculture in Turkmenistan was organized according to the standard Soviet model: some 600 large collective and state farms controlled the bulk of agricultural land while the rural population cultivated in its spare time tens of thousands of small household plots on 55,000 hectares, or about 3% of irrigated land. The structure of the farm sector has changed dramatically since then as independent Turkmenistan began to implement various agrarian reforms consistent with its interpretation of a market-oriented economy.

### *Changing Farm Structure*

The main change in our context can be characterized as a shift from collective farming to a more individualized agriculture. The first step (1990-92) involved distribution of irrigated land to rural families, which more than doubled the total size of the household-plot sector to 133,000 hectares. The second step (1993-96) involved a national program for allocation of land to independent private farmers who were allowed to engage in commercial agriculture outside collectivist frameworks. Today there are more than 5,000 such private farms in Turkmenistan (the numbers are very fuzzy) operating on 81,000 hectares. The third, and perhaps the most daring and radical step (1996-97) involved the transformation of former collective and state farms into associations of leaseholders. So-called "peasant associations" (*daikhan berleshik*) were summarily organized by presidential decree in place of the traditional collective and state farms, and each association was instructed to parcel out its large fields to individual leaseholders (typically heads of families).

We view the creation of leaseholder-based associations as the most radical step of the land reform program because of its scope. The reforms aimed at household plots and private farms, however important, were marginal by the amount of land that they encompassed. The transition to leasehold contracts, on the other hand, involved more than 350,000 rural family units and 1.5 million hectares of arable land, i.e., practically the entire rural population and

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90% of arable land in Turkmenistan. The current structure of the farm sector in Turkmenistan is presented schematically in Table 1.

**Table 1. Structure of the Farm Sector in Turkmenistan: 2002**

	Number	Land, ha	Average size, ha
Associations	592	33,000,000 (incl. pastures)	
Leaseholders	357,000	1,500,000 (arable)	5.6
Peasant farms	5,200	81,000	20
Household plots	616,000	133,000	0.2

*The Role of Peasant Associations and Institutional Arrangements for Leaseholders*

Initially, when peasant associations were created by fiat in 1995, they had the potential for becoming yet another example of what is generally known in FSU as a “change of the sign on the door”: a formal organizational transformation without any substantive internal change. Yet the situation in Turkmenistan seems to have developed toward a genuine structural change since 1996-97. Although there are still 600 associations and they still legally control most of the agricultural land resources, they have become mere organizational shells, or umbrellas, for the farming operations of individual leaseholders, without significant commercial activity of their own. As of 1997, associations have virtually no “collective” sales: all sales reported through associations derive from their leaseholders. The associations have lost much of their fixed asset base (machinery, equipment, livestock), while inventories, receivables, and payables—standard signs of commercial activity—have shrunk almost to zero (Table 2).

**Table 2. Characterization of Associations as a Shell for Leaseholders**

	2000
Percentage of sales generated by the association, % of total reported sales	4.6
Fixed assets, change since 1997 in percent	-40
Inventories, change since 1997 in percent	-86
Accounts receivable, change since 1997 in percent	-72
Accounts payable and loans, change since 1997 in percent	-90

Source: Aggregate financial statements of farm associations 1997-2000, MinAg.

What is the role of the associations today? First, they are the “guardians” or “administrators” of state-owned agricultural land that is distributed to leaseholders for cultivation. All leaseholders interviewed in a large farm-level survey in 2002 report that they have a land-lease contract with the association. Second, they are the municipal authority responsible for maintaining rural infrastructure in the villages—and they receive a certain payment from the leaseholders (in percent of production revenue) for these services. Third, and most problematic of all, they are the conduit for transmitting state orders to the leaseholders and enforcing compliance.

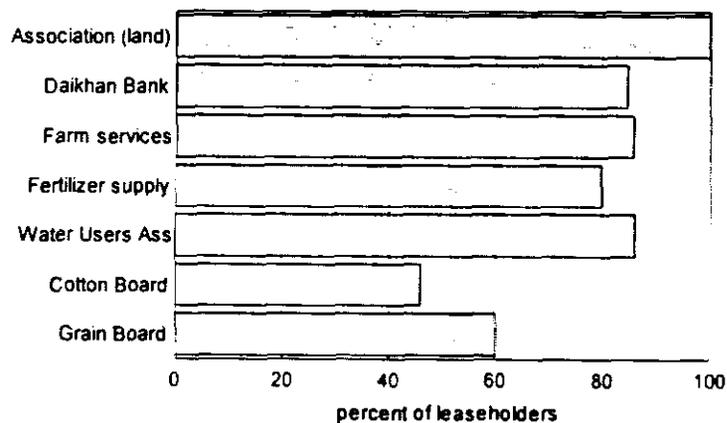
The continuing existence of state orders in Turkmenistan is a legacy of the Soviet centrally planned system. Turkmenistan has liberalized much of its agricultural production and food trade, but the main strategic commodities—cotton and wheat (as well as the much less important rice)—remain subject to state orders. As in the past, production targets for wheat and cotton are assigned to large farming units—peasant associations in this case; and the association manager divides the overall quantities among the leaseholders so that the full target is met (or exceeded). The associations do not sell this wheat and cotton for their leaseholders, as a marketing cooperative would normally do in the West: the sale contract is

directly between the leaseholder and the state marketing organization, which sends trucks to collect the harvested crop and sometimes even tractors and combines to help with harvesting. The associations do not act as supply cooperatives either: leaseholders get all the inputs they need from state suppliers on the basis of individual contracts signed according to production targets.

Finally, since the associations are neither marketers nor input suppliers, they cannot act as credit cooperatives for their leaseholders. All financial transactions in this system are handled by a state-owned agricultural bank – Daikhan Bank – which has a branch in every association, serving all the local leaseholders. The system is organized on the basis of “passbooks”, so that very little cash changes hands. Each leaseholder’s production quota is recorded in the “passbook”. The “passbook” shows the total credit for revenue that the leaseholder will eventually receive for deliveries of wheat and cotton and the total debit for inputs that he is entitled to get from the state. The revenue is calculated on the basis of fixed state prices, which are adjusted every year but are always far below the world market prices. The cost of inputs is also based on fixed state prices net of a hefty 50% subsidy for all inputs used in the production of state orders. The input debits, plus statutory management charges that go to the association, are offset against the revenue and the leaseholder keeps only the “profit”.

This highly bureaucratized system applies only to state orders, i.e., wheat, cotton, and rice, but it is designed in such a way that the leaseholder must deliver the entire output to state marketers: otherwise there will be no credit entry in the bank account to offset the debits for inputs. Commodities not subject to state orders, such as vegetables, milk, or eggs, are generally produced under different institutional arrangements on the family’s household plot and are sold in the nearby market or through occasional private traders: there are no state marketers to deal with these commodities and the association is not geared to provide cooperative marketing services.

Fig. 1. Contracts with State Marketers/Suppliers



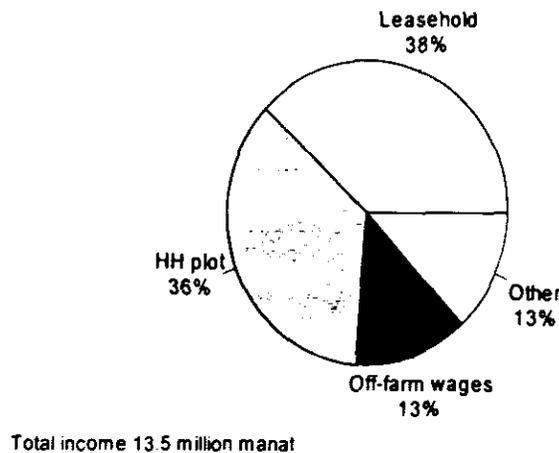
The complex system of relationships between leaseholders and various state organizations is reflected in Figure 1, which shows the percent of respondents in the 2002 survey who signed contracts with input suppliers, product marketers, and the bank. Over 80% of respondents are bound to the state by credit and input supply arrangements. The percentages for marketing

contracts are deceptively low: leaseholders generally specialize either in grain or in cotton. The combined frequency of contracts with the Cotton Board and the Grain Board is accordingly around 100% (actually slightly more than 100% reflecting the existence of some mixed grain/cotton farming): all leaseholders are bound by marketing agreements to the state, with no independent commercial activity in the two strategic commodities.

*The Role of the Household Plot*

Leaseholders operate in a two-tier farming system. In one tier, they have 5-6 hectares of irrigated land leased from the peasant associations, where they grow mainly wheat or cotton for delivery to the state. In the second tier, they have a small household plot of about 0.25 hectares on which they grow vegetables and keep some private livestock. The output from the household is in part consumed by the family and in part sold in the open market, without any intervention from the state. The income of most rural families thus includes cash income from the leasehold operation plus cash and in-kind income from the household plot. In the 2002 survey, these two components were evenly balanced and jointly accounted for 75% of family income (Figure 2). The remaining 30% represent cash income from off-farm salaries of family members working outside the household, pensions, social transfers, etc. The household plot is thus a very important source of income for rural families, accounting for more than one-third of total income in value of own farm products consumed by the family and in cash from product sales.

Fig. 2. Structure of Leaseholder Family Income

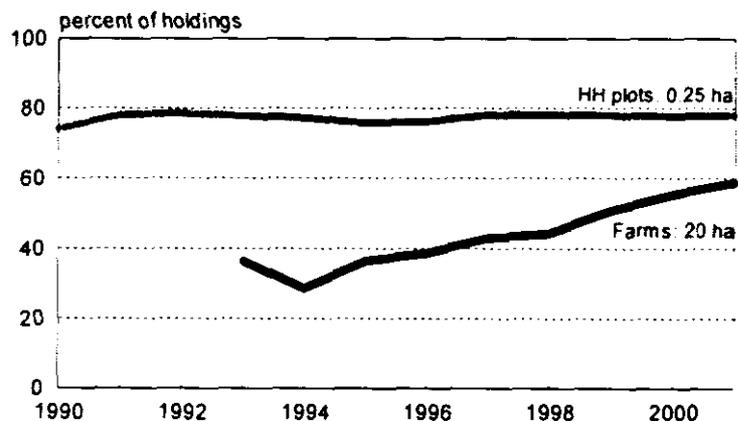


*Private Farmers and Their Land*

In addition to leaseholders and their household plots, Turkmen agriculture has another relatively new component that began to emerge only in 1993. These are independent private or peasant farms that operate outside associations on land grants received directly from the state – not in the form of a lease from the association. The land in these private farms increased from zero in 1992 to about 100,000 hectares in 2001 and is close to catching up with the total land in household plots (130,000 hectares). There are about 5,000 private farmers in Turkmenistan, so that an average private farm is 20 hectares – much larger than the average leasehold in associations (5.6 hectares).

Yet there is a serious problem with the quality of land in private farms. The declared government policy is to give private farms unirrigated, uncultivable land and thus force them to reclaim desert land at their own expense. In effect, the government has relinquished the responsibility for what was traditionally regarded as a public good in the Soviet era and today relies on private individuals to invest in land reclamation. The poor land quality in private farms is clearly illustrated by Figure 3, which shows that in 1993-95 cultivable land was only 30%-40% of the holdings – compared to 80% in household plots. Yet it seems that the private farmers are doing exactly what the government intended them to do: they are actively reclaiming desert land on their farms and the share of cultivable land has steadily increased from the initial 30%-40% to 60% today. The picture that emerges from the 2001 survey of private farms is consistent with these national figures: among the respondent farms, 31% of the land was irrigation-ready from the start, another 37% was reclaimed by the farmers during their new tenure, and 32% is still unused and remains to be “opened” for cultivation in the future.

Fig. 3. Share of Cultivable Land in Individual Sector



#### *A Digression on Private Land Ownership in Turkmenistan*

Leaseholders receive land in use rights from the state through the intermediation of the local peasant association. The lease term is usually 5-10 years (this follows from the 2002 survey), but the production targets are set each year. The lease is nontransferable: if a family cannot farm, the leasehold reverts to the association for reassignment. Private farmers receive land directly from the state. Initially, the land is granted in use rights, but once the farmer has proved his willingness and ability to farm successfully (within two-three years), the land is transferred into “private ownership” and the happy farmer receives a special “land ownership certificate” from the authorities (sometimes directly from the hands of the President).

We advisedly put “private ownership” in quotation marks, because the notion of private ownership in Turkmenistan is very different from the accepted notion in market economies. On paper, the 1992 constitution of independent Turkmenistan recognizes private land ownership. Yet the Land Code, which is the permanent law that interprets the constitution on land matters, elaborates, “Citizens of Turkmenistan have the right to receive *in private*

*ownership with lifetime inheritable possession* land for peasant farms and subsidiary household farms ... Those wishing to establish a peasant farm will lease land or receive land *in private ownership with the right of lifetime inheritable possession...* Thus, private ownership is forcefully equated with lifetime inheritable possession – a traditional Soviet form of land tenure. “Privately owned” land in Turkmenistan is non-transferable: it may not be sold, given as a gift, or exchanged; only short-term leasing is allowed under very special conditions. In practical terms, there is no difference between private farmers who get land in use rights and those who receive a “land ownership certificate” from the state. They have an asset that they can use but not dispose of in any way.

### *Some Comparisons of Leaseholders and Private Farmers*

The most striking difference between leaseholders and private farmers is not in farm size (5-6 hectares in leaseholds, 20 hectares in private farms): it is in the fact that leaseholders are subject to state orders while private farmers are allowed to grow whatever they wish. This is clearly reflected in the specialization of farms in the two groups (Table 3, based on 2001-2002 surveys): leaseholders produce either cotton or wheat, with less than 10% of farms producing both cotton and wheat and only 5% diversifying into other commodities. Among private farmers, on the other hand, 15% produce both cotton and wheat while fully 34% produce commodities other than cotton and wheat. These other commodities are largely livestock products, which are very seldom reported by leaseholders. Nationally, the product mix of leaseholders in associations is 85% crops and only 15% livestock. Livestock production is concentrated mainly in the individual sector – private farms and household plots, where the product mix is diametrically opposite: 25% crops and 75% livestock.

**Table 3. Specialization at the Farm Level (percent of respondents)**

	Leaseholders	Private farms
Cotton only	36%	8%
Wheat only	50%	43%
Cotton+wheat	9%	15%
Other	5%	34% (livestock!)

**Table 4. Sale Channels for Farm Products: Leaseholders and Private Farmers (percent of respondents)**

Channel	Leaseholders	Commodity	Channel	Private farmers
State	88	Cotton	State	100
Association	9	Wheat	State	71
Market	3		Market	21
		Vegetables	Market	80-100
		Meat, milk	Market	80-90

The difference in institutional arrangements for leaseholders and private farmers is also reflected in different access to marketing channels (Table 4). Leaseholders sell primarily to the state, which is consistent with their obligation to deliver wheat and cotton under state orders. Private farmers use different channels for different products. Vegetables, meat, and milk – the products for which no state procurement exists – are sold in the open market. Cotton is sold to the state: in principle, private farmers have no obligation to sell to the state, but there are apparently no alternative sale channels for cotton – direct exports are prohibited – and they are obliged to sell to the state cotton board. Wheat is again in a different category: the state takes 70% of the harvest, but a respectable 20% is sold through alternative channels. There is a very clear lesson behind these numbers: if producers are given an opportunity to

choose between marketing channels, they will indeed exercise their right of choice, presumably optimizing sales income.

Despite the state orders and the constraints on individual choice, leaseholders appear to be quite happy with the new arrangements (Table 5; unfortunately no such data are available for private farmers). Most of the respondents in the 2002 survey report an increase in their motivation to work (compared with the situation in the former collective) and an improvement in their standard of living. Practically everybody is optimistic about the future prospects under the new system. At least in terms of popular attitude the agricultural reforms are a success.

**Table 5. Leaseholders' evaluation of the situation under the new leasehold arrangements compared to the collective past (percent of respondents in 2002 survey)**

	Better than before the reforms	No change	Worse than before the reforms
Motivation to work	85%	11%	4%
Standard of living	72%	23%	5%
Future prospects	90%	6%	4%

### *Outcomes of Agricultural Reform*

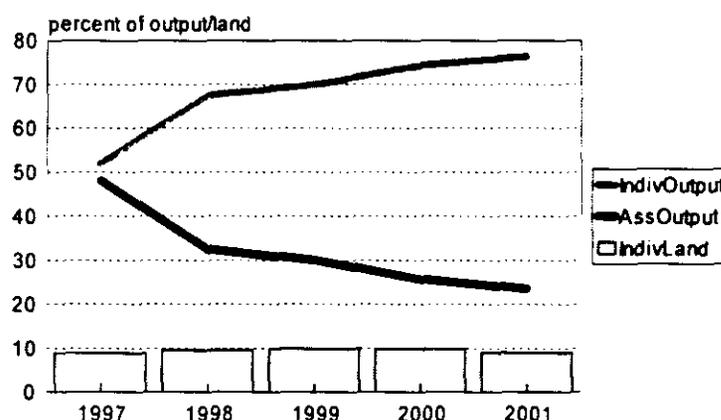
Proper assessment of the impacts of agricultural reforms requires detailed comparisons of the performance of the three institutionally different components of Turkmen agriculture: leasehold farms, household plots, and private farms. Unfortunately, neither national statistics nor our surveys provide the full information necessary for this kind of analysis. National statistical data only enable us to make a crude performance comparison between the "association sector" (i.e., leasehold farms) and the "individual sector" (mainly household plots, but also private farms). The results of this comparison are presented in Figure 4, where two features are worth noting. First the share of the individual sector in agricultural output increases over time, while the share of the associations decreases despite the transition to leasehold arrangements after 1996. In 1997, the first year of the main farm-structure reforms, each sector accounted for one-half of gross agricultural output. Five years later, in 2001, the individual sector produces 75% of agricultural output, while the association sector is down to 25%.

Another noteworthy feature is the ratio of output to land in the two sectors. The individual sector (household plots and private farms combined) control about 10% of cultivable land, on which they produce 75% of total output. Association leaseholds account for 90% of cultivable land, and yet they produce only 25% of total output. The relative productivity of the individual sector is thus 27 times higher than in the association sector.

Neither feature is unique to Turkmenistan. Similar trends are consistently observed in all former Soviet republics, where in line with accepted theoretical considerations we generally attribute the performance differences to different incentives for individual farmers and workers of former collectives. Yet the institutional setting in Turkmenistan is unique in that the former collectives have shifted to individual leasehold arrangements. As a result, leaseholders presumably face incentives that are much closer to the incentives of individual producers than the incentives of workers in former collective farms in the rest of the FSU. We would have expected the leaseholders to achieve productivity levels that are much closer

to the individual sector and thus give a strong boost to Turkmen agriculture. This obviously has not happened so far.

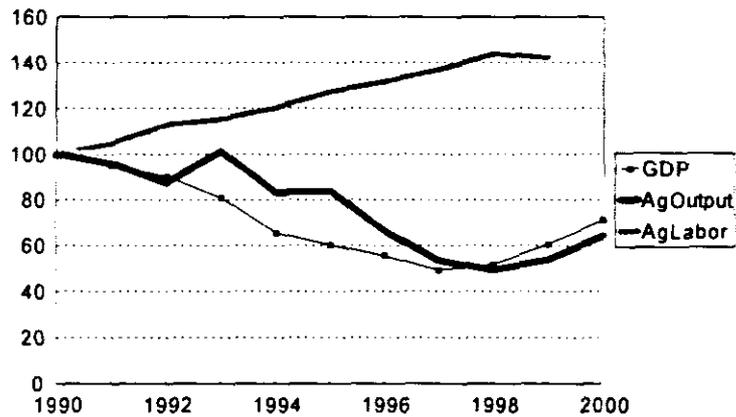
Fig. 4. Associations and Individual Farms: Output and Land



The only possible explanation, in our view, lies in the sharp differences in the institutional production and marketing arrangements between the individual sector and the leasehold sector. Individuals are free to decide what to produce and how to sell, and individual farming is flourishing thanks to private initiative. Leaseholders are strictly bound by state orders on the relatively large areas that they receive from the association, and there is not much room for private initiative. It is particularly important to note that the second tier of leasehold farming – the household plots – is not subject to these restrictions and household plot production seems to be flourishing (as part of the individual sector statistics) while the association sector is struggling. We hope that future work will enable us to disentangle the performance of leaseholds and household plots in the same rural families participating in the 2002 survey.

Switching to a still broader national view, we see in Figure 5 that both agricultural output and GDP declined sharply after 1990. Some signs of recovery appeared in 1997-98 – coincidentally with the introduction of significant reforms in agriculture. We would like to hope that the incipient recovery is indeed linked with the impact of agricultural reforms, but only the future will show if this is so. Figure 5 incidentally reveals another important feature of rural Turkmenistan: the labor employed in agriculture is steadily increasing over time, both because of high natural increase of the rural population and because of lack of alternative employment opportunities outside agriculture. The combined effect of increasing labor and decreasing agricultural output of course has had a devastating effect on overall productivity of Turkmen agriculture.

Fig. 5. GDP, Agricultural Output, and Agricultural Labor 1990-2000



### *Conclusion*

Turkmenistan has implemented significant reforms in agriculture, increasing the size of the household plot sector, enabling the emergence of independent private farms, and most importantly individualizing to a certain extent the production arrangements in former collective farms through the introduction of leasehold contracts. Yet the policies underlying these reforms can only be characterized as half-hearted: state orders are retained for the main cash commodities (cotton and wheat), the producers are generally bound to monopolistic state marketers and input suppliers, and the independent private farmers who are relatively free from these constraints receive land of very poor quality that requires major investment in reclamation. It is not surprising that these constraints have a negative impact on the development of Turkmen agriculture and the performance of the new leasehold sector seems to be falling far short of its potential.

# "Altyn Asyryň ykdysadyýeti", №3(34)

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# FUNDAMENTALS OF MARKET ECONOMY THEORY

## *Political Economy*

In the history of humanity the XX-th century was the most intensive century by the rates of progress. The progress was especially rapid in the second half of the century. Within the life of one generation the man managed to overcome the sound barrier, the Earth gravity, arrived in the Moon, in the depths of air space and the world ocean. invented the intensive systems of information provision and communication managed to create live organisms in «test tubes». The achievements of the civilized world were based on unprecedented economic growth that in its turn provided action of the feedback and impact on scientific and technological advancement. The aggregation of the created material goods was rapidly growing. By appreciation of Mr. A. Dinkevich,<sup>1</sup> the world GDP was in the XX century 19 fold higher than in the XIX century. In the meantime, the growth rate of material goods exceeded the growth of population. The population increased 6,6 fold. As a result, the quality of life improved

largely. The progressive socio-economic development was accompanied by accumulation of knowledge that resultantly embedded in realization of unlimited human skills and general efforts of the society to the creation of wealth. Undoubtedly, the ideas realized to the material production were the central link of the public life evolutionary development. This realization was mostly effective in conditions of market economy having big advantage of functioning.

The rapid economic growth and complication of evolutionary market system found reflection in clarifying, deepening and developing of the theory of market. There were elaborated the models of the development of new global economy in which the values have been reappraised and the role of human being has been scientifically understood, while the investigations are oriented on personal factor,

development of motivation and creative skills. The development was considered not only as the accretion of production capacities and increase of rates, and mainly as the investments to the capital. To what extent could the world processes of economic achievements be possible if there were no classic doctrines of economists whose teachings made up the underlying contribution to the economic theory? The answer cannot be unambiguous. However, as one of the authoritative economists of the XX century John Meinard Keynes (1883-1946) noted, the «*ideas of economists and political thinkers - both right and mistaken ones - are much more meaningful than it is accepted to consider. Indeed, they govern the world. The practitioners considering themselves free of intellectual influences, are usually the slaves of some economist of the past*»<sup>2</sup>. The political leaders of all countries usually

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1. A. Dinkevich «Appropriateness of Economic Development», *Economist*, 2001, N11 p. 75

2. J. Keynes «General theory of employment, interest and money» (translation from English), M. 1978, p. 458

invite economists to implement the tasks of reforming, structural adjusting or developing of productive forces, to define the strategic purposes and elaborate programs. It concerns the leaders of the USA, Russia, Turkmenistan and other countries. However, the assistance of economist is needed not only on higher levels of public activity, but also on the levels of industry, an enterprise and in common life, the effectiveness of production, the living standards of workers and vital activity as a whole depend on the taken decision.

From antique times the economics served for the rational housekeeping, therefore, on that stage the economic theory developed within the single science. With the evolution of productive forces and public relations the economic knowledges of the society were deepening and extending. The necessity appeared to single out the economics as the separate subject that was applied already not only within the scales of housekeeping, but also on the level of the state. The economic theory gets independent appearance in the papers of scholasts. Joseph Schumpeter (1883-1950) in his paper «History of economic analysis» highly appreciates the role of scholasts in formation of economic theory and

the economics. He writes that «... pure economic theory was their creation. Just within their systems of moral theology and law the economic science reached the defining independent existence, just the scholasts were closer than any other group to becoming the «founders» of scientific economics»<sup>1</sup>.

If the scholasts in their theological teachings considered the economics as the part of ethics, the representatives of the school of mercantilism Antuan Montchrestien (1575-1621) in his book «Treatise of political economy» (Traite of economic politique) introduced the term «political economy» (1615). A. Montchrestien considered the merchandise to be the source of well-being and highly appreciated the work of a merchant.

In its historical development the political economy as the science, theory and practice had several stages conditioned by the evolutionary or revolutionary development and arrangement of production relations, level of the development of productive forces characteristic to the separate country for the definite method of production and to civilized society as a whole. «The whole history of theoretical economy», Y.A. Pevzner writes, - «is the conflict of different approaches to the rules of mea-

suring the value of goods and services»<sup>2</sup>.

The history of economic science has in its arsenal the economic theories of many scientists whose views were realized into the life and played the huge role in economic development and society organization. It is the unreal task to consider the whole complex of elaborated economic teachings even within the framework of independent studying. Nevertheless, in order to understand better the character of modern economic processes, especially in transition economies it is reasonable to pay attention to the foundations of economic theories and teachings of the most famous economic schools.

#### *English classical political economy*

The formation of economic theory is connected with the English classical political economy. Within the period of its prosperity the political economy became the science. It is considered that economists William Petty (1623-1687), Adam Smith (1723-1790), David Ricardo (1772-1823), Pierre Boisgullebert (1646-1714), F. Quesnaz (1694-1774), Ann Rober Jacques Turgot (1727-1781) in their papers founded and developed the classical political economy, described the process of bourgeoisie society

1 I. Schumpeter «History of economic analysis» in the book «Sources: issues on history of national economy and economic thought», Economics, ed. 2, M., 1990

2 S. V. Braginsky, Y.A. Pevzner «Political economy: debatable problems, ways of reevaluation», Moscow, «Mysl», 1991, p.16

origin, and classical political economy received the highest prosperity within this period. The political economy of this period laid down the foundations of the cost theory. Sir W. Petty is the father of the school of classical political economy.

Unlike A. Montchrestien, W. Petty considered that the production sphere was the source of welfare. He was the first economist who gave the birth to the labour theory of cost\*, gave the definition of differential rent and considered that the society developed under economic laws. The words of W. Petty: «Labour is the father of wealth, the land is its mother» are cited in many economic textbooks.

The main papers of W. Petty are «Treatise on taxes and contributions» (1662), «The political anatomy of Ireland» (1672), «Political arithmetic» (1683); «Quantulumennique concerning money» (1682).

One and a half centuries have passed after appearance of the term «political economy» and then another century was required after which the doctrines of W. Petty have got the further development. The new independent science appeared being formed thanks to the teachings of renowned English economist and scientist

A. Smith. In his papers «Theory of moral feelings» (1750), «Studying on nature and reasons of the wealth of peoples» (1776) A. Smith generalized the one century period of the development of English classical school of political economy, developed and enriched many ideas of previous economists. The doctrine of A. Smith is based on the initial methodological premise that economic laws determine the development of the society and act similarly to the laws of nature. The labour division is the basis for the creation of the wealth of peoples and might of the state. It is beneficial for a man, for the society and the state to specialize their economic activity on a certain marketable product the production of which would be perfect after some time.

The contribution of A. Smith to economic theory is invaluable. It can be divided conditionally to five parts:

- theory of the cost and income distribution;
- capital accumulation;
- essay of Western Europe economic history;
- critics of mercantilism and giving opinion on economic policy;
- state finance.

A. Smith considered the egoistic motives and person-

al interest to be the basic principles of the human beings interest in labour as they have the «mirror» effect of influence and increase the wealth of the nation.

The man offers his services because he is striving to get benefit. We expect to get our meals «not because of benevolence of butcher, brewer or baker, but because of observance by them of their own interests.

*We apply not to their humanity, but to their egoism, we tell them not about our needs but about their benefits».*

This conception of A. Smith is widely used in the theory of free market economy. In his theory of the public product reproduction A. Smith stated that the cost of the product is equal to the total incomes including wages, profit and rent. A. Smith was for the limited interference of the state to the economy and believed that the «natural harmony» appears in the economy spontaneously, therefore, the state must not interfere in production, trade, distribution. He considered that the «invisible hand» of market economy creates and maintains the balanced economic activity.

The English economist D. Ricardo successively continued the labour theory of

\* Y. A. Pevzner notes that the word «Wert» in the papers of Russian scientists of late XIX was translated as «value», and «Wertgesetz» as the «law of value». Upon 10-12 years after October revolution the word «cost» was applied, while «value» and «law of value» were not mentioned more.!

1 S. V. Bragin'sky, Y.A. Pevzner «Political economy: debatable problems, ways of renevation», Moscow, «Mysl», 1991, p.29

2 Anthology of economic classics, volume 1, p.91

A. Smith. He worked up the theoretical foundations of English classical political economics. It is considered that the scientific activity of D. Ricardo is the peak of English classical political economy, its final stage. D. Ricardo considered labour as the main source of the public wealth. However, his theory of labour cost differs from A. Smith's theory when he states that labour cost not involves but is divided to wages, profit and rent. His main paper «Elementary political economy and taxation» published in 1817 consists of three principal parts:

- grounds of economic theory (cost and income);
- theory and practice of taxation;

- views on a number of particular problems and analysis of conceptions developed earlier by A. Smith, Thomas Robert Malthus (1766-1834), Jean Batiste Say (1767-1832).

D. Ricardo considered political economy as the science on quantitative and qualitative economic relations of people belonging to certain groups of population. By his opinion, examination of the laws of national income distribution through the wages is the task of political economy. In the theory of money he revealed the mechanism of money circulation interconnected with its quantitative component. For the purposes of the national economy development D. Ricardo theoretically justified the propor-

tion of gold standard in combination with banknotes circulation. D. Ricardo contributed to the economic theory of foreign trade, world market and foreign exchange mechanism. D. Ricardo considered that the capitalist received profit for account of unpaid labour of a worker. He stated the theory of public product distribution in consideration of antagonistic class interests of different groups of population and on this basis made up the law of reverse proportion dependence between wage of workers and profit of capitalists.

D. Ricardo was the defender of economic liberalism and believed that the optimal functioning is reached without state interference. The views of D. Ricardo concerning the public debt are very interesting. He believed that not only the service of debt and debt repayment make up the burden. The public debt is especially burdensome in situation of financing shortage when the private savings reduce and capital flows out of the country.

Up to the middle of the XIX century the English political economy dominated in economic theory, and political economy was considered as the science studying the regularities of functioning and development of economic relations between people occurring in the process of production, distribution, exchange and application of material good.

### *Marxist political economy*

Commencing from mid-XIX century, in political economy the new stage appeared under the name «marxist» in relation to the economic theoretical studies undertaken by Karl Marx and Fridrikh Engels.

In 1844 K. Marx and F. Engels attempted for the first time to formulate the main provision of their economic theory. K. Marx accepted the methodological reference of A. Smith and D. Ricardo on labor cost of commodity, the consumer and exchange cost of this commodity as the starting point of examination. Initially, the political economy of K. Marx and F. Engels stated only on production relations in conditions of capitalistic way of production and it was the narrow spectrum of this theory. Later, it became the class science and got the name of marxist political economy. Marxism was not the only theory in the second half of the XIX century. We will touch this issue further in this text.

However, the theory of K. Marx acquired many successors because economic and also the sociophylosophical ideas were reflected in it. The main research paper of K. Marx «Kapital» consists of 4 volumes and it is the basic source of marxist theory. «*The capitalistic production and corresponding to it production and exchange re-*

*lations are the subject of my examination in this paper»<sup>1</sup>*

- K. Marx wrote. The first volume was issued in 1885, during the life of K. Marx. His friend and companion F. Engels issued the rest volumes. In «Kapital» K. Marx examines the economic structure of the society, the law of its development, proves inevitability of the replacement of capitalism by the higher social formation.

The English classical political economy studies the processes of economic development without class approach and considers the transition from cost to capital as a simple quantitative movement. In «Kapital» this process is considered as the qualitative upswing and the class antagonism becomes the red thread of the whole research paper and it is its essence.

K. Marx begins his examination from the commodity analysis as it is, according to his statement, the economic cell of the society. By explaining the factors of the commodity quality - cost and consumer cost, K. Marx makes a conclusion on the dual character of the labour contributed to the commodity. This finding, on opinion of K. Marx, is the basis for understanding of all the processes in economic science. While studying the nature of money, K. Marx, in contrast to A. Smith, finds out that money is not technical item, but it is the commod-

ity of overall equivalent character.

Having completed the examination of capitalistic way of production K. Marx makes a conclusion on inevitable cumulation of contradictions and crises in the society that lead to the class struggle of proletarians and bourgeois and only the socialistic revolution may settle them. This is how K. Marx describes this inevitability: «*Monopoly of capital becomes the chain of that way of production that has grown at its time and under it. Centralization of the means of production and socialization of labor reach the point when they become incompatible with their capitalistic cover. It bursts out. The time of capitalistic private ownership comes. Expropriators are expropriated*»<sup>2</sup>.

The political economy in theoretical research works of K. Marx and F. Engels is not considered as the separate subject of science, although the economic theory of surplus value was the discovery. In mutual connection with materialistic development of the history this cost theory is laid down to the basis of class approach and switched to the sphere of public life. K. Marx considered also that in the process of production the worker creates larger cost sum that he gets for his labour. The worker gets amount that will serve for reproduction of his labour force, while his unpaid labour serves for

creation and augmentation of capital. In capitalistic society it leads to occurrence of contradictions and protests for rehabilitation of justice.

In the marxist understanding, in a broad sense of the word the political economy should be considered together with philosophy and ideology, it is philosophical science that can not be considered as a sum of private studyings of political economies of the certain periods of public productions because the private political economies do not exist. It means that political economy is the part of the marxist comprehensive world science theory able to give answers to all the questions of economic development and also questions concerning the development of nature, society, thought. Due to interpretations of this theory all the processes of public development happen in accordance with laws of objective character being beyond the people's consciousness and will.

The fundamental significance of economic theory, like in whole marxist political economy and all marxist theory was that the structure of society is the basis above which there is the superstructure. If the basis and superstructure are open political categories, the interrelations of productive forces and production relations are of implicit character.

1. K. Marx and F. Engels, 2nd Edition of Collected Works, volume 23, p.6

2. K. Marx and F. Engels, 2nd Edition of Collected Works, volume 23, p.772-773

*Political economy of socialism*

Political economy of socialism is considered as the component of integral economics in the structure of marxist political economy. V. Lenin developed further the grounds of the marxist political economy in consideration of inequilibrium of the development of capitalistic society. On the basis of economic theory of K. Marx and F. Engels in the beginning of XX century there were laid the grounds of political economy of socialism, but in 1920, in particular conditions the economic theory was developed. V. Lenin said the political economy was the science of political party, in his economical papers he gave the essential place to the ratio of economics and politics, putting the political methods to the first place. He believed that the «politics» is the concentrated expression of economy, its generalization and completion, therefore, it should be considered in its structural unity with capitalistic and other ways of production».

The transition period from capitalism to socialism was considered by him as the «*struggle between the passing away capitalism and emerging communism*»<sup>1</sup>.

V. I. Lenin made a significant contribution to the political economy of socialism when he developed and organized the practical realization of state structure with

its role to create the socialistic economy by administrative methods within the period of transition from capitalism to socialism.

He laid down the basis of plan making and planned economy.

K. Marx, F. Engels and later V. Lenin completed the economic teachings based on labour theory of the cost. The main reason of extremely cautious acceptance of the marxist economic theory by the society was the phylosophical class essence of their teaching calling on to the violent measures in the fight for social justice.

Further, after V. Lenin, the political economy of socialism turned to be the «collective science» and developed on the basis of program directions of communistic movement. In its foundation the political economy of socialism is the economic theory of formation, development and functioning of socialistic way of production.

J. Keynes considered that the labour theory of cost and, consequently, based on it the teaching of the marxist political economy, became the catastrophe for economic theory.

While the countries of the socialistic system followed the K. Marx and V. Lenin political economies in their economic programs, in the market economies the neo-classical school was developing.

Thus, the political economy founded by W. Petty on

the basis of theory of labour cost existed in total for 300 years. However, as it is known, the practice, including the economic practice, is the criterion of truth. Ten-fifteen years ago the political economy of socialism was still aspiring to the broadest representation in economic theory. The countries having socialistic way of production were the main recipients of it. However, with the collapse of the socialistic system in the beginning of 1990s this as the foundation of economic theory and economic relations lost its independence. The political economy in its finalizing stage - socialism - appeared to be untenable and the time proved it.

*Economics: methodology and main theoretical provisions*

In the history of economic doctrines and in development of economic theory there was the wide spread of the offshoots from the English classical political economy. Representatives of this doctrine appeared in the end of the XIX century not as a counterbalance of marxist class and philosophical «political economy» of capitalism and socialism, as it is accepted to consider, but as the independent direction of separate scientific economic thought that got the name of neo-classic thought. In this connection the famous Russian economist L.D. Kondratyev, in his article dedicated to



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M.I. Tugan-Baranovsky writes: «However, it is necessary to note that in the area of economic philosophy, together with marxism there appears the bright theory of marginal utility developed in 1970s by Menger, Jevons and Valras almost at the same time»<sup>1</sup>.

The English classical political economy investigated processes of economic development on macroeconomic level, the neoclassic economy - on microeconomic level.

Having revised the labor theory of the cost, the representatives of neoclassic theory began to consider the political economy as the subject of pure economic science or economics in general, irrespective of a structure and form of social organization. For the investigation they took not the social groups and classes, as it was in political economy, but separate «economic man» (homo economicus), that appeared in various manifestations of his nature: seller of labour force, entrepreneur and consumer. The «economic man» - «homo economicus», according to neoclassic economic theory always strives to the maximal profit and to minimal costs.

The new neoclassic direction in economic theory, that considered individualism as the basic principle of economics, formed such economic schools as Austrian economic school, German historic school, Anglo-American neoclassic school

and others the theoretical grounds of which played the positive roles in the economic development of their countries.

S. V. Braginsky notes: «In the last third of the previous century the revolutionary changes happened in the theory of cost. Let's mention the names of the well-known economists who made this revolution. They are Englishmen W.S. Jevons and Alfred Marshall, the Austrian man Karl Menger, Friedrich von Vizer and Yevgeny von Byom Baverk, the Swiss man Leon Valraz, the American John Beitz Klark, the Sweden man Kurt Viksel. Just with their names the principally new approach to the issue of cost is connected which is the analysis of «marginal utility»<sup>2</sup>. Following this authoritative statement we also will consider the development of the grounds of economic theory and economic doctrines.

The theory of marginal usefulness was formed within the neoclassic direction. But, before speaking about the development of neoclassic direction in economic theory, it should be noted that German economist G Gossen (1810-1858) was the founder of the theory of marginal usefulness on which neoclassical economic theory began to form. In 1854 he published the paper «Development of the social exchange laws and human activity

rules» by which he the first formulated the laws of rational consumption and psychological assessment of benefits. G. Gossen evaluates the usefulness of benefits in consideration of their necessity. If the volume of benefits is larger that it is necessary, their value reduces with every new unit of benefits or goods until it reaches full satiation and comes to zero. G. Gossen formulated two laws called later after his name: the law of diminishing utility (the 1st law) and the law of marginal utilities of various benefits (the second law). The theory of marginal utility has larger sense and meaning for the development of economic science within the period of 1870-1880es that in the history of economic sciences is called the period of marginalistic revolution. In the meantime, the economic problems study begins to shift within this period from macroeconomic level to the microeconomic one. The theory of marginal utility concerned the subjective opinion «homo economicus» and the economic value of commodity in consideration of its usefulness in conditions of excessive production, competition, crisis and scantiness of resources. Further, the theory of marginal utility formed to the independent school of neoclassic direction.

*To be continued.*

1. Kondratyev, Tugan-Baranovsky «Sources matters of the history of economy and economics», Edition 2, Economics, Moscow, 1990, p.284

2. S. V. Braginsky, Y.A.Pevzner «Political economy: debatable problems, ways of renevation», Moscow, «Mysl», 1991, p.51