

1998 Socio-Economic Survey of Households, Farms and Bazaars in Tajikistan

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Executive Summary

Tajikistan, one of the five Central Asian republics of the former Soviet Union, has experienced an exceptionally difficult post-independence period. Economic dislocation in conjunction with a brutal civil war has taken a major toll on the wellbeing of its population. After having reached near rock-bottom level, however, the economy grew by an estimated 1.7% in 1997, its first ever growth after independence. And in June 1997, the country saw the signing of a peace accord between the government and the United Tajik Opposition, signaling a potential end to the violence that has resulted in more than 35,000 deaths.

International organizations and NGOs have been present in Tajikistan since the endings of the civil war in 1993, initially providing emergency relief to the victims of the war. In the past several years, humanitarian assistance has been gradually shifting towards long-term development schemes. To that end, an obstacle in the way of program design and beneficiary selection has been the lack of reliable socio-economic data, forcing the humanitarian community to rely on arbitrary and outdated information. Efforts have been made, however, to close the information gap.

This report, the *1998 Socio-Economic Survey of Households, Farms and Bazaars in Tajikistan* was funded by the United States Agency for International Development (USAID) and implemented by Save the Children Federation. It has attempted to provide accurate and current socio-economic data on households, small farms and micro- and small businesses for the intended audience of donors, international organizations, NGOs and the government of Tajikistan. Data was collected during the months of June and July 1998. The sample population comprised of 1,020 randomly chosen households and 349 bazaar merchants. Interviews took place in six subset population areas of the capital city Dushanbe, Regions of Republican Subordination, Qurghonteppa and Kulob zones of Khatlon province, and the provinces of Leninabad and Badakhshan. The only major region of the country not surveyed (due to heightened security concerns) was the Gharm/Quarateguine valley.

The study found that 78% of households identify their ethnicity as Tajik, 17% Uzbek, 2% Russian, 1.6% Turkmen and 1% others. Based on the survey, 15% of all households in Tajikistan are headed by women. Furthermore, 44% of Tajikistan's population is below 16 years of age and 73% is 30 years old or younger. The average household size is 8.2 members, with households in the Kulob zone being the largest in the country at an average of 10.1 members. The study found that 4% of all households had been refugees as a result of the civil war and 15% had been internally displaced.

The average size of agricultural landholding for the bottom 95th percentile of households based on landholding size is 0.15 hectares (ha). Nearly one-fifth (18%) of households are landless. About half of the households in Tajikistan have agricultural landholdings of 0.1 ha or larger. Only 8.5% of households have agricultural landholdings of one ha or larger. Private use of lands is increasing. Nearly half (49%) of all the area of agricultural lands used by households are "rented", 18% are "home gardens", 18% "dehqan farms" and 10% "presidential" lands. One-in-five (21%) households have access to some area of presidential land and 12% have use of dehqan farmland. Overall, 61% of the lands used by households are irrigated. An estimated 72% of lands are flat, 13% are sloped and 15% are mountainous. Forty-one percent of households identify the lack of or insufficient land as their main farming constraint, 18% identify lack of machinery and 16% insufficient irrigation. Nearly one-in-four household (27%) claims homegrown wheat as its primary source of wheat. Half of all households own at least one cow, 86% of them being milk cows. The average numbers of farm animals per household are: 0.9 cow, 0.8 sheep, 0.6 goat and 1.2 poultry. The numbers of farm animals held by households are estimated to have been reduced by half since 1991.

On a weekly and per capita basis, among other food items, the average household member consumes 3.4kg of wheat flour or bread, 800gr of potatoes, nearly 180gr of meat, 1.1 liters of milk, 266gr of cooking oil, 800gr of fresh fruits, 38gr of tea and about 220gr of sugar. Consumption of meat has decreased by 71% and that of wheat flour and bread increased by 29% since 1991. The four most important food items identified by households in all regions of Tajikistan, except Badakhshan, are flour, cooking oil, sugar and rice. For households in Badakhshan, the four most important food items are flour, cooking oil, milk and tea. About a-third (32%) of all households in Tajikistan consume mixed-flour bread.

On the average, households reported their existing food stocks to last for 8.3 days. This survey defined "food security" as "assured access by the household, primarily by production or purchase, to enough nutritious food to sustain healthy lives, excluding food aid". The same definition was upheld for "food adequacy" with the addition of "food aid". Based on an attempted nutritional analysis of per capita levels of major food items consumed by households, nearly one-fourth (23%) of households in Tajikistan are categorized as food insecure, and (with overlap) almost one-fifth (18%) are categorized as food

inadequate. Among the regions surveyed, the highest levels of food insecure households belong to Badakhshan (55%), RRS (27%) and Dushanbe (26%) and the highest levels of food inadequate households belong to RRS (26%) and Dushanbe (23%). When looking at households that receive an equivalent of 100gr or more of food aid per person per day, it was found that though a large part of Badakhshan (84%) receives food aid at this level, only 4% of households in Qurghonteppa, 1% in Kulob, Dushanbe and Leninabad and no households in RRS receive food aid at this level.

One-quarter of households have at least one female member being pregnant or lactating. The average age of pregnant or lactating women is 27 years. Despite the deterioration of water delivery and treatment facilities throughout the country and the widespread threat of water-borne diseases, more than a third of the households (36%) do not boil their drinking water. A-quarter of the households that do not boil their drinking water cannot afford the fuel. Overall, 43% reported firewood being their primary source of household fuel, 28% electricity and 14% cow-dung. The average number of rooms per household is 3.9 and the per capita sheltered living area is 7.9 square meters (85 square feet) per household member. The three main problems of schools identified by households are lack of or shortage of clothing and shoes (33%), books (28%) and teachers (18%). School non-attendance is estimated at 15%.

Average household expenditures are an equivalent of \$69 per month. The top four expense categories and their proportion to the monthly household expenses are: food (53%), health and hygiene (11%), ceremonies (10%) and clothing (9%). Households in Dushanbe have the highest monthly expenses at \$91 and those in Badakhshan the lowest at \$58.

Average household monthly income is an equivalent of \$64. The top four sources of income and their respective proportion to the monthly household income are: salaries and pensions (28%), household-consumed agricultural production (24%), business revenues and sales (22%) and borrowing (7%). The richest quintile (20%) of households in Tajikistan owns 52% of all household incomes and the poorest quintile 4%. An estimated 6% of households have at least one family member abroad. On the whole, remittances sent by migrant workers to Tajikistan constitute an estimated equivalent of \$19 million a year. Based purely on the household income data, the per capita income for Tajikistan was calculated at an equivalent of \$111 per year, with Dushanbe having the highest at \$170 and Kulob the lowest at \$81.

Two thirds of the households (65%) identified their main village or neighborhood problem as lack of sufficient food (31%), potable water (18%) and unemployment (16%). More than one-third (37%) of the households think that "peace and security" are the main requirements for community development. When asked to select a country which they would prefer the economy of Tajikistan to resemble in the future, 53% chose the USSR, 9% the United States, 9% Uzbekistan, 7% Germany and 3% Iran.

The bazaar survey found that 70% of businesspeople claim their reasons for being at their current job to be their previous low income and lack of alternatives. An estimated 63% of businesses have one owner and 25% are jointly owned. Among the businesses that import, more than half does so from Uzbekistan and a-quarter from Kyrgyzstan.

On the average, an 18% mark-up is put on goods for resale. Transportation expenses were identified as influencing prices the most. Businesses in Badakhshan reported an average mark-up of 43%. The average monthly expenses for micro- and small businesses are an estimated equivalent of \$798. The top five business expenses and their proportion to the monthly expenses are: purchase of goods for resale (81%), transportation (5%), taxes (4%), charity (2%) and wages (1%). Businesses identified their major constraint as racketeers and the demanding of illegal fees (36%), political instability (21%), taxes and tax police (13%) and the economy (9%).

In more than half the cases, personal savings were the source of start-up capital. Nearly half of all businesses claimed to have borrowed money in the past year. Of those, 95% did so from an acquaintance or family member and 3% from international sources (Aga Khan Foundation and Save the Children). Practically no one cited a bank as a source of capital. The instability of the Tajik rouble, the generally short-term nature of borrowed loans and the lack of established banking institutions specializing in advancing of credit especially to micro- and small businesses have contributed to an average interest rate equivalent to 131% annual. An estimated 61% of businesses prefer their children not to pursue business as a profession.

Finally, the report outlines 10 general recommendations for the improvement of relief and development activities in Tajikistan. They deal with the sectors and issues of: food-for-work and food aid, agriculture, environmental protection, credit schemes, health and sanitation, conflict resolution, human rights, strengthening of national staff, audits and project monitoring, and women's advancement □

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Introduction¹

Tajikistan became known to many as late as 1992-93 when the country had become engulfed in a civil war fought along regional and ideological differences. The violence resulted in an estimated 35,000 fatalities and hundreds of millions of dollars worth of damages to homes, agriculture and industry. Sporadic armed conflict along with negotiations were taking place between the Government and the United Tajik Opposition (UTO) until July 1997 when the two sides signed a peace accord in Moscow with the intentions of ceasing all hostilities and gradual power-sharing.

Socio-Economic Situation

Post-Soviet independence in 1991 had been especially traumatic for Tajikistan whose economy was highly dependent on the USSR. As late as 1990, Tajikistan was receiving the highest, among all the former Soviet republics, of union budgetary transfers, equivalent to 23% of its GDP. At the same time, it had the highest inter-republic trade deficit and the lowest GDP (Dannreuther 1994, Rubin 1994). In addition, although Tajikistan has been primarily a rural and agricultural society with 41% of its 1990 work force employed in agriculture (the highest in the USSR), due to its highly mountainous topography (covering 93% of its territory), its per capita cereal production was (and still remains) one of the lowest among the former republics (World Bank 1997-a).

Independence and civil war have continued to take their toll on the people. Real wages have dropped under subsistence level and GDP currently stands at an estimated 40% of pre-independence. Not surprisingly, due to the economic and social turmoil, a large portion of the skilled professionals has emigrated. Nevertheless, some signs of hope for an eventual turnaround have appeared. In addition to the peace accord, by the end of 1997, after having had hit nearly rock bottom, the economy registered a growth of 1.7%—its first ever increase after independence (Fig. 2).

At least part of that growth has been due to the expansion in private farming—estimated to constitute 30% of the value of all agricultural production (EBRD 1998). Land reform program and an end to Soviet-style state guaranteed wheat imports and bread subsidies have encouraged the population to be more self-reliant and among other things cultivate more food crops. Consequently, production of grain during 1997 was more than double that of 1995—the year which major policy changes took place—and reached 560,000 metric tonnes (MT). Cotton production in 1997—though still a quasi-government monopoly—rose to 358,000 MT, a 13% rise over 1996 (EIU 1998-b).²

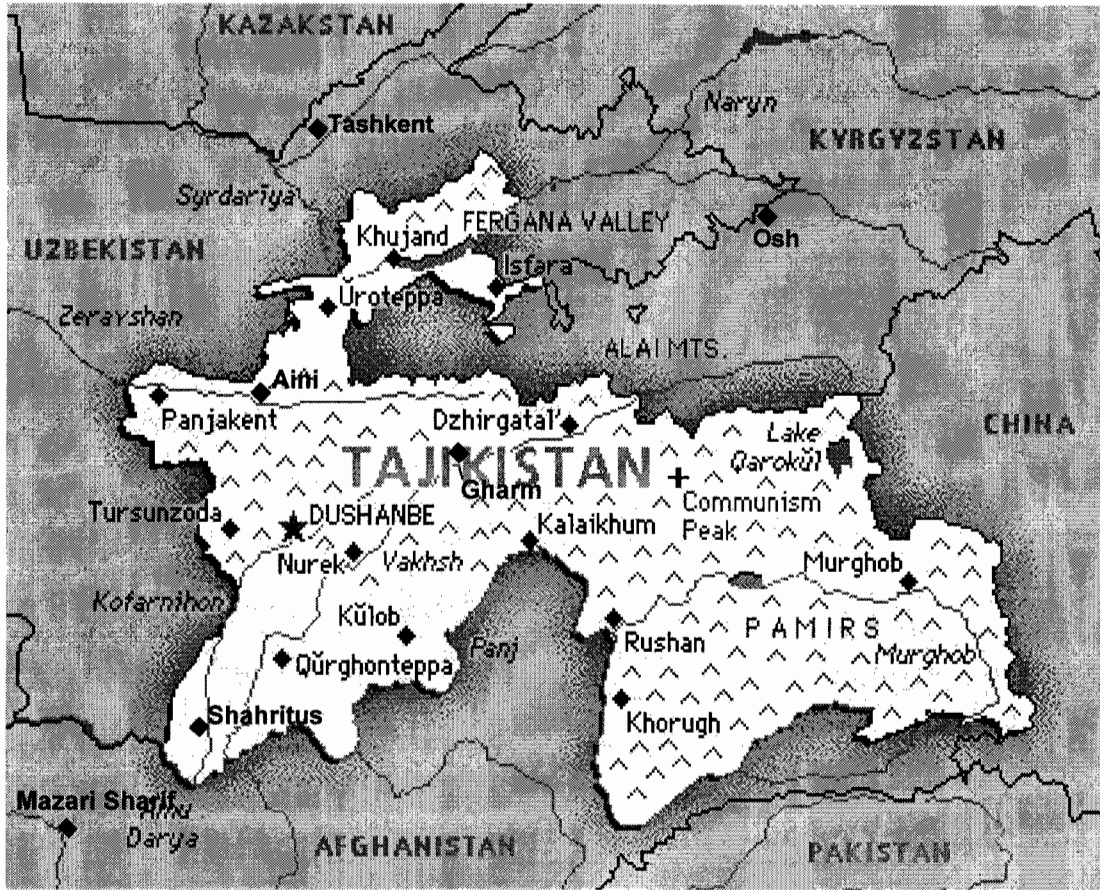
Despite the moderately hopeful macro-economic news, life for the average household in Tajikistan, even at subsistence level, remains a challenge. At an estimated \$153 to \$340 annually, Tajikistan's per capita income stands as one of the smallest in the world.³ There has been a

¹ This work is dedicated to a dear colleague, **Ms Kareen Mane**, a victim of political violence in Tajikistan. The survey manager, Payam Foroughi, would like to thank the following people for their work on this report: surveyors Ms Jemma Yusouphanova, Ms Mahbuba Solieva, Mr Kamol Atoev, Mr Muhammadi Tursonov, Ms Gulnora Mirzoeva, Ms Dilorom Atoeva, Ms Nazokat Ganieva, Ms Mahabbat Hamdamova, Mr Shahboz Abdulrazoghov and Mr Farhod Husseinov; drivers Mr Anvar Rahmatov, Mr Taer Mirov, Mr Bobomurod Aminov and Mr Mahmud Yunusov; office assistant Ms Irina Kalganova, computer specialists Mr Dilshod Rashidov and Mr Romesh Shirali and data consultant Mr Timur Murodshoev. Valuable suggestions by Mr Robert Kaufman (SCF), Ms Raissa Muhutdinova and support by Mr Robert Birkenes (Economic and Social Data Service of USAID) are also highly appreciated. The views expressed in this report are not necessarily those of Save the Children Federation or USAID.

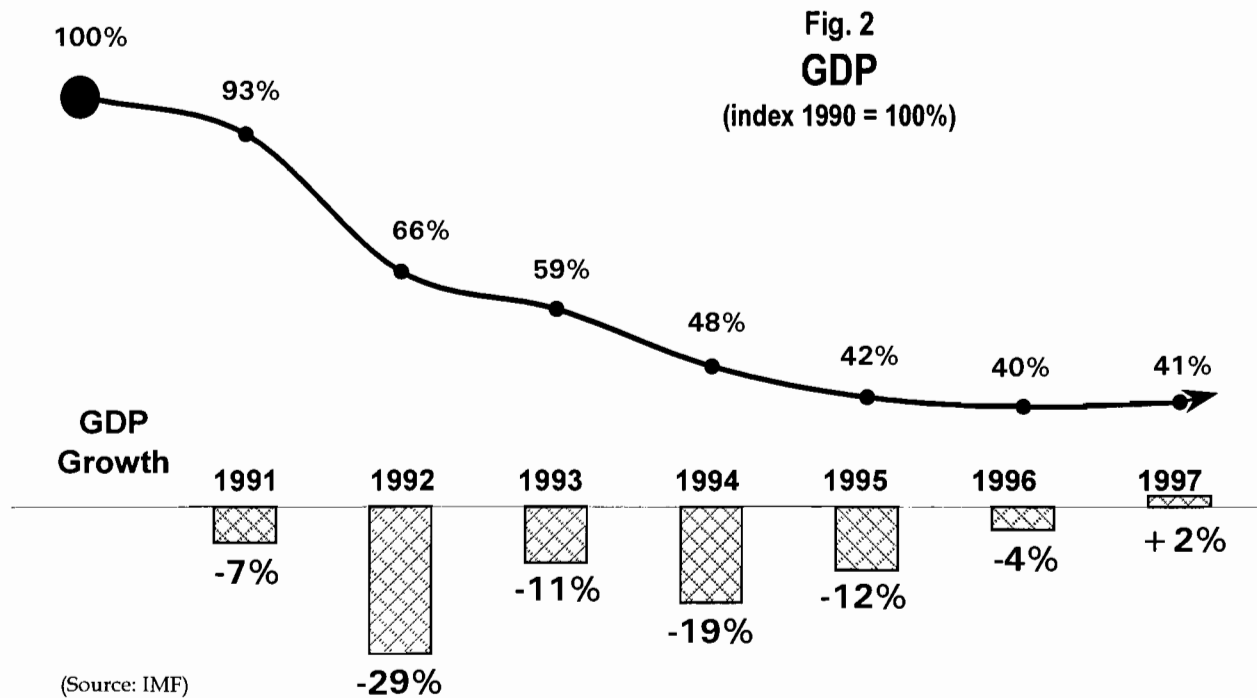
² Despite some level of privatisation, a large part of the raw cotton production is sold directly to the government and all cotton is processed into fibre in the 23—to be privatised—state-owned ginneries (Sofreco 1998).

³ The \$153 per capita annual income is based on the 1997 GDP of TJR518.4 billion, a population of 6 million (State Statistical Committee 1997) and an average 1997 exchange rate of TJR564: \$1 (EIU 1998-b). The latest published World Bank estimate (1995) for Tajikistan's per capita GDP is \$340. That figure is based on the concept of *purchasing power parity* (PPP) which takes into account the prices of goods and services that are "not traded on international markets [and which] tend to vary substantially from one country to another." PPP is suppose to more-or-less correct for international differences and provide "a better comparison of average income or consumption between economies" (World Bank 1997-b, p. 251). Tajikistan's GDP and per capita income are rated as the lowest among the former Soviet republics and East European countries (EIU 1998-a).

Fig. 1



(Source: Microsoft)



(Source: IMF)

continuing deterioration of the social safety net left over from the Soviet era. Schools and hospitals, for example, lack the funds to retain their once skilled staff, purchase needed inputs and maintain their premises. School attendance has been declining and infant and maternal mortality rates have remained nearly the highest among East European and former Soviet republics.⁴

The international humanitarian community has been present in Tajikistan as early as the civil war years, assisting the government and the population with a variety of relief and development programs. Total humanitarian assistance for the two-year period 1996-97 was about \$143 million with the far majority coming from the United States (53%) and the European Union member states (43%) (UN 1998).

Purpose of the Survey

Lack of reliable information on the problems and successes of the micro-economy--especially at the household level--has forced much of the donors and international aid organizations to rely on outdated data or arbitrary methods when designing programs and selecting beneficiaries. This might have been acceptable during the early post-independence and post-civil war years due to the then emergency nature of international assistance. However, consensus has evolved in the development community that in order for aid to reach the truly needy and in order to focus on long-term development solutions, it is indispensable to have access to proper and updated socio-economic data.

In 1995, a first of its kind socio-economic survey for Tajikistan was conducted by Save the Children Federation/US (SCF) and funded by the United Nations. The main objective of that study was better understanding the "people's economic coping mechanisms", and "how the international community can better provide assistance to promote economic development ..." (Birkenes 1996, p. 4). That survey entailed the collection of information through interviews with 319 randomly selected households and 156 bazaar merchants throughout Tajikistan--excluding the province of Badakhshan. The results of that endeavor influenced Save the Children's decision to design programs such as its ongoing micro-credit scheme. SCF's 1995 survey has also acted as an invaluable guide for other NGOs, donors and international organizations working in Tajikistan.

Another noteworthy insight into the socio-economic condition of households in Tajikistan has been that of a European Community Humanitarian Office (Echo) survey of household food security conducted in June 1997. That endeavor, among other things, concluded that an estimated 16% of Tajikistan's population are food insecure. Among its recommendations, it proposed the targeting of food aid at household level rather than at individuals who fall within vulnerable categories (Freckleton 1997).

The current report, the *1998 Socio-Economic Survey of Households, Farms and Bazaars in Tajikistan*, funded by a grant from the US Agency for International Development (USAID), has been intended to build upon SCF's 1995 survey, on a wider and more encompassing level. Its objectives have been the following:

- 1) Determine the socio-economic state of households, merchants and farmers in terms of levels of income/poverty, demographic composition, survival strategies, ongoing and newly found income generating activities, access to land, markets and resources. In line with this goal, the following questions were to be answered: What is the estimated per capita income of people living in various locations of Tajikistan? What are the needs of households, farmers and small- and medium-size businesses? Have coping mechanisms as a result of economic and civil turmoil changed since 1995? What types of financial services are available? What are the formal and

⁴ Tajikistan is estimated as having the highest maternal mortality rate (MMR) and second highest infant mortality rate (IMR) among the countries of Eastern Europe and the former Soviet Union. Tajikistan's MMR is estimated at 130 deaths per 100,000 live births. Romania is estimated as having the same rate of MMR, and Slovenia the lowest at one-tenth that of Tajikistan. Tajikistan's IMR is estimated at 61 deaths per 1,000 live births. The highest IMR among the countries of Eastern Europe and former Soviet Union belongs to Turkmenistan at 69 deaths per 1,000 live births and the lowest is that of Slovenia at 7 deaths per 1,000 live births (BWI 1998).

informal services used by households and businesses? And of what services and resources, in their opinion, are they in immediate and long-term need?

2) Assess the trend of the ongoing government farm privatization and market liberalization policies on the lives of Tajikistan citizens. Are the distributed private agricultural plots profitable? Who are the recipients of privatized lands? What factors allow one to be a recipient? What are farmers and rural communities growing and at what yield levels?

3) Based on survey responses, determine what regions of Tajikistan are doing better and which are worse off? Rank districts (*oblasti*) in terms of subsistence levels.

4) Identify feasible recommendations to NGOs, international organizations and the Government of Tajikistan on the improvement of quality of life for urban-dwellers and the rural population.

Methodology

The following steps were taken to complete this survey: a) staff recruitment; b) questionnaire design; c) sample population determination; d) data collection and e) data analysis. Below is a brief description of each:

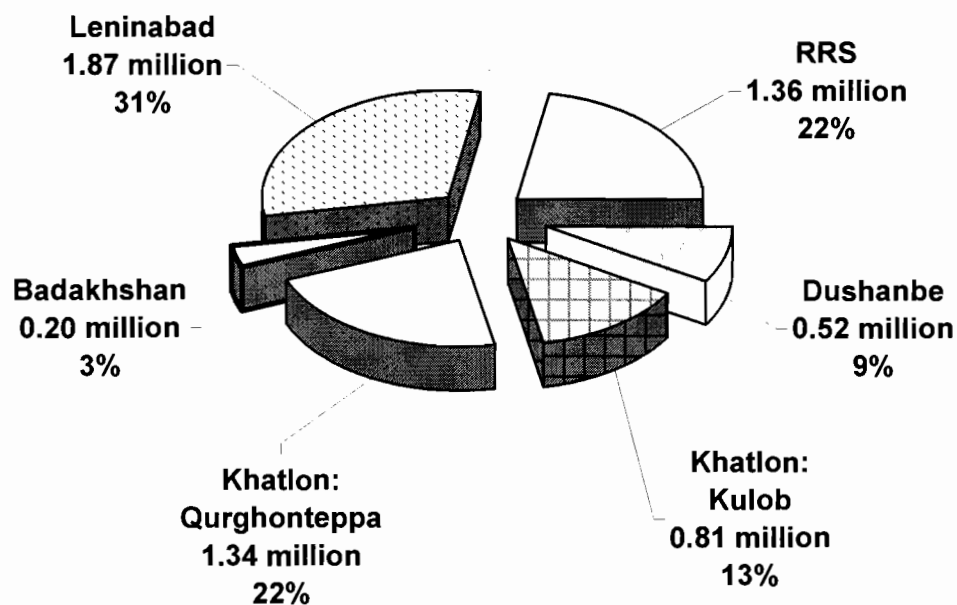
a) Though on short-term contracts, all the staff of the survey project was hired on competitive basis. Position descriptions were advertised in Russian and English and sent to major organizations in Tajikistan through the country's main e-mail system (Cada). To finalize staff recruitment, nearly 80 applications were reviewed and about 50 interviews were conducted. A total of 10 surveyors (6 women and 4 men), 2 computer specialists, 1 data entry clerk, 1 office assistant and 4 drivers were recruited. All surveyors were fluent in Tajik and Russian. At least 3 were fluent in Uzbek as well;

b) It was decided that two questionnaires--on the household and bazaar levels--would satisfy the objectives of the survey. The household survey would also include sufficient questions on farming. Surveyors were trained in proper interview techniques during two days, and the questionnaires were drafted by the survey manager with assistance from the survey team. After SCF management review, the team field-tested the questionnaires by conducting four interviews per surveyor in Dushanbe and nearby rural communities. Meanwhile, draft copies of the questionnaires were sent to the end-users, i.e. all international organizations in Tajikistan and relevant Government ministries for their review and comments. The final version of the questionnaires took into consideration their inputs;

c) Probability sampling was used to allow all households in Tajikistan equal chance of being part of the study. Stratified samples were utilized to ensure the representation of all major regional strata of Tajikistan--at least by province. Six strata or subsets of the population corresponding to the six broad population areas of Tajikistan were chosen, they being: 1) Leninabad province; 2) Badakhshan province; 3) Qurghonteppa zone of Khatlon province; 4) Kulob zone of Khatlon province; 5) Regions of Republican Subordination (except Dushanbe), and 6) the capital, Dushanbe. Khatlon province was split into two to ensure the representation of both its Eastern (Kulob) and Western (Qurghonteppa) zones. The only major area of the country not visited was that of the Gharm/Qarateguine valley, which due to the unclear security situation was deemed wise not to be surveyed.

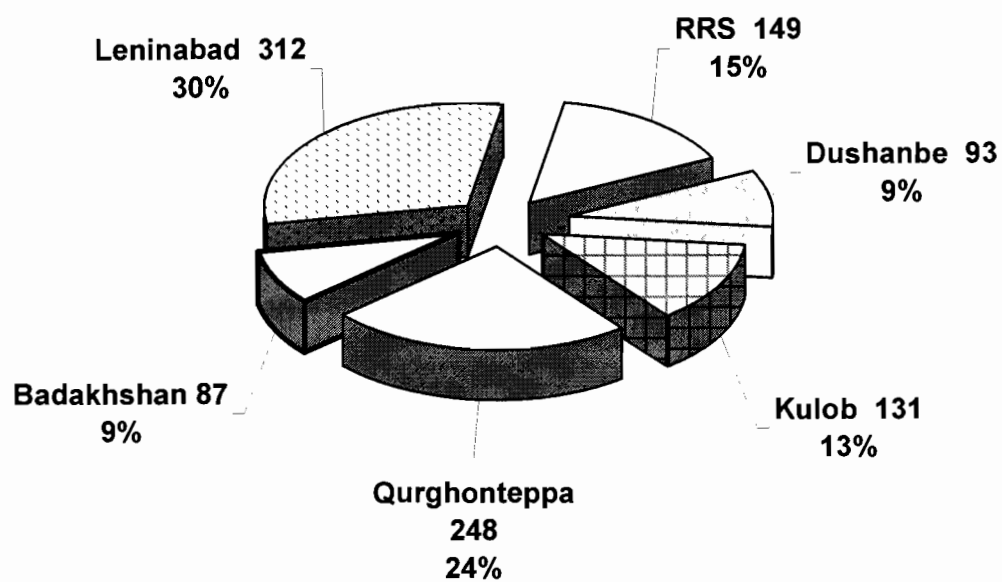
Sample sizes for the household and bazaar populations were chosen while keeping in mind that the most important concept in surveys are the sample population's representativeness of the population under study rather than size (McDaniel and Gates 1991). It was decided that the household questionnaire required a random household sample population with a minimum of 1,000 household interviews, and the bazaar questionnaire a minimum of 300 interviews. The survey also attempted to abide by the 70%-30% estimated rural-urban breakdown of Tajikistan's population. At the end of data collection, a total of 1,020 households and 349 bazaar merchants were interviewed throughout the country with 34% of the households being urban, 66% rural (due to the larger size of the rural households, the total household population surveyed was 71% rural and 29% urban). Since

Fig. 3
Tajikistan's Population
 (1998 estimated total = 6.1 million)



(Regional percentages from the State Statistical Agency)

Fig. 4
Household Survey Population
 (n = 1,020 households)



the far majority of business activity is in town and city bazaars, almost all bazaar surveys were conducted in urban areas.

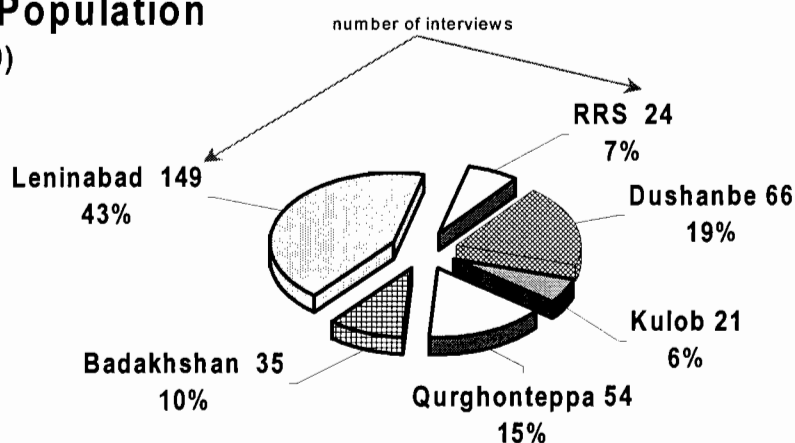
To identify sample households quickly, when in a given village or city, cluster sampling was applied, where one or more streets or neighborhoods were randomly picked and a predetermined number of households from those clusters were interviewed. About one-in-twenty (5%) of the attempted sample population refused to be interviewed (18 bazaar merchants and 54 households). **Figure 3** depicts the sizes of the population strata of Tajikistan. As much as possible, proportionately corresponding stratified samples were selected. **Figure 4** shows the sample population. It was decided that due to Badakhshan's small population, yet its significance, and its geographically and bureaucratically cumbersome setting (acquiring travel permits and plane tickets to Badakhshan are not easy), that a proportionately larger stratum would be selected from there. This was the only digression from the concept of stratified sampling.

Determination of bazaar stratum sizes were difficult due to the lack of readily available and reliable information on market trade statistics, which could have acted as a basis of stratum size determination. **Figure 5** depicts the distribution of the bazaar survey by sample strata. Their proportions more-or-less correspond to the rough data on distribution of retail trade in Tajikistan;⁵

d) The survey team was based in Dushanbe. Data for Dushanbe, itself, and other parts of Regions of Republican Subordination (RRS) were collected through day-trips and the rest were collected through three major trips (average of 10 days per trip) to the provinces of Khatlon, Leninabad and Badakhshan. Each household interview took on the average 56 minutes to complete and each bazaar interview about 30 minutes;

e) The collected questionnaires were inputted by the surveyors and the computer staff in Access computer program. Two databases corresponding to the household and farm survey and the bazaar survey were formed. Data analysis was conducted using Access and Excel programs. The following sections give account and interpretation of that analysis □

Fig. 5
Bazaar Survey Population
(n = 349)



⁵ Regional shares of retail trade between January and May 1998 were reported by the State Statistical Committee as totalling TJR110 billion (\$132 million), with 37% in Leninabad, 34% Dushanbe, 21% Khatlon, 7% RRS and 1% Badakhshan.

Households & Farms Survey Results

A total of 1,020 randomly selected households were interviewed throughout Tajikistan and a variety of information on their socio-economic status and their agricultural practices was sought. The main person interviewed per household in 51% of the sample population cases was a women, in 47% of the cases a man and in 2% of the cases both a man and a woman were interviewed (**Fig. 6**). This only shows the gender of the person who began answering the survey questions. In most cases, by mid-interview, other family members, some male, some female would join in the interview. The average age of the main interviewee was 42 years. **Figure 7** depicts the age distribution of the interviewees.

Interviewees were asked to identify the head of the household. **Figure 8** looks at the responses to that inquiry. If broken down by gender, 84% of the households identified the head of the household as being male, 15% female and 1% identified both (**Fig. 9**). Among the regions surveyed, the highest percentage of female-headed households were found in Badakhshan (23%) and Qurghonteppa (20%), and the lowest in Leninabad (12%). Households were also asked to identify the "primary earner" (*sarobon* in Tajik). Nearly 80% identified a male member as their primary earner, 14% female and 6% both (**Fig. 10**). When broken down by region, the highest percentage of female primary earners was found in Qurghonteppa (21%) and the lowest in Leninabad (9%).

Ethnicity & Regional Origin ⁶

Though nominally representing one ethnic group, Tajikistan is home to a variety of peoples and "nationalities". As depicted by **Figure 11**, the household population surveyed identified themselves as being 78.0% Tajik, 17.4% Uzbek, 1.9% Russian, 1.6% Turkmen and 1.2% other (Tatar 0.5%, Kyrgyz 0.2%, Bashkiri 0.2%, Kazakh 0.1%, Maldovan 0.1% and Dagestani 0.1%). Tajikistan's ethnic composition as depicted by this survey resembles that of SCF's 1995 survey findings, yet is slightly different from Echo's 1997 findings.⁷

When looking at household ethnicity by population stratum or region (**Fig. 12**), one can conclude that the Qurghonteppa zone of Khatlon province is the most ethnically heterogeneous region of Tajikistan, with 37% of the households surveyed having identified their ethnicity as something other than Tajik, such as Uzbek and Turkmen. On the contrary, Badakhshan province is the most ethnically homogenous region of the country with 100% of the households surveyed having identified themselves as Tajik.

The extensive migration and resettlement schemes imposed and promoted by the Soviet planners shortly after the creation of Tajikistan in its present borders as late as 1929, have led to much of the people identifying their regional origin as different from their place of residence and birth. This is especially true of households in the city of Dushanbe and the Qurghonteppa zone of Khatlon. **Figure 13** looks at the top 88% of household responses to the regional origin question for the whole survey population. The top ten regional origins identified by the households in the

⁶ Prior to the commencement of the survey, several of the questionnaire reviewers, both among international organizations and government ministries, suggested that the survey team eliminate the questions on ethnicity and regional origin, reasoning that they are sensitive issues given the memories of the civil war. While field-testing the questionnaires, however, the team found that a variety of "sensitive" questions can be asked from the people, and that the cooperation of the interviewee depends on his or her perceived trust of the surveyor. The wording of the questions and the manner in which they are asked were found to be extremely important. Among the 1,369 combined household and bazaar interviews, practically no one refused to state his or her ethnicity and regional origin and the questions did not seem to cause alarms among those surveyed.

⁷ In the 1995 SCF survey, the following ethnic composition for households and bazaars combined were found: Tajik 77%, Uzbek 17%, Russian 3%, Tatar 1% and others 3% (Birkenes 1996). Echo's findings on Tajikistan's ethnic composition of households were Tajik 65%, Uzbek 23%, Russian 5% and others 7% (Freckleton 1997).

Fig. 6
Gender of Interviewee(s)
(n = 1,020)

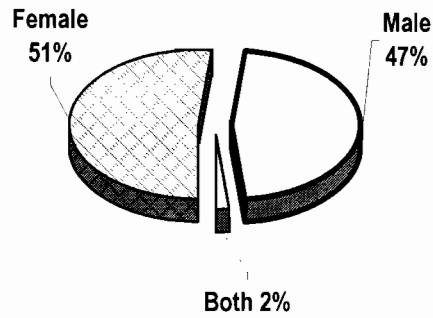


Fig. 7
Age of Interviewee
(n=1,020; average = 42 years)

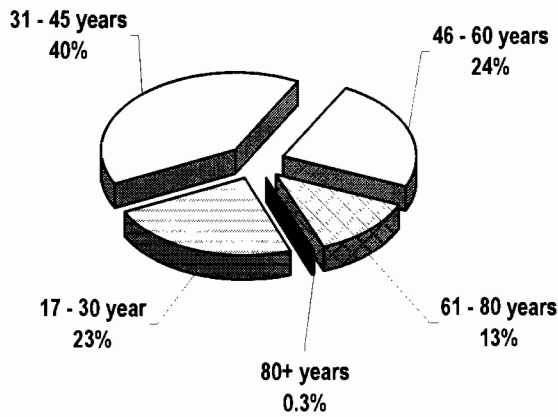


Fig. 8
Household Head
(n=1,020)

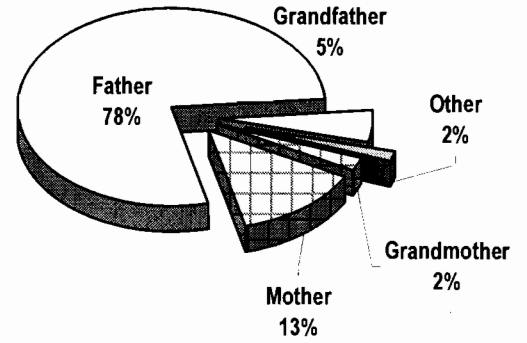
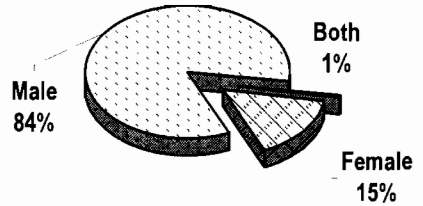


Fig. 9
Gender of Household Head
(n=1,020)



Female-Headed Households

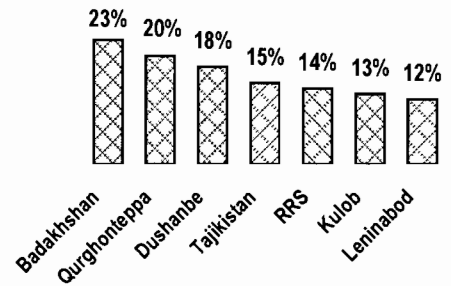
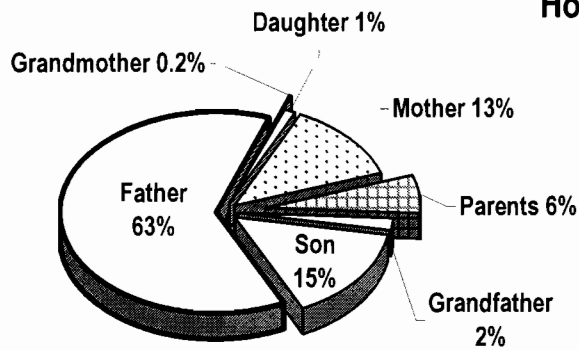
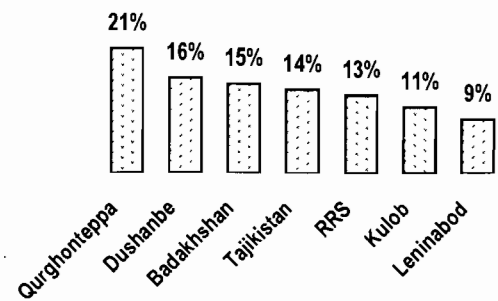
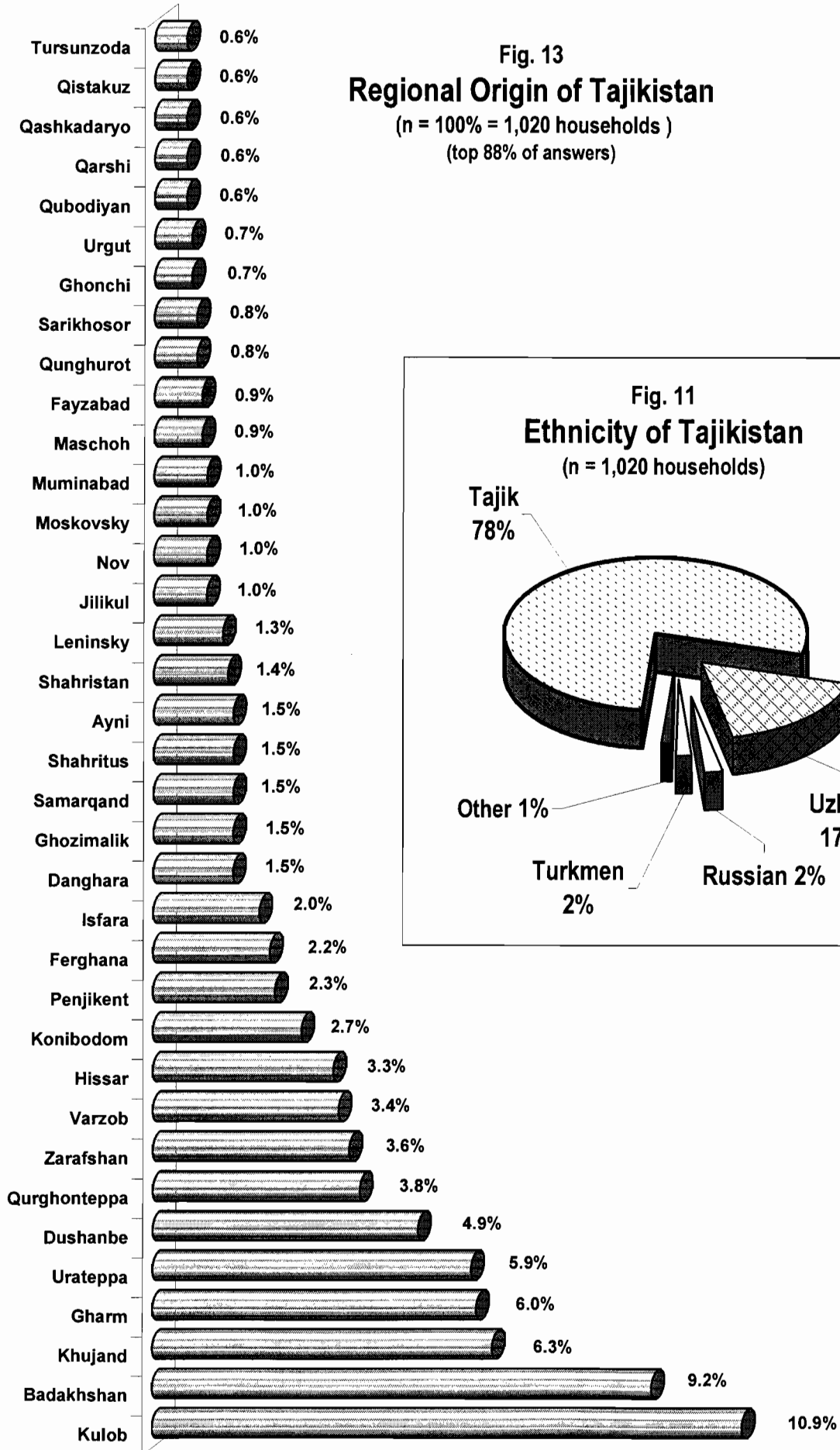


Fig. 10
Household Primary Earner
(n=995)

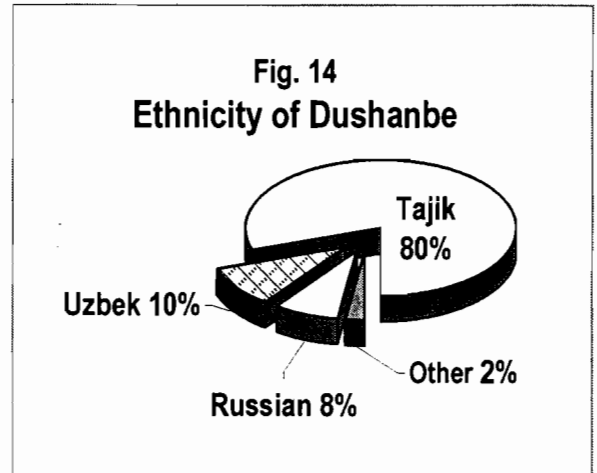
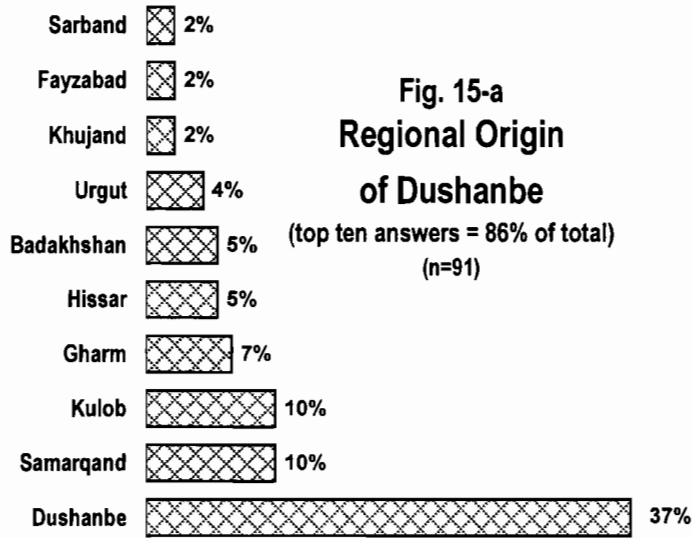
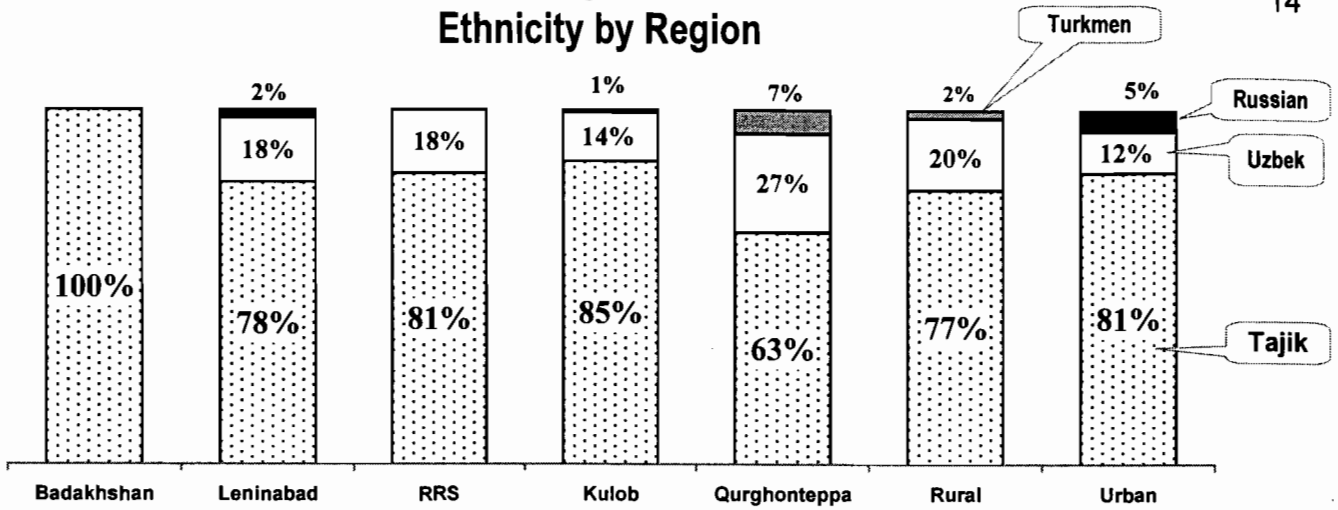


Households with Female Primary Earners

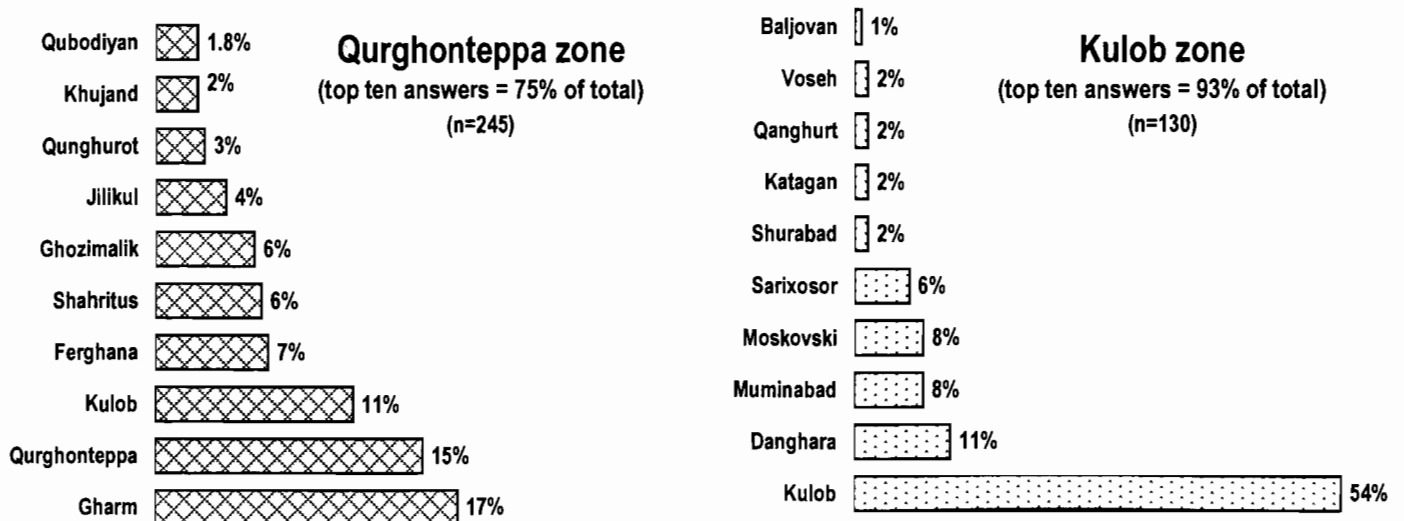




**Fig. 12
Ethnicity by Region**



**Fig. 15-b
Regional Origin of Khatlon**



surveyed areas were: Kulob 11%, Badakhshan 9%, Khujand 6%, Gharm 6%, Urateppa 6%, Dushanbe 5%, Qurghonteppea 4%, Zarafshan 4%, Varzob 3% and Hissar 3%.⁸

Figures 14 and 15-a show the reported ethnic composition and regional origin of surveyed households of Dushanbe. Only 37% of households in Dushanbe identified their regional origins as Dushanbe as well. A total of 10% of households in Dushanbe identified their regional origin as Samarqand with another 10% Kulob. Other responses were Gharm 7%, Hissar 5%, Badakhshan 5% and Urgut 4%.

Figure 15-b depicts the reported regional origin of the surveyed households in Khatlon province broken down into its two zones of Qurghonteppea and Kulob. As was shown by Figure 12, the Qurghonteppea zone is the most ethnically heterogeneous region among the regions surveyed. Figure 15-b shows that it may well be the most heterogeneous region in Tajikistan in terms of regional origin as well. Its top ten responses to the regional origin question totaled only 75% of its total household responses to that question. The nearby Kulob zone which was found to be more ethnically homogeneous (Fig. 12) was found to be more homogeneous in terms of regional origin as well (Fig. 15-b), with the top ten responses to that question totaling 93%.

Age

Figure 16-a is the distribution of the survey population by selected age groups and gender. The 1,020 households surveyed were found to consist as a whole of 8,328 members split almost evenly among males (49.2%) and females (50.2%). Inferring from the data, it is safe to posit that 44% of Tajikistan's population is younger than the age of 16 (**Fig. 16-b**). This is compatible with Echo's 1997 findings of 45% of its sample population being younger than 16 years (Freckleton 1997). Our survey also found that RRS has the highest proportion of below-16 year olds at 48% of its population and Badakhshan the lowest at 36%. And the survey found that the rural population has a larger proportion of below-16 year olds as compared to the urban folk (44.3% vs. 41.6%). Furthermore, the survey showed that an estimated 48% of the population of Tajikistan are below the age of 18 and 73% or nearly three-quarters are 30 years old or younger.

When looking at the adult male population between the ages of 18 and 60, it was found that Khatlon province has the lowest percentage of such age group at 21.6% for the Qurghonteppea zone and 22.4% for the Kulob zone (**Fig. 16-c**). Badakhshan was found to have the highest proportion of adult males at 25.6% of the total survey population for that region. The relatively low proportions of adult males in the Qurghonteppea and Kulob zones may be due to the high incidence of casualties inflicted on that age group in Khatlon during the 1992-93 civil war. It may also be a result of a possible higher proportion of the adult male population of Khatlon, due to socio-economic reasons, having migrated to other parts of the republic and the CIS.

Household Size

Figure 17 shows the average size of households by region.⁹ Households throughout Tajikistan were found to compose on the average of 8.2 members. It was found that Kulob has the largest households at an average of 10.1 members, and Dushanbe the smallest at an average of 7.0 members. Based on our survey, 30% of households in Tajikistan are made of 10 or more

⁸ One can find many people who either themselves or their immediate ancestors have been emigrants from within and without Tajikistan to specially the Southwest part of the country (Qurghonteppea zone) and Dushanbe—areas populated primarily through Soviet agricultural and urban development schemes. One can also encounter elderly people—75 year-olds and older—in Leninabad who were born in what was then Turkestan, a semi-independent region of Central Asia under Czarist Russian rule. By the early 1920s, these folks found themselves part of the Uzbek Soviet Socialist Republic, and by 1929 part of the Tajik Soviet Socialist Republic—both having been autonomous republics of the USSR. By 1991, these same people found themselves part of the newly independent Tajikistan. Some of them have never ventured out far from their village. They have, however, seen their nationality (citizenship) change three times during their lifetime.

⁹ A "household" (*khojagi* in Tajik) was defined as all the people who live within one residential unit and share the same kitchen.

Fig. 16-a
Survey Population by Age
 (n=1,020 households; 8,328 members)

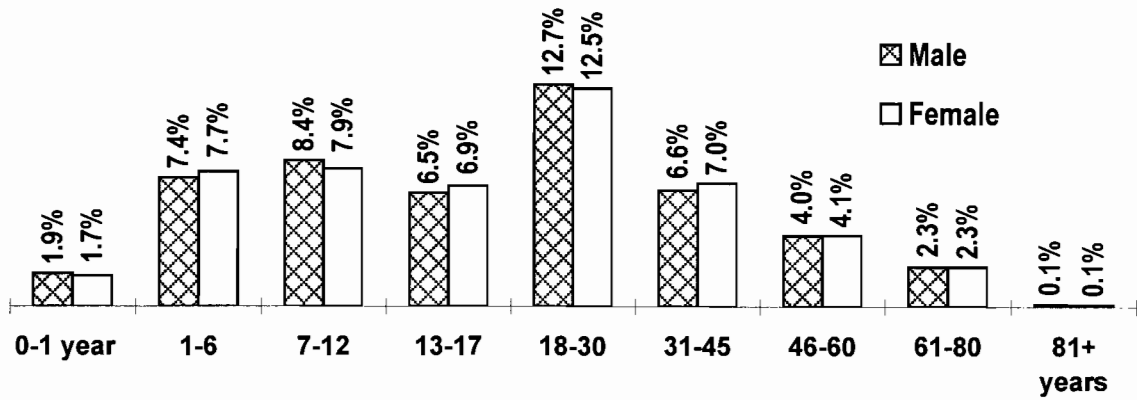


Fig. 16-c
Adult Males Aged 18 to 60 Years
 (as % of surveyed population by region)

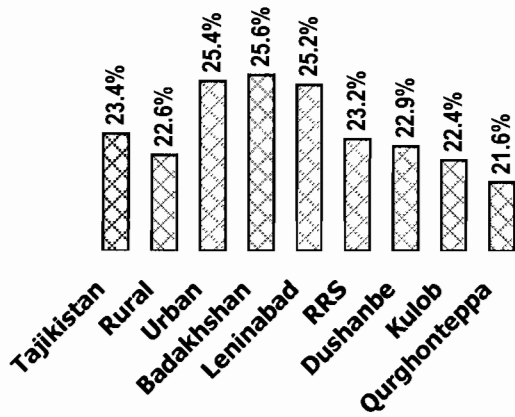


Fig. 16-b
Population Below 16 Years of Age
 (as % of surveyed population by region)

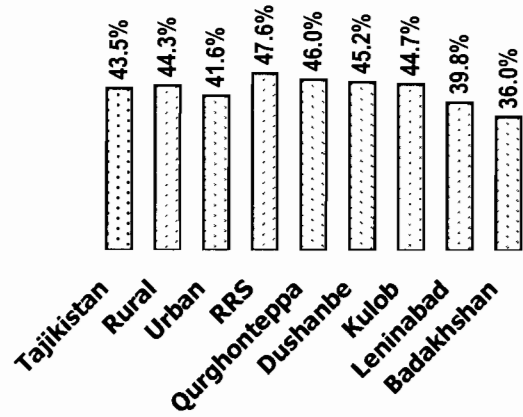


Fig. 18
Families per Household

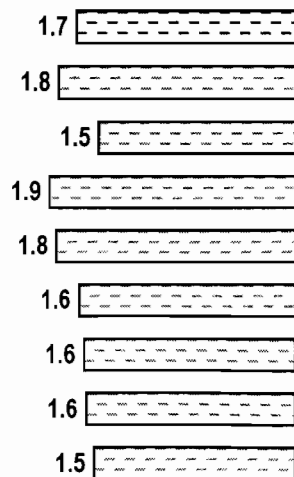
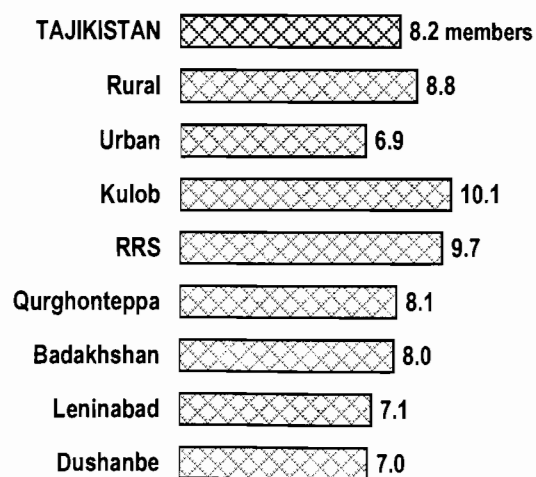


Fig. 17
Average Household Size



Ismoil is 31. He studied Russian Literature in college. Since 1992, he has been working for the Penjikent district government in Leninabad. His household is small. There's only himself, his wife, their 10 year-old son and his mother. Ismoil's wife is a kolkhoz worker earning TJR1,000 (\$1.20) per month. His government salary is TJR5,000 (\$6) per month. In order to make ends meet, the household utilize a 0.1 ha dehqan farm in which they raise about 300kg of tobacco fetching around TJR120,000 (\$145) annually. Ismoil says that the household also sells an estimated 15% of the produce grown on their 0.05 ha kitchen garden attached to their house. The garden produced about 370kg of fruits and vegetables this year.

When combining all sources of income, Ismoil's household makes TJR26,800 (\$32) a month. The household claims to have monthly expenses totaling TJR42,000 (\$51). Recently the household sold its only television set for 700,000 Russian roubles (about \$113). They were hoping to buy a cow with the money. Low food stocks, however, forced them to spend the earnings on flour and other food commodities. To earn more, Ismoil is contemplating short- or long-term employment in Russia, something that many young men in the region have been doing. Ismoil says that the depressed economy of the region should justify more humanitarian assistance to the Penjikent district.

Parvina is 53 years old. She lives in the settlement of Konsoi of Khujand district in Leninabad. There are 9 members in her household: Erkinboy, her husband, two sons, one daughter, a daughter-in-law and three grandchildren. The family lives in a small home with a 0.02 ha garden. The home garden runs dry most of the year due to water shortages. There is a grapevine and three apricot trees in the garden. The family has 6 sheep that are tended to by their 5 year-old grandchild. To economize on food, the household mixes wheat and corn flour when baking bread. Their mainstay is bread, potatoes, rice, lentils, milk, sugar and tea. The household's 18 year-old daughter is partially paralyzed. The family doesn't know the reason and claim not be able to afford buying the necessary medicine or taking her to a specialist. They have opted to use the 1.5 million Russian roubles (\$241) of earnings that the eldest son has brought from Russia on repairing their home and on the expenses associated with their second son's upcoming wedding.

Kholbibibi (not her real name) is an 80 year-old female and head of a household made up of eleven people. They live in a three-bedroom house in a village 40km to the east of Khorog, the capital of Badakhshon. Five of Kholbibibi's grandchildren live with her, in addition to three of her sons with two of their wives. The household's main income is from one of the sons who works for the Aga Khan Foundation (AKF), the major international humanitarian agency operating in Badakhshan, and from a family business—a modest food store—that another son operates. He is 28 and used to live in Dushanbe prior to the civil war years. He is set to remain in Badakhshan. "I won't go back to live in Dushanbe again. I don't think it is a safe place," he says.

The household has 0.04 ha of land attached to its house. The household has also benefited from the land reform that has been taking place in Tajikistan, especially in Badakhshan, and were granted life-time use of 0.27 ha of irrigated land, formerly belonging to the local sovkhoz, as a private dehqan farm. They have sown 0.16 ha of the farm in wheat, 0.08 ha in potatoes and the rest in vegetables. Last year, they harvested 800kg of wheat, 2 tonnes of potatoes and 200kg of vegetables. The main farming constraint for the household is machinery for plowing and harvesting. The family harvests the wheat by hand. Last year, they sold one tonne of potatoes to the AKF, which in turn distributed it to needy households. When planting this year, the family used 100kg of wheat seeds and 200kg of potatoes from their own stock, and vegetable seeds from the AKF. They are obliged to return 10% of their harvest to the AKF in return for the help. Kholbibibi's household is relatively well off among others in their village. This is evident by the number of farm animals they own: 3 milk cows with calves, one bull and 4 goats. The family consumes a seemingly nutritious diet. In the past year, they slaughtered two bulls for their meat. On the average, each member consumes on a weekly basis, among other things, 5.5kg of bread, 550gr of rice, 1.1kg of potatoes, 550gr of meat, 1.3kg of yogurt, 0.3 liters of cooking oil, 1.3kg of fresh fruits and 300gr of sugar. Despite the apparent healthy diet, according to the daughter-in-law, three of the young girls suffer from mild anemia.

The household has a monthly income of TJR725,000 (\$874). Due to their large income, they are able to save and invest in business opportunities considerably. Despite their well-off position, the household receives in Kholbibibi's name modest amounts of flour, sugar and cooking oil every three months through an unspecified international organization. In addition, last year the AKF gave the household 150kg of flour, 50kg of cooking oil, 50kg of powdered milk and 100kg of beans. The household identified their main village problem as inadequate electricity.

members. Two percent (2%) are composed of 20 or more members. And two households among the 1,020 surveyed were found to be composed of 40 or more members.

Figure 18 depicts the reported number of families per household.¹⁰ According to the survey, on the average there are 1.7 families per household in Tajikistan. Kulob has the most number of families per household at an average of 1.9, and Dushanbe the least at 1.5.

Refugees & IDPs

Of the households surveyed, 19% reported at least one or more members having been refugees or internally displaced persons (IDPs) sometime after 1991. A total of 42 households or 4% of the survey population reported having been refugees outside of Tajikistan and 15% having been IDPs. The average amount of time spent as refugee or IDP was found to be 290 days or nearly 10 months. The most common time of departure was reported as October 1992 and the most common time of return as March 1993. Of the households who reported having been externally displaced (refugees), more than half had sought refuge in Uzbekistan. One-tenth of the formerly displaced households reported all or some members as not having returned since the time of displacement.

If our sample is taken to be an accurate representation of Tajikistan's population, it would be safe to posit that nearly 1 million people were displaced as a result of the 1992-93 civil war, either as refugees abroad or IDPs. The ethnic breakdown of the formerly displaced households is 75% Tajik, 20% Uzbek, 4% Turkmen and 1% Russian. A recent UNHCR study of the returnee population of Khatlon--where many households who had sought refuge in Afghanistan are from--found, among other things, that the returnee households of Khatlon are 98% ethnic Tajik. It also found that on the average returnee households are composed of 10 members, 21% larger than non-returnee households (Foroughi 1998).

For some, life as refugees with all its accompanying hardships seems better than living under the current depressed economy of Tajikistan. One head of household who had not found steady income since returning told us: "We were refugees in Afghanistan for six years. We regret having returned to our homeland." Most returnees, however, seem to be happy to have returned.

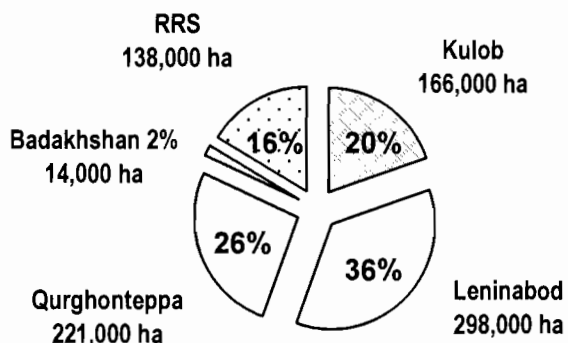
Agriculture: Background

Tajikistan's economy is dependent on agriculture with the far majority of the agricultural production (aside from cotton) consumed or sold locally. According to the IMF, close to 60% of the work force is employed in agriculture, and preliminary data on agriculture's share of GDP for 1997 is about 28% (IMF 1998). Officially, there are 837,000 hectares (ha) of arable land equivalent to 6% of Tajikistan's land mass (**Fig. 19** shows the distribution of arable land by region). The far majority of the arable land is located in the flood plains of the Kofarnihon, Vakhsh, Yakhsu and Ghizilsu rivers, all of which flow toward the *Amu Darya* (Oxus) and *Syr Darya* (Jaxartes) rivers--they being part of the Aral Sea basin. In addition to the cropland, there are an estimated 3.5 million ha of permanent pastures (World Bank 1994). With a fast growing population of 6.1 million (EIU 1998-a), Tajikistan has a comparatively and increasingly low per capita cropland (**Fig. 20**). Considering the estimated 70% rural population rate of the country and the reduction in post-independence industrial activity, wise use of agricultural lands has become all the more critical an issue.

The dissolution of the Soviet Union has brought about three major and contrasting agricultural trends to Tajikistan and much of the other former Soviet republics (Pallot 1995). First, having begun during Gorbachev's era, attempts have continued to be made in the restructuring of the agricultural sector with special emphasis on food production through land reform and the

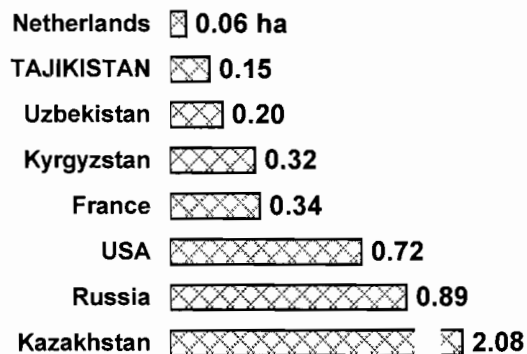
¹⁰ No specific definition of "family" was used when measuring this variable. Households were simply asked how many families (*o-ila* in Tajik) live within their household.

Fig. 19
Arable Land in Tajikistan
 (total = 837,000 hectares)



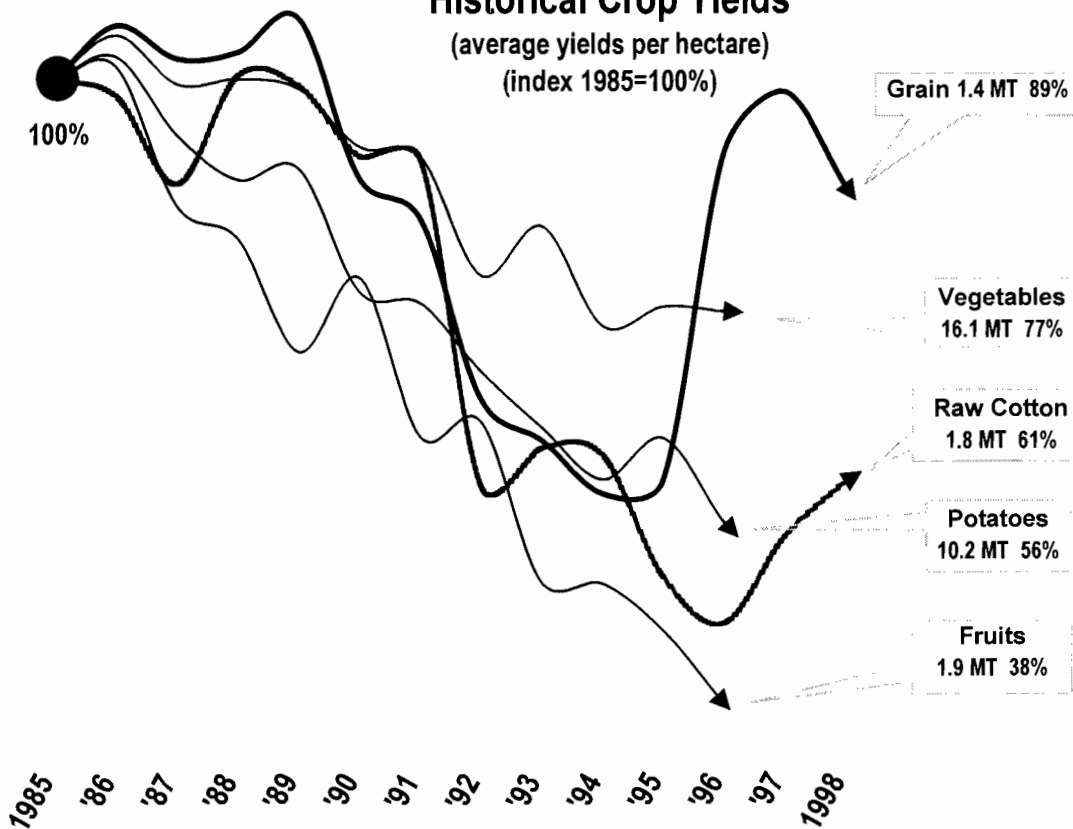
(Source: Azizkulov 1989)

Fig. 20
Comparative Per Capita Arable Land
 (hectares per person)



(Source: World Bank 1997)

Fig. 21
Historical Crop Yields
 (average yields per hectare)



(Sources: IMF, World Bank, State Statistical Agency of Tajikistan, UNFAO)

granting of increased local management on district, kolkhoz¹¹ and household levels. In Tajikistan, since 1995, an estimated 75,000 ha of land have been distributed to rural households—what are known as *presidential* lands. And similar to much of the rest of the former Soviet Union, a form of semi-privatized land use has been legislated, what is referred to as *peasant* or *dehqan* farm. By 1996, such private uses of agricultural lands were estimated to constitute 16% of Tajikistan's total arable land (IMF 1998), and by early 1998, they were estimated to be 25% of the whole. Increased private use of lands has caused a rise in the production and area sown to grain. By 1997, according to the UN Food and Agricultural Organization, the total area sown to grain had reached an estimated 400,000 ha with an accompanying production level of 600,000 MT. Production figures would have been higher if not for the unmaintained condition of harvesting machinery, lack of fuel and other agronomic and economic constraints. Post-harvest losses may amount anywhere from 12% to 25% of yields (WFP 1998).

Second, as a result of the breakdown in the provision of the means of agricultural production and lack of capital, all major crops have seen declines in their per hectare and—aside from grain—their overall yields (Fig. 21). Due to its role in the national economy, the most significantly felt reduction in output has been that of cotton. Whereas during 1987-91, raw cotton production averaged 880,000 MT annually (EIU 1998-b), by 1996, production had sunken by 65% to 312,000 MT. In 1997, a slight recovery was seen with cotton output reaching 358,000 MT. For 1998, cotton is estimated to yield on the average 1.8 MT per hectare (MT/ha), equivalent to 61% of its 1985 level. And third, an across the board reduction in livestock has been seen primarily due to the decrease in consumer buying power and shortages in animal feed (Pallot 1995).

Agricultural Lands

The surveyed households were asked about their present agricultural landholdings in the forms of home garden, presidential plot, *dehqan* farm, rented land and other possible types. It was found that the average area of agricultural land held per household in Tajikistan is 0.31 ha. It was further calculated that households in Kulob have, on the average, agricultural landholdings of 0.81 ha, in Leninabad 0.33 ha, in RRS 0.27 ha, in Qurghonteppa 0.22 ha and in Badakhshan 0.17 ha. While looking at the data, however, it was detected that the inclusion of large landholdings of at least the top 5% of households present a distorted picture of the average household agricultural landholdings in Tajikistan. For a more tangible view, calculations were performed on the bottom 95th percentile of households based on their landholdings (Fig. 22). Using this criteria, the average household landholdings for Tajikistan came to be 0.15 ha.¹² Looking at the bottom 95th percentile landholding households, the regional averages of household landholdings of our survey came to be: Leninabad 0.11 ha, Qurghonteppa 0.14 ha, Badakhshan and RRS 0.15 ha and a relatively large average area of 0.49 ha for households in the Kulob zone of Khatlon.

Figure 23 shows the distribution of household agricultural landholdings for Tajikistan as a whole and for rural and urban households separately. As depicted, 18% of households surveyed in Tajikistan were found to be landless—not even having small vegetable gardens. One-fifth (20%) was found to have agricultural landholdings of less than 0.05 ha. Another 13% was found to have agricultural landholdings of between 0.05 ha and less than 0.1 ha, 22% between 0.1 ha and less than 0.2 ha, 15% between 0.2 ha and less than 0.5 ha, 3% between 0.5 ha and less than 1 ha and 8.5% of the sample population was found to have agricultural landholdings of 1 ha or more. It can be concluded from the data that about half of the households (49%) in Tajikistan have agricultural lands

¹¹ Kolkhoz (collective farm) and sovkhoz (state farm) are Soviet-created agricultural entities. During the era of the USSR, the far majority of agricultural lands in all its 15 republics were divided among kolkhozes and sovkhozes. By 1991, there were a total of 362 sovkhozes, 206 kolkhozes and 19 "inter-enterprise farms" in Tajikistan (World Bank 1994). In line with the government of Tajikistan's privatisation efforts, kolkhozes and sovkhozes have been granted more autonomy and the option to become joint-stock companies or be divided into smaller units used by individual farmers or farming associations.

¹² The 1997 Echo food security survey found the average area of land used for food production by households in Tajikistan to be 0.17 ha.

Fig. 22
**Average Area of
 Agricultural Landholdings of Households**
 (bottom 95th percentile households)
 (n=969)

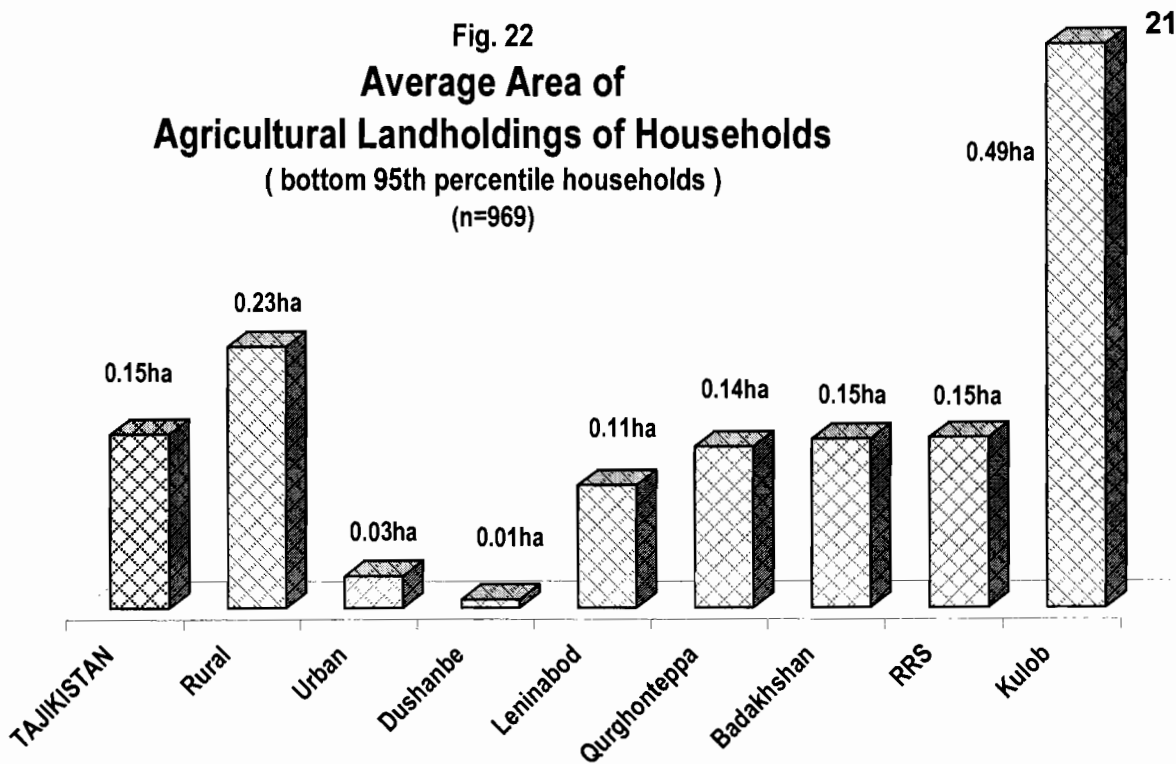
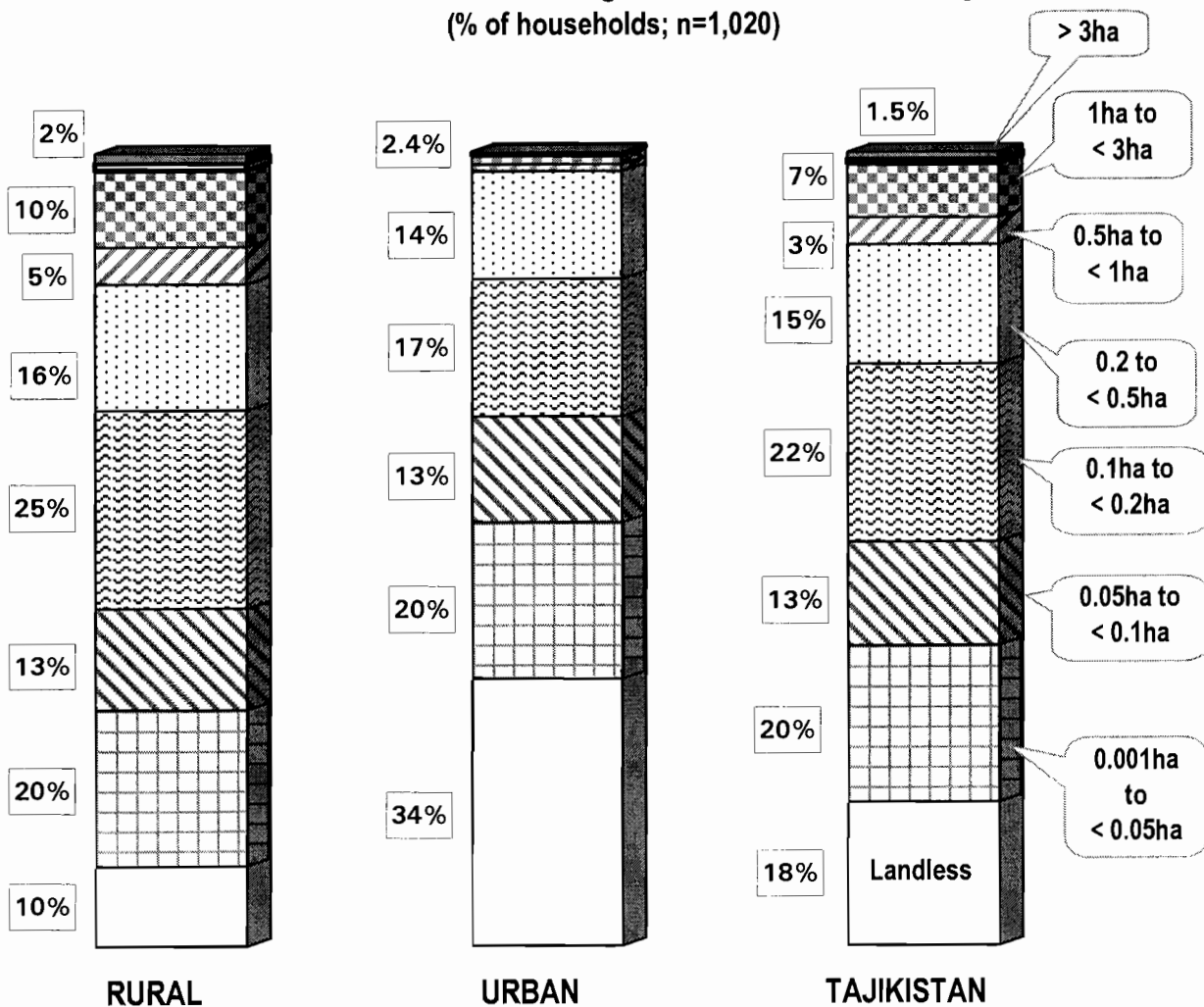
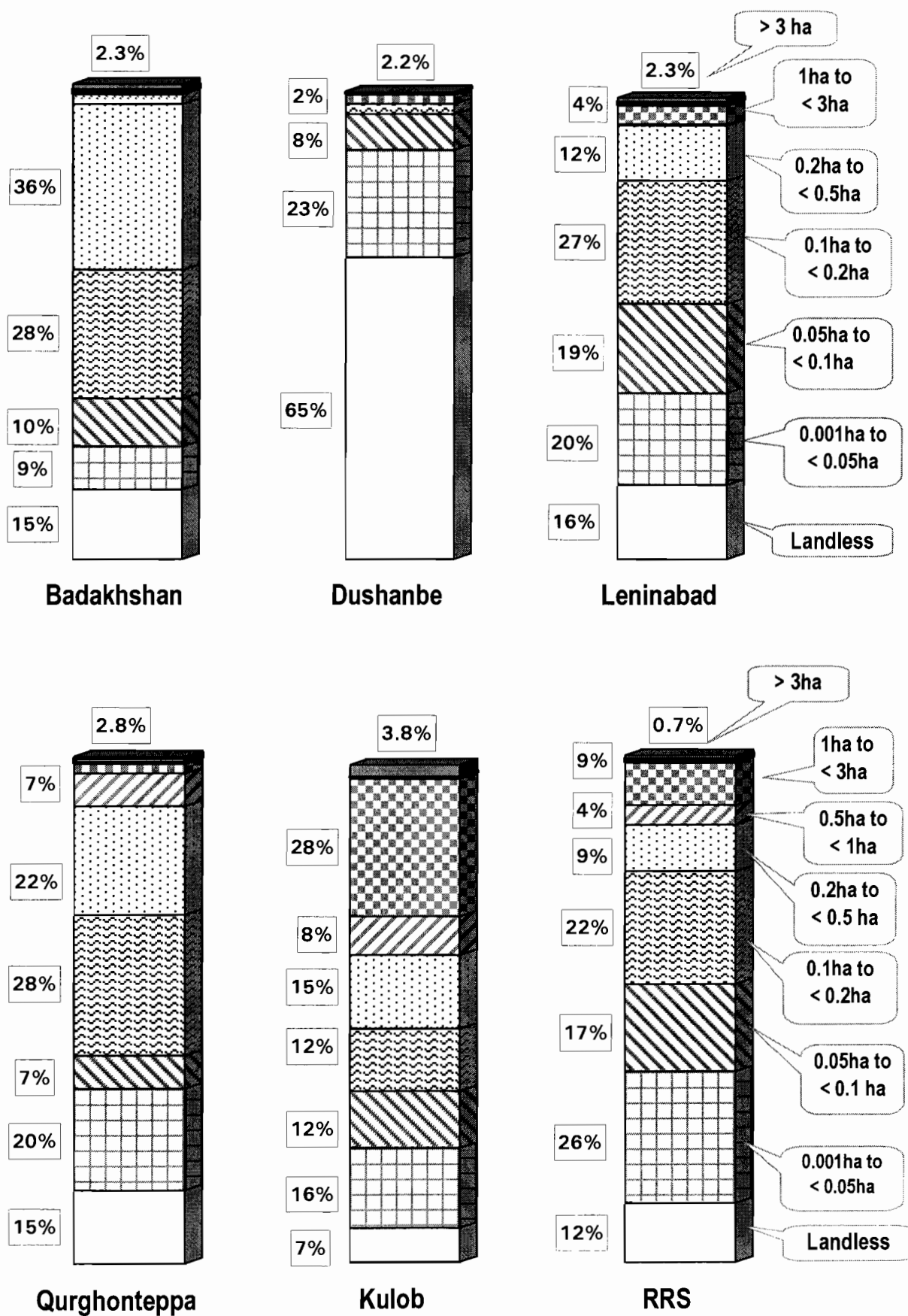


Fig. 23
Distribution of Household Agricultural Lands in Tajikistan
 (% of households; n=1,020)



Distribution of Household Agricultural Lands by Region

(% of households; n=1,020)



of 0.1 ha or larger and another half (51%) have less than 0.1 ha (including the 18% landless households).

Urban households naturally have access to less arable land. As depicted by Figure 23, about one-third (34%) of urban households have no agricultural lands and overall only one-third (33%) of urban households have access to 0.1 ha or larger of agricultural land. In contrast, only 10% of rural households claimed not to have access to any agricultural land and two-thirds (67%) said to have access to 0.1 ha or larger of agricultural lands. **Figure 24** depicts a similar distribution analysis of agricultural landholdings for each of the six regions surveyed.

Households were asked to describe each of their agricultural landholdings. They were asked about land type, i.e. whether land is home garden, presidential, dehqan, rental or other. They were asked whether their land is rain-fed, irrigated or pasture. And they were asked about the degree of slope of the land, whether it is flat, sloped or mountainous. As seen by **Figure 25**, the highest share of landholding among the survey population is that of rented land with 49% of total area of agricultural landholdings of the survey population in Tajikistan falling in that category. Next come both dehqan farm and home garden each with 18% of the total area of household agricultural landholdings, and then presidential plots at 10% of the total. The "other" category is land that does not fall into any of the listed categories and is commonly mountainous land that the household has independently sown mostly in rain-fed wheat or barley. An estimated 4% of the total area of household agricultural landholdings fall in this category.

There is a possibility that the category "rented" lands in our survey includes some presidential lands and dehqan farms as well. Due to the newness of these categories, some households may not have identified the exact legal definition of the land they are utilizing. Nevertheless, there is no doubt that rented lands, much of it in the form of sharecropping arrangements with kolkhozes (and sovkhoses) are common. Due to the heavy shortages of agronomic inputs and capital, many kolkhozes have assigned plots to their workers—and outside entrepreneurs—in return for a share of the harvest. Among the regions surveyed, Leninabad was found to have the highest rented lands at 60% of its total area of household agricultural landholdings.

The Qurghonteppa zone of Khatlon was found to have the most presidential landholding arrangements at 20% of its total area of household agricultural landholdings. Badakhshan stands out alone in that the only types of landholdings reported by its population were home garden and dehqan farm. Badakhshan has the highest proportion of home garden area relative to its total area of household agricultural landholdings and the highest proportion of dehqan farms constituting 65% of its total area of household agricultural landholdings. Households in Badakhshan did not report any presidential lands and only reported 0.5% of their total agricultural lands as rented.

According to World Bank statistics from 1990, irrigated lands constitute 83% of the total arable land in Tajikistan (World Bank 1997-b). Our survey found that 61% of the total household landholdings in Tajikistan are irrigated and 39% rain-fed (**Fig. 26**). The discrepancy is probably due to the fact that this survey was conducted on a household level and not on the kolkhoz-sovkhoz level, many of which specialize in cotton, an irrigated crop. Although kolkhozes and sovkhoses have allowed their lands to be used by households as rental or presidential plots, or even as life-long dehqan farms, based on our survey data, none of the surveyed households reported the cultivating of cotton on their land. (According to the National Association of Dehqan Farms of Tajikistan, however, a small number of dehqan farmers have been growing cotton.¹³) Our survey found that the region with the highest proportion of irrigated household agricultural landholdings is Qurghonteppa with 94% of lands being irrigated, and the region with the highest proportion of rain-fed lands is Kulob with 77% of its household agricultural landholdings being rain-fed.

¹³ Discussion with Mr Abdullo Sharipov of the National Association of Dehqan Farms, Dushanbe, October 1998. According to Mr Sharipov, the total registered area of dehqan farms is 155,000 ha, a small proportion of which grow cotton.

Fig. 25
Distribution of Household Agricultural Lands by Legal Type
 (n=1,020)

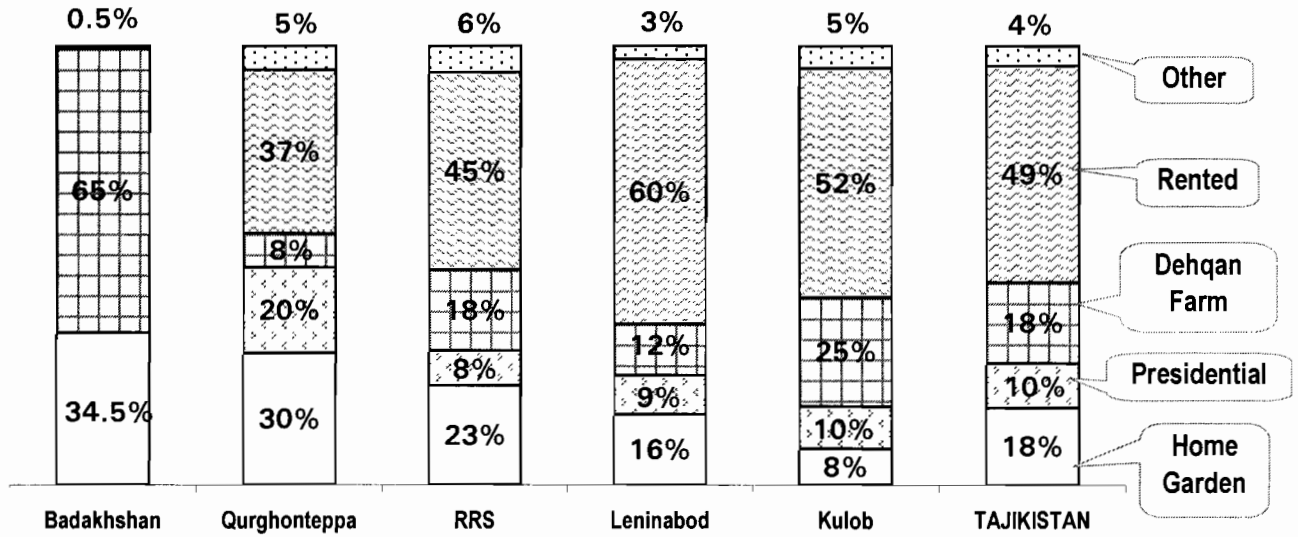


Fig. 26
Distribution of Household Irrigated, Dry and Pasture Lands

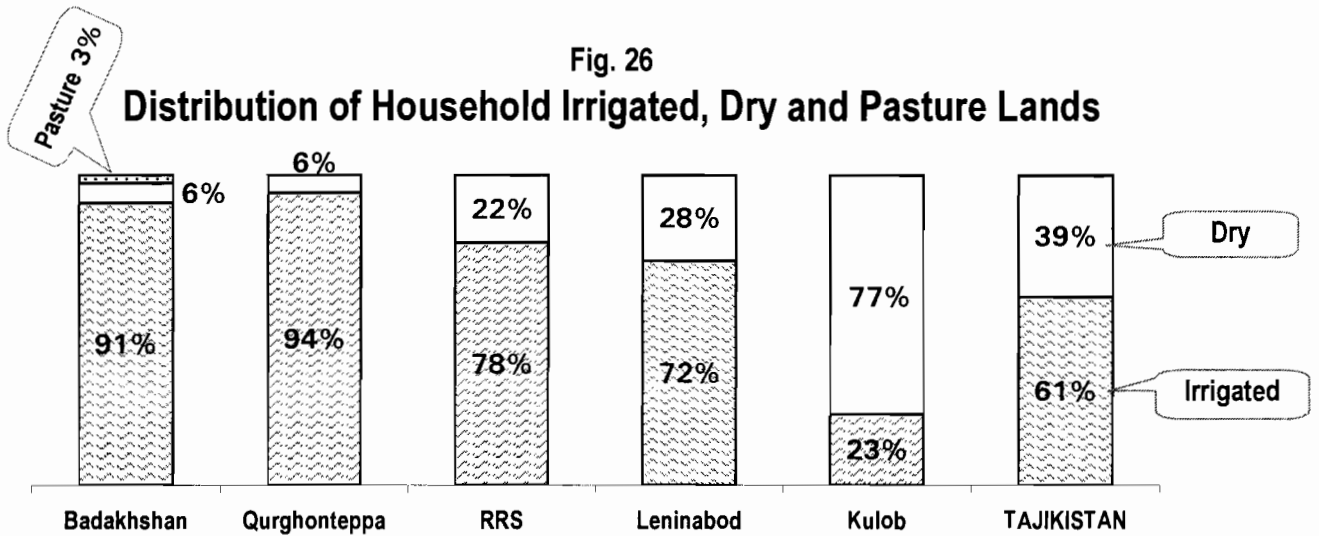


Fig. 27
Distribution of Household Agricultural Lands by Slope

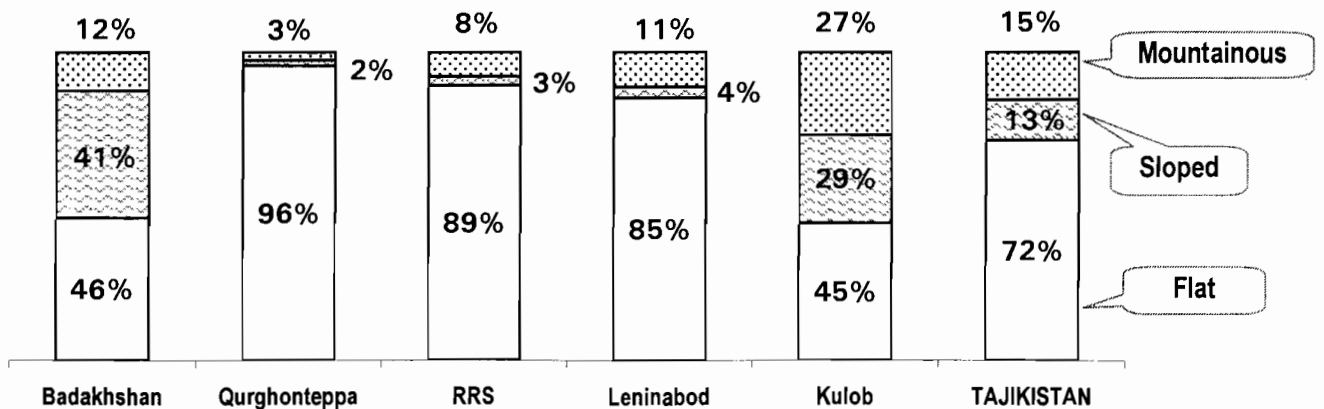


Figure 27 shows the household agricultural landholdings by slope. Based on our survey, the flattest regions are those of Qurghonteppa and RRS and the regions with the most sloped and mountainous household agricultural lands are Badakhshan and Kulob. It should be noted here that in all likelihood almost all the reported mountainous lands and some of the sloped lands have been cultivated only in the past several years, prior to which they were pastureland or even forest areas. On such newly cultivated sloped and mountainous lands, mainly rain-fed wheat is grown.

Survey results show that there have been major changes in the amount of access to land by the population. A total of 5% of households claimed to have lost access to agricultural land since 1991. Nearly half or 48% of the households reported having had no change in their agricultural landholdings and 47% of the households saw an increase in their agricultural lands. **Figure 28** depicts the results of this inquiry. As can be seen, 8% of the households reported having gained less than 0.05 ha of agricultural land, 12% between 0.05 ha to less than 0.1 ha, 10% between 0.1 ha to less than 0.2 ha, 7% between 0.2 ha to 0.49 ha and 9% of households reported having gained half-a-hectare (0.50 ha) of land or more since 1991.

To measure the extent to which land distribution among households deviates from a perfect distribution, a function known as the *Gini index* was utilized. For our purposes we will call it the Gini Land index.¹⁴ Theoretically speaking, if agricultural lands were perfectly distributed among households of a region, that is, if all households had the same amount of land, then the Gini Land index would equal 0%. Likewise, in case of a region of perfect inequality, the Gini Land index would equal 100%. The index for the 1,020 households of our survey, that is, for Tajikistan as a whole came to be 78%. **Figure 29** plots the necessary charts for the depiction of the Gini Land index for the six regions surveyed. Badakhshan has the least imperfectly distributed household landholdings (Gini Land index of 46%) followed by Qurghonteppa (Gini Land index of 65%). The regions with the most imperfect household landholding distribution are Dushanbe (Gini Land index of 92%) followed by Leninabad (Gini Land index of 82%) and RRS (Gini Land index of 74%).

Presidential Land-holding Households

The survey, among other things, attempted to shed light on the new forms of landholdings in Tajikistan, such as presidential lands and dehqan farms. Utilizing the collected data, some common characteristics among households with each type of landholding were seen. For example, when conducting statistical crosstabulations on presidential land-holding households vs. non-presidential land-holding households, the following significant outcomes were found (z-tests at $\alpha = 0.10$):

- Overall, 21% of the survey population reported having presidential land;
- A lower proportion of presidential land-holding households is female-headed (12%) as compared to other households (20%); and a lower proportion of presidential land-holding households is ethnic Tajik (69%) as compared to other households (80%);
- Presidential land-holding households are larger with an average of 10.0 members per household vs. 7.7 members for other households;
- Regarding the household's total agricultural landholdings (presidential, home garden, dehqan and other), presidential land-holding households have on the average 81% more agricultural land as compared to other households (0.49 ha vs. 0.27 ha);
- Presidential land-holding households had more land (64% more) as compared to others in 1991 as well (0.085 ha vs. 0.052 ha). Since 1991, presidential land-holding households gained on the average 0.40 ha of agricultural land vs. 0.22 ha for others;

¹⁴ Gini index is normally used to measure income distribution among a population. It can "provide a convenient summary measure of the degree of inequality" (World Bank 1997-b, p. 254). For the purposes of our survey, it was posited that a *Gini Land index* could measure the distribution patterns of agricultural lands among the surveyed households, thereby providing a summary measure of the degree of household landholding inequality for given regions. The more imperfect the distribution, the higher the Gini Land index.

Fig. 28
Changes in Agricultural Landholdings of Households
Since 1991

(% of households; n=1,020)

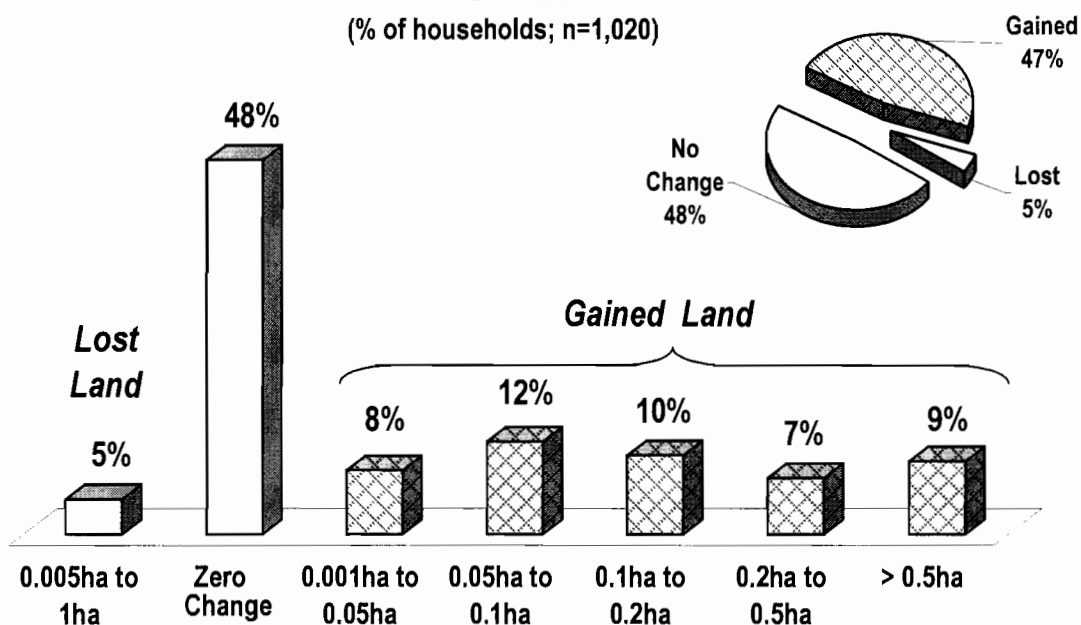
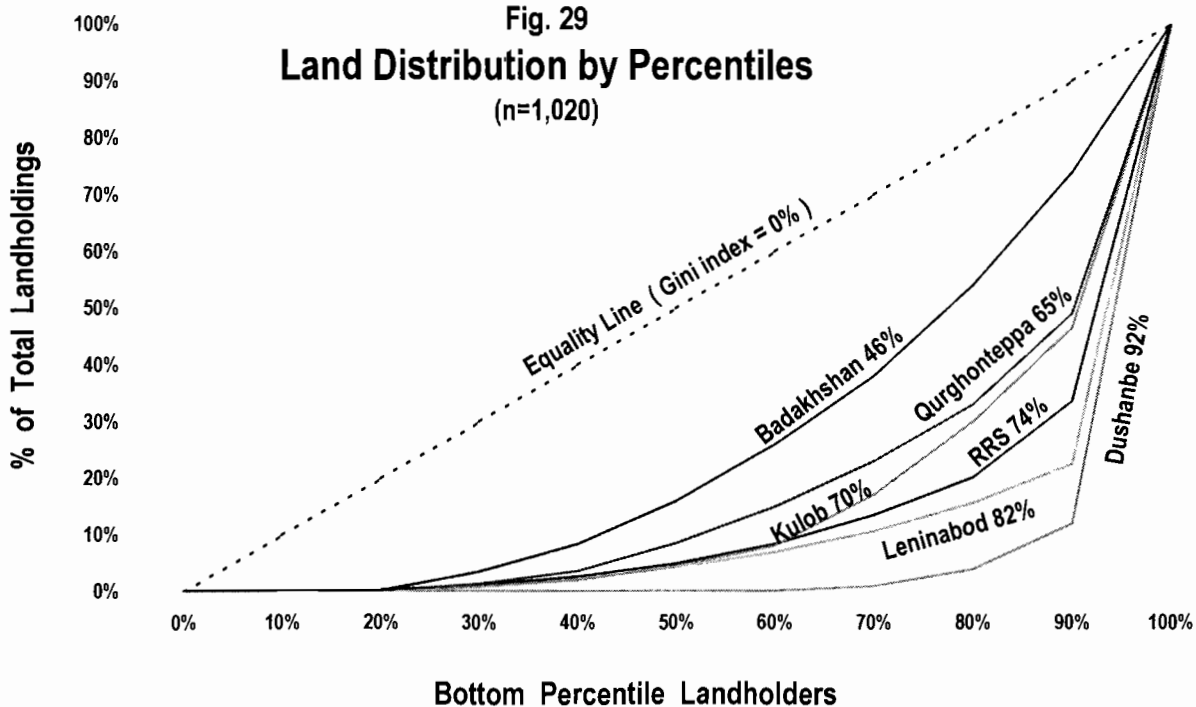


Fig. 29
Land Distribution by Percentiles
 (n=1,020)



- ☑ Though a lower proportion of presidential land-holding households (7%) also has dehqan farmland compared to others (13%), those who do have dehqan farmland, have on the average larger areas than non-presidential land-holding dehqan farmland-holding households (0.95 ha vs. 0.43 ha);
- ☑ A larger proportion of presidential land-holding households (72%) has cows compared to other households (45%). On the average, presidential land-holding households have 1.3 cows per household vs. 0.7 cow for others. A larger proportion of presidential land-holding households also has sheep and poultry and more of them as compared to other households;
- ☑ A higher proportion of presidential land-holding households (20%) has at least a donkey or horse and bicycles (11%) vs. other households (12% of whom have at least a donkey or horse and 6% have bicycles);
- ☑ A higher proportion of presidential land-holding households (51%) consumes mixed flour vs. other households (27%);
- ☑ A higher proportion of presidential land-holding households (44%) receives humanitarian aid vs. other households (37%);
- ☑ A higher proportion of presidential land-holding households is food secure (76% vs. 66% for others) and food adequate (77% vs. 71% for others);
- ☑ There is no significant difference between the household expenses or income of presidential land-holding households and those of other households.

Dehqan Farm-holding Households

When conducting statistical crosstabulations on dehqan farmland-holding households vs. non-dehqan farmland-holding households, the following significant outcomes were found (z-tests at $\alpha = 0.10$):

- ☑ Overall, 12% of the survey population reported having dehqan farmland;
- ☑ A higher proportion of dehqan farmland-holding households are ethnic Tajik (90%) as compared to other households (76%);
- ☑ Regarding their total agricultural landholdings (home garden, presidential, dehqan and other), dehqan farmland-holding households have on the average 121% more agricultural land compared to other households (0.61 ha vs. 0.28 ha);
- ☑ Dehqan farmland-holding households had more land (31% more) compared to others in 1991 as well (0.074 ha vs. 0.057 ha). Since 1991, dehqan farmland-holding households gained on the average 0.53 ha of agricultural land vs. 0.22 ha for others;
- ☑ A lower proportion of dehqan farmland-holding households (13%) also has presidential lands (average of 0.026 ha per household) compared to 22% for other households;
- ☑ A larger proportion of dehqan farmland-holding households (75%) has cows vs. other households (47%). On the average, dehqan farmland-holding households have 1.4 cows per household vs. 0.8 cow for others. A larger proportion of them also has sheep, goats and poultry and more of them as compared to other households;
- ☑ A higher proportion of dehqan farmland-holding households (19%) has at least a donkey or a horse compared to 13% for other households;
- ☑ A higher proportion of dehqan farmland-holding households (66%) receives humanitarian aid vs. other households (35%);
- ☑ A higher proportion of dehqan farmland-holding households (80%) is food adequate as compared to others (71%);
- ☑ There is no significant difference between the household expenses of dehqan farmland-holding households compared to others, but when household income is calculated (humanitarian aid included), dehqan farmland-holding households are found to have on the average 18% higher monthly income (\$73) as compared to other households (\$62).

Saodat is 58 and the head of a household comprised of her two sons, her daughter-in-law and four grandchildren. They live in the village of Chaharshanbe in the Shahritus district of Khatlon province. During the civil war of 1992-93, Saodat lost her husband and two sons. She is now the legal guardian for two of her grandchildren who lost their father to the war and whose mother died of an illness a few years later. Saodat, her son and daughter-in-law work in the kolkhoz where they receive modest amounts of wheat as in-kind wages for picking cotton. They are allotted some cotton bush as well, which they use as fuel especially during winter when the village can be without electricity most of the time.

The household spent two years in Northern Afghanistan as refugees. When they returned to Tajikistan in 1994, they found their house fully destroyed and their belongings stolen or burnt. Much of their home still remains in ruins. And although they have restored the walls and secured roofing for two rooms, there are empty spaces where doors and windows used to exist. Two of Saodat's grandchildren attend school. They do so barefoot and without appropriate clothing. The lack of shoes and warm clothing in conjunction with no heating in the school forces Saodat to keep the children at home during winter.

The household has 0.1 ha of land attached to their home. They've also rented 0.08ha from the kolkhoz. The major crops grown on their two plots of land are wheat and corn. Last year they harvested 400kg of wheat and 200kg of corn, 65kg of fruits and minimal amounts of vegetables. The household spent an equivalent of TJR20,000 (\$24) on the land as inputs. They also paid 100kg of wheat as in-kind rent to the kolkhoz. Saodat claims that the main agricultural constraints facing them are insufficient land and due to the shortage of funds, the lack of farm animals. Whereas in 1991, the household had 2 milk cows with two calves and 10 chickens, today they have no farm animals.

The bread that Saodat's household consumes is made half-and-half of wheat and corn. They consume on a weekly basis, among other things, 25kg of wheat flour, 25kg of corn flour, 12kg of potatoes, as much as 3 liters of milk (mostly donated by neighbor), 0.5kg of sugar and 200gr of tea—made of wild herbs collected by the household. The last time Saodat and her family consumed meat was 6 months ago. Saodat's household is afflicted by various health problems: two members suffer from kidney ailments, two from anemia and two from goiter. The household can not afford to see a doctor or buy medicine to cure the ailments. Their water source is the village stream. They do not boil their drinking water to economize on firewood.

Saodat has one son in Russia. "I wish he could at least take his wife and daughter with him," she said. "As is, he does not send any money and I'm responsible for the survival of his family." The household has reported expenditures of TJR4,400 (\$5.3) per month. Although the household does benefit from food aid, Saodat claims that in the last 12 months, they have only received a total of 30kg of flour and 4 liters of cooking oil. And her grandchildren receive one meal a day while attending school through Save the Children's school feeding program. She claims that the main problem facing her village is hunger. Saodat would like to see more humanitarian assistance, if not for her, at least for her two orphan grandchildren.

Kamolboy is 20 years old and lives with his mother, two sisters and brother in the village of Azod in the district of Qubodion in the Qurghonteppa zone of Khatlon province. Kamolboy and his mother are both kolkhoz workers. In 1995, the family received 0.1 ha of presidential land where they grow wheat. They also grow vegetables, potatoes and forage in the 0.1 ha of kitchen garden attached to their house. Last year, from both plots combined, they received an estimated 100kg of potatoes, 70kg of vegetables and fruits and 900kg of wheat. The family consumes all of their agricultural produce itself. Other than their own produce, Kamolboy and his mother receive minimal amounts of wheat in exchange for picking cotton for the kolkhoz, totaling enough wheat last year worth about TJR40,000 (\$48) or an income of \$4 per month. The household has a milk cow that serves as a source of dairy food. Kamolboy claims that if there were tractors and combines available, they and other households in the village could grow more food. "We can only feed our kids bread and tea during the day. The rest of the daily reserve, if any, we leave for the evening meal," said Kamolboy's mother. It's been a long time since the family had consumed meat. Lack of proper nutrition and low income may be a reason behind the high death rate from malaria in Kamolboy's village. Recently, the household sold one of its few possessions, the family's native mattresses (*kurpocha*) to buy medicine for treating Kamolboy's mother and little sister, both afflicted with malaria.

Yields

Households were asked about their agricultural yields. Those who had not yet harvested their fields this year were asked about the previous year's yields. The unusually cold spring of 1998, along with above average precipitation have damaged some of the cereal crops. This is expected to negatively influence overall yields. According to Care International, 1998's wheat crop has suffered from smut and rust infections. Care's preharvest surveys in Leninsky district where it has a major agricultural project indicate yields to be an estimated 10% lower than 1997--2.0 vs. 2.2 MT/ha.¹⁵ Based on our survey, the average wheat yield for Tajikistan was calculated to be 2.5 MT/ha (households who reported having "no yields" were excluded from the average). Households in the Qurghonteppa zone, which has the highest proportion of irrigated land among the regions surveyed, reported the highest wheat yields at an average of 3.0 MT/ha. And households in the Kulob zone, which has the highest proportion of dry land among the regions surveyed, reported the lowest wheat yields at 1.5 MT/ha (**Fig. 30**).

The survey found the average corn yield reported for Tajikistan to be 2.5 MT/ha and the average potato yield at 8.8 MT/ha. Many households reported cultivating corn as a forage crop. Some reported not harvesting their corn fields and letting the animals graze the land. Among the regions surveyed, Badakhshan and Kulob had respectively the highest and lowest average corn and potato yields. Average rice yield was found to be 4.5 MT/ha with RRS having the highest.¹⁶

Households were also asked about their agronomic inputs. Only a bit more than a-third (36%) of landholding households reported applying fertilizer to their land, 11% reported using pesticides, 2% herbicides and 2% reported using veterinary services. As depicted by **Figure 31**, the main source of wheat, potato and corn seeds was reported as the local bazaar. Five percent of the respondents reported humanitarian aid as the source of their wheat and potato seeds (practically all of those households are in Badakhshan). A bit more than one-fourth of the landholding households reported using tractor for plowing the land. Of that figure, 7% reported using their own tractor. Others reported using the kolkhoz tractor (41%) or renting one from friends or neighbors (27%) and the market (26%).

The top four farming constraints (**Fig. 32** and **Fig. 33**) in Tajikistan were identified as being insufficient land (25%), lack of machinery (18%), lack of or insufficient irrigation (16%) and landlessness (16%). Other constraints cited were lack of fertilizers (6%), insufficient labor (4%) and insufficient funds (4%).

One-fifth (20%) of the households surveyed throughout the country reported selling part of their agricultural produce (**Fig. 34**). The main produce reported being sold were fruits, vegetables, potatoes, wheat, tobacco and dairy products. Most (60%) reported selling their produce wholesale. One-quarter of the households reported a female member selling their produce.

Households were also asked the number of fruit and non-fruit trees they have. On the average in Tajikistan, households reported having 11.8 fruit trees and 3.7 non-fruit trees per household. RRS reported having the most number of fruit trees at an average of 15.4 trees per

¹⁵ According to Care, the market price for wheat in Tajikistan has fallen this year by 15%. It reports an average price of \$175 per tonne for the months of May to September this year vs. \$205 per tonne for the same period last year. (These prices are presumably from the RRS and Dushanbe regions.) Based on this change, Care claims that for many farmers the growing of wheat may have become unprofitable (*Care International [Newsletter]*--Tajikistan, Sept. 1998). Care is assisting as much as 7,000 private farmers in the Leninsky district through the channelling of agronomic inputs to 63 small farmers associations representing an estimated 5,500 ha of arable land.

According to the UNFAO representative in Dushanbe, this year's floods and landslides have damaged as much as 15,000 ha of land planted to cereals alone. They have also damaged roads, making delivery of agricultural inputs difficult. In addition, due to the abundant grain harvest of 1997, some farms have given priority to cotton this year. These factors, claims the UNFAO, are expected to reduce the overall grain yields in 1998 by a conservative estimate of 14% culminating in a total grain production of 514,000 MT harvested in an area of about 370,000 ha.

¹⁶ The yields quoted in this survey should be treated with caution since they are merely the reported estimates of households. Agronomic field analysis, which is required for conclusive reporting of crop yields was not performed by this survey.

Fig. 31
Sources of Selected
Agronomic Inputs
 (% of responses)

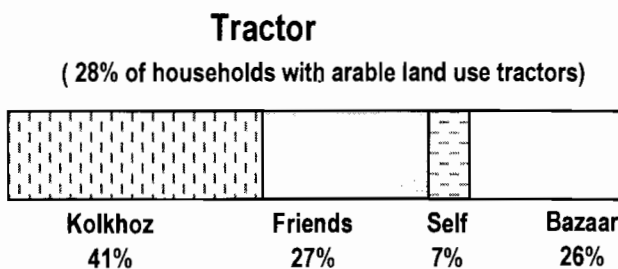
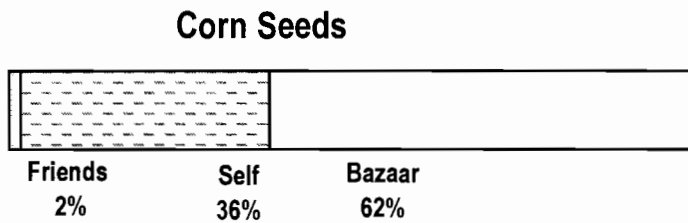
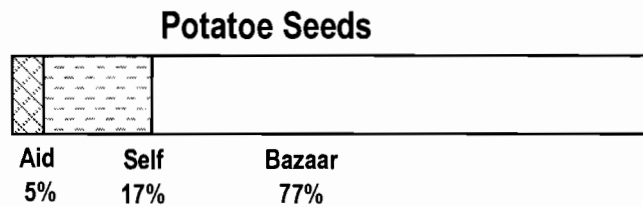
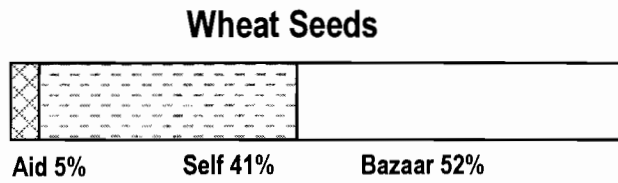


Fig. 30
Average Household
Agricultural Yields
 (metric tonnes / hectare)

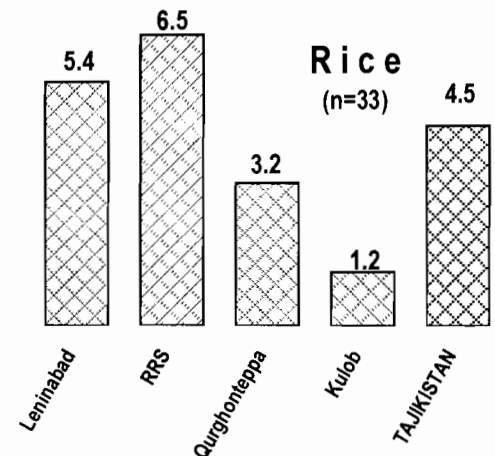
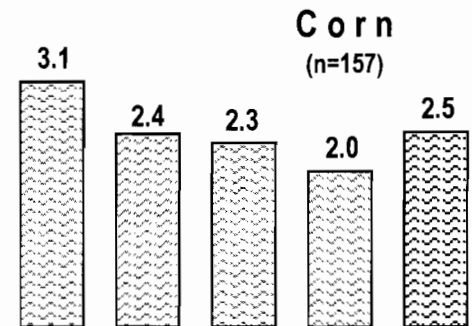
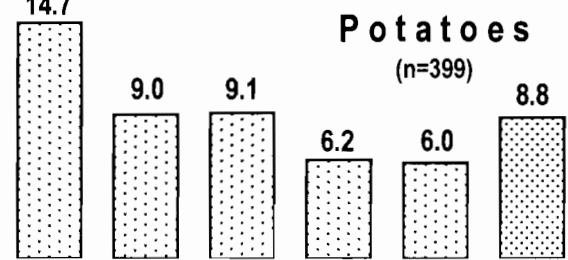
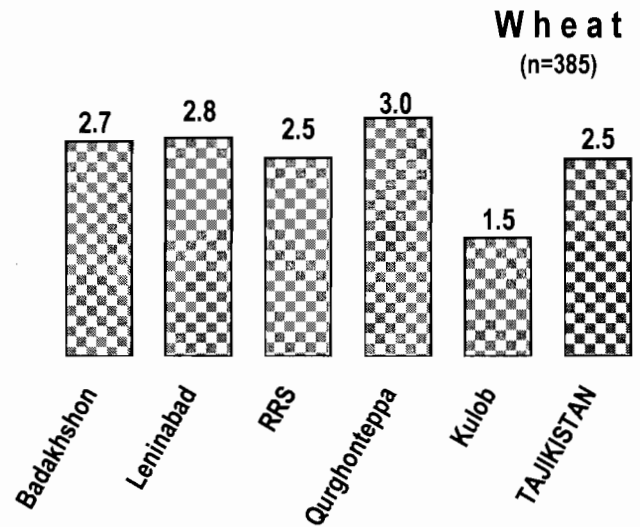


Fig. 32

Farming Constraints by Region

(top four household responses; n=952)

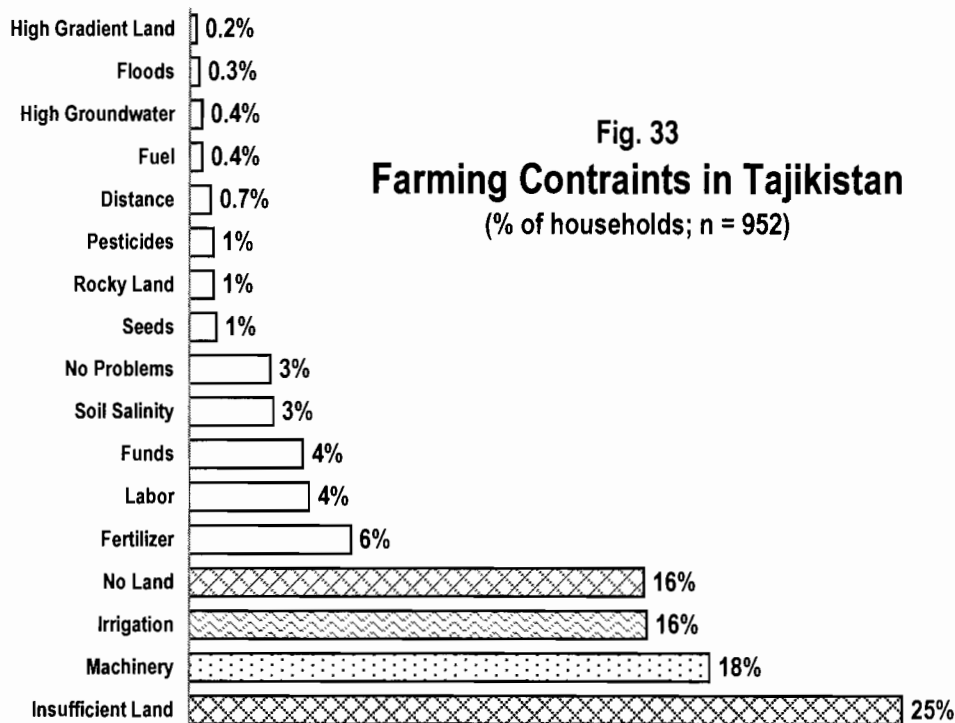
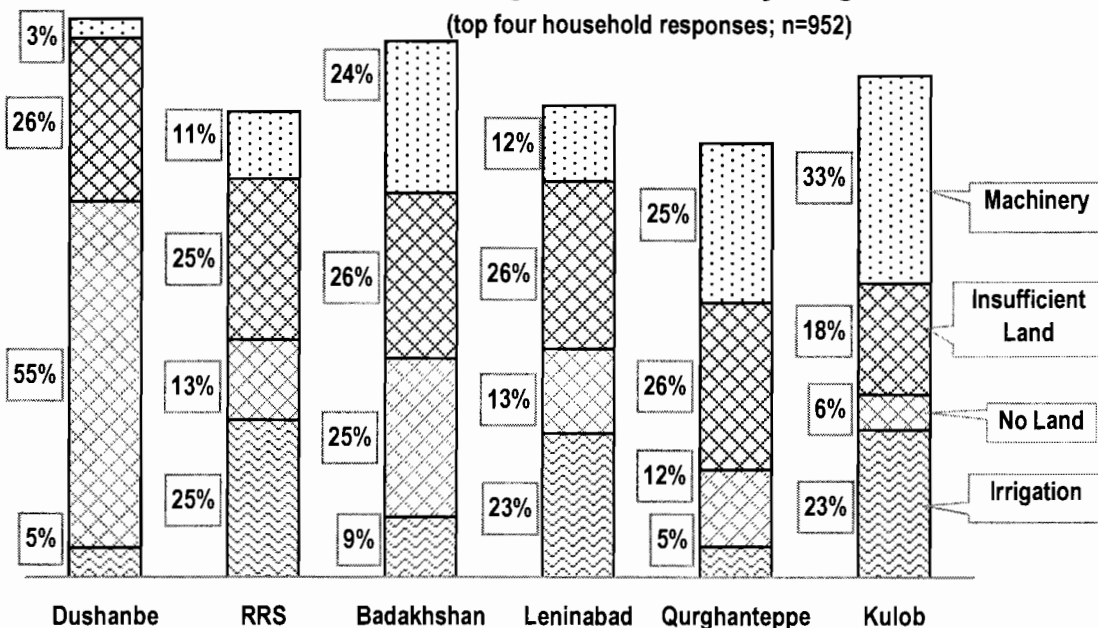


Fig. 33

Farming Constraints in Tajikistan

(% of households; n = 952)

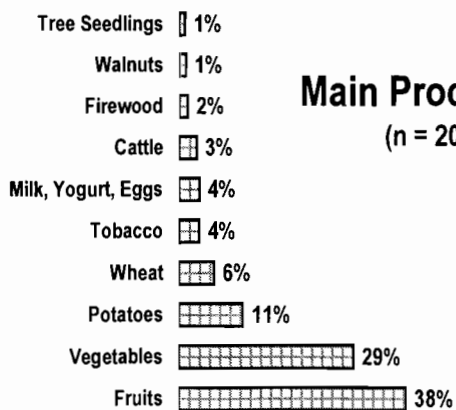


Fig. 34

Main Produce Sold by Households

(n = 201=20% of survey population)



household. Other regional average number of fruit trees were: Badakhshan 13.9 trees, Qurghontepa 13.0, Kulob 12.8, Leninabad 10.4 and Dushanbe 4.1 fruit trees per household. With regards to non-fruit trees, Badakhshan reported the highest at an average of 16.3 per household. Other regional averages of non-fruit trees held were: Kulob 5.2 trees, Leninabad 2.7, Qurghontepa 2.1, RRS 1.4 and Dushanbe 0.2 non-fruit trees per household.

Farm Animals

Save the Children's 1995 survey found the average possession of household farm animals with their reported reduction from 1990 to be: 1 milk cow per household (-62% change since 1990), 0.7 bull (-59%), 2.8 sheep (-68%) and 2.3 heads of poultry (-74%) (Birkenes 1996). The State Statistical Committee reports total farm animals in Tajikistan were reduced from 4.9 million heads in 1991 to 3.4 million in 1996, a 30% reduction (IMF 1998). The Statistical Committee further reports the change in the number of collective- and state-farm animals from 1997 to 1998 as a 9% reduction in the population of cows which stand at an estimated 162,000 heads in 1998, and a 13% reduction in the number of sheep and goats which are reported as being approximately 756,000 heads (State Statistical Committee 1998). The government figures, however, seem to report only farm animal numbers for kolkhozes and sovkhoses and not those of households.

Our survey confirms the general trend of reduction of farm animals since 1991. Households, on the average, reported having less than half the number of farm animals they held in 1991. As shown by **Figure 35-a**, based on our survey, on the average, each household in Tajikistan holds 0.9 cow, 0.8 sheep, 0.6 goat and 1.2 heads of poultry. Surprisingly, the most number of animals per household was reported in Badakhshan where, on the average, households possess 1.3 cows, 2.1 sheep, 2.1 goats and 0.9 head of poultry. Milk cows constitute about 86% of the total number of cows. Overall, about half of the total sample population in Tajikistan reported owning milk cows or bulls (**Fig. 35-b**). One-third (35%) have 1 cow (many with a calf), 9% have two cows, 4% three and 2% have four or more cows. The overall population of cows held by the surveyed households was reported as having dropped by 57% from 1991. (A 51% drop is registered when calculating the average reduction in cows per household).

Statistical crosstabulations were conducted on households that own at least one cow (50% of survey population) against those that own none. The following significant tendencies were found (z-tests at $\alpha = 0.10$):

- A higher proportion of cow-owning households is rural (83%) as compared to non-cow-owning households (48%);
- Cow-owning households have on the average nearly 5 times more agricultural land compared to non-cow-owning households. On the average, they have 0.52 ha of agricultural land per household compared to 0.11 ha for non-cow-owning households;
- In 1991, currently cow-owning households had more cows than currently non-cow-owning households (3 cows vs. 1 cow). And in 1991, currently cow-owning households had 84% more land than currently non-cow-owning households. Since 1991, currently cow-owning households have gained on the average 0.44 ha of agricultural land vs. 0.07 ha for others;
- A larger proportion of cow-owning households also has at least one sheep or goat as compared to non-cow-owners (45% vs. 12%). On the average, cow-owning households have 2.4 sheep and goats vs. 0.3 for non-cow-owners. A larger proportion of cow-owning households also has poultry (34% vs. 13% for non-cow-owners) and more of them (1.8 heads of poultry per household vs. 0.6 for non-cow-owners);
- Only 10% of cow-owning households are headed by women vs. 21% of non-cow-owning households;
- Cow-owning households are on the average larger (9.6 members) than non-cow-owning households (6.8 members);

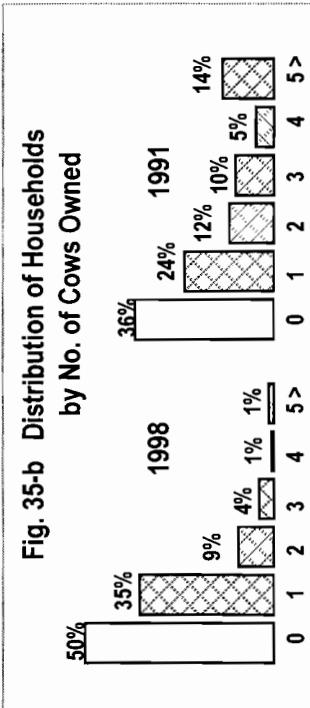
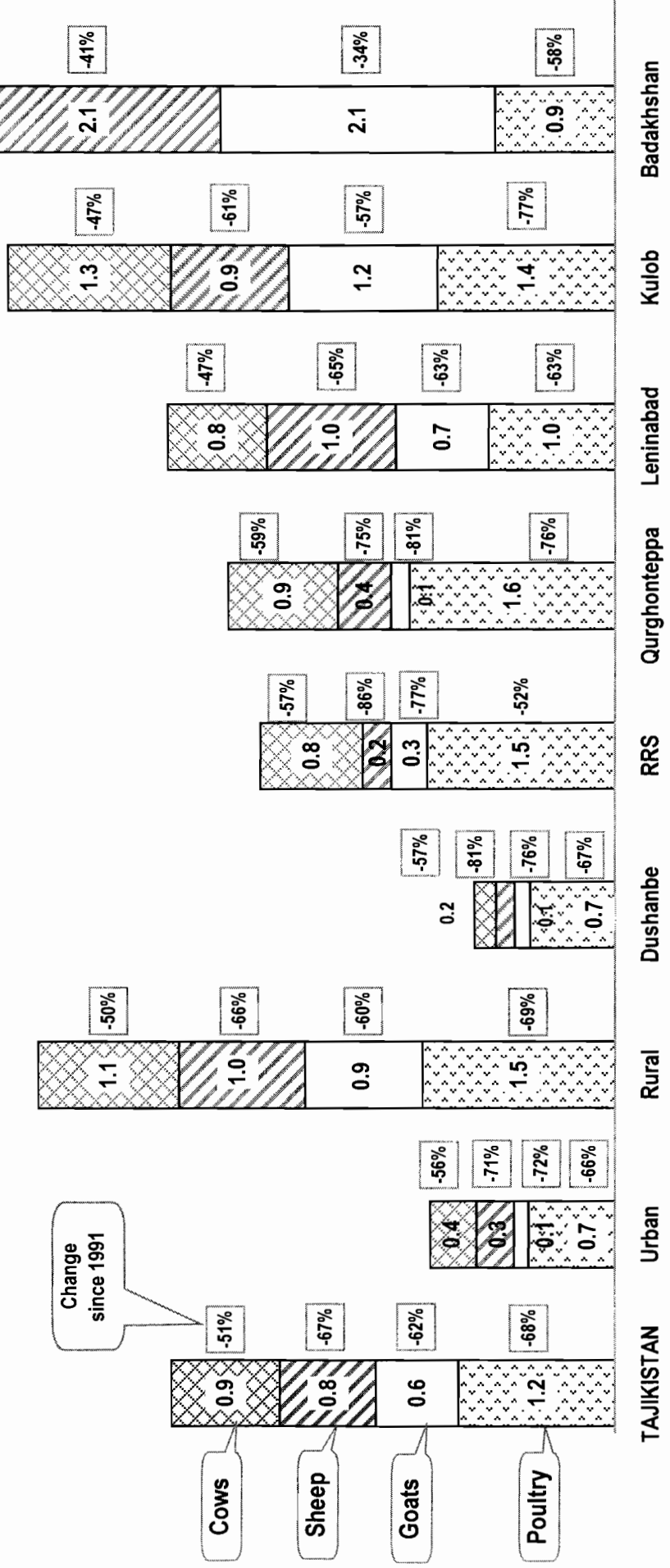


Fig. 35-a Average Number of Farm Animals per Household (n=1,020)



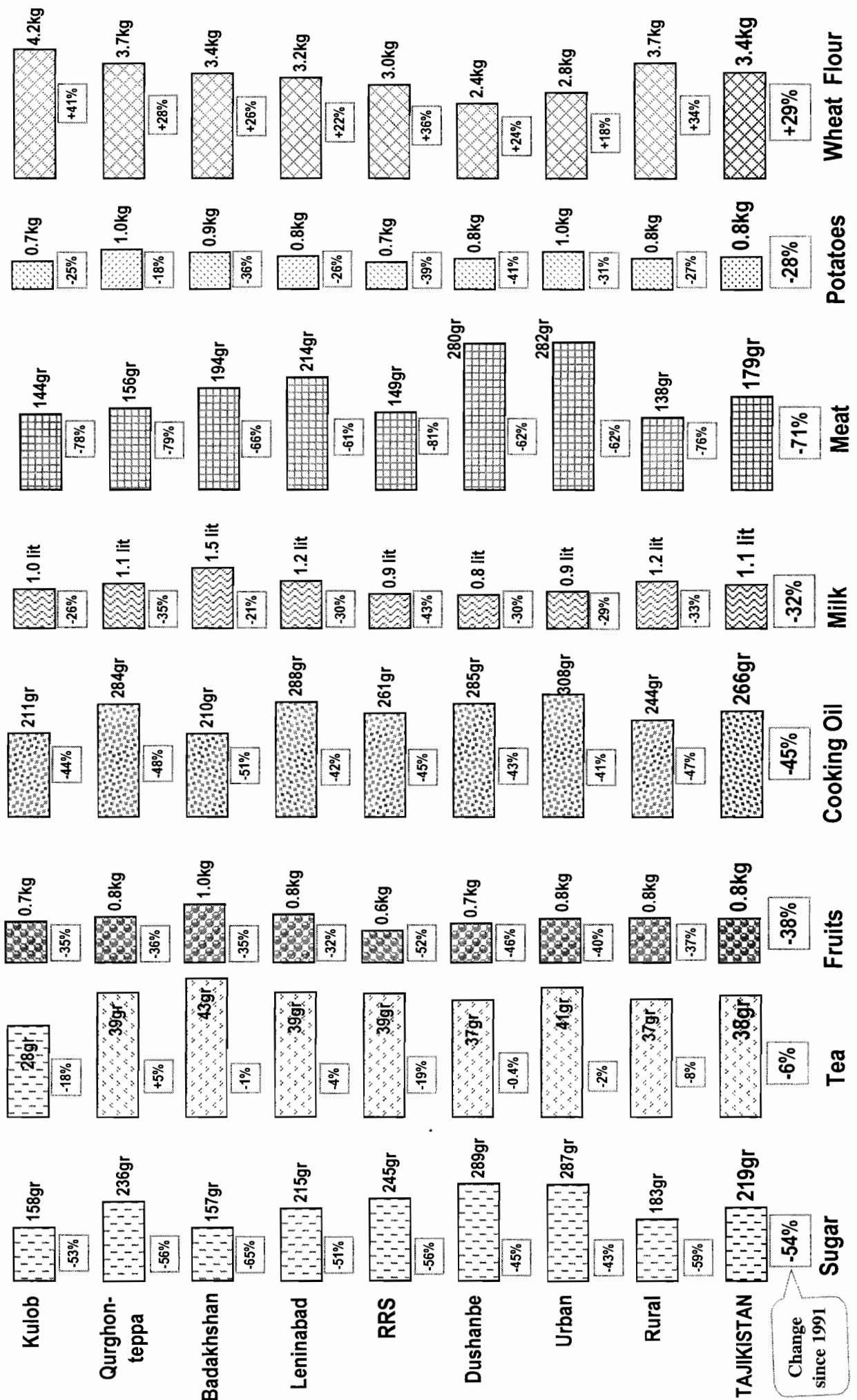
- ☑ A larger proportion of cow-owning households has fruit trees (94% vs. 66%) and more of them as compared to non-cow-owners. Cow-owners have on the average 16 fruit trees per household vs. 7 fruit trees for non-cow-owners;
- ☑ A lower proportion of cow-owning households sold household goods in the past year as compared to non-cow-owners (20% vs. 38%);
- ☑ A larger proportion of cow-owning households receives humanitarian aid (43%) as compared to non-cow-owners (34%). Among the aid receivers, cow-owners receive about 50% more aid per household as compared to non-cow-owners: aid-receiving cow-owners received about TJR6,750 (\$8.1) of humanitarian aid per month compared to TJR4,540 (\$5.5) for non-cow-owning aid receivers;
- ☑ Cow-owning households are more optimistic about their food situation for the next six months, with 40% thinking that the food situation would improve compared to 36% for non-cow-owners;
- ☑ A higher proportion of cow-owning households consumes mixed-flour compared to non-cow-owners (39% vs. 24%);
- ☑ A higher proportion of cow-owning households is food secure (73% vs. 63%) and food adequate (78% vs. 66%) as compared to non-cow-owners;
- ☑ Cow-owning households have 13% more expenses and 16% more income as compared to non-cow-owners. Cow-owners have on the average monthly expenses of TJR59,918 (\$72) and monthly income of TJR56,468 (\$68) per household.

Households were asked if they had sold or slaughtered any animals during the past year. About 15% of the households reported having slaughtered at least one animal and 22% reported having sold at least one. Of those households, the main reasons given for selling or slaughtering of animals were: to acquire food (62%), to purchase clothing (10%), to cover religious ceremony expenses (9%) [usually remembrance of the deceased], to cover wedding expenses (9%) and to cover medical expenses (4%). Three percent (3%) of the respondents reported having sold or slaughtered their animal due to the animal's illness. And 2% reported having sold an animal to purchase another. Of the households who sold or slaughtered their animals in the past year, 10% reported replenishing their animal stock through purchasing of at least one cow, sheep or goat. A larger number of households supposedly replenished their stock through newly born animals. All households were asked to identify their main constraint in animal husbandry (**Fig. 36**). Major responses were: insufficient animal feed (62%), insufficient space (23%), insufficient funds (7%), no problem (4%), insufficient labor (0.6%), lack of veterinary help (0.5%) and theft (0.2%).

Food Consumption

Households were queried about their weekly consumption of wheat flour, potatoes, meat, milk, cooking oil, fresh fruits, tea and sugar. They were also asked to give estimates of weekly consumption for the same food items prior to the war, that is, for 1991. **Figure 37** summarizes the results. Based on the respondents' answers, among the food items asked about, only wheat flour shows an increase in consumption since 1991--at 29% on a per capita basis. This is probably a sign of economic hardship with people consuming more flour and bread due to their relative low prices in conjunction with their satiability effect. Based on survey results, the average person in Tajikistan consumes on a weekly basis, among other food items, 3.4kg of wheat flour and bread, 800gr of potatoes, nearly 180gr of meat, 1.1 liters of milk, 266gr of cooking oil, 800gr of fresh fruits, 38gr of tea and about 220gr of sugar. The consumption of meat shows the highest reported decline since 1991 at -71%, followed by sugar (-54%), cooking oil (-45%), fresh fruits (-38%), milk (-32%), potatoes (-28%) and tea (-6%). (Many rural households said that their tea is now composed of gathered herbs, leaves and even parts of tree trunks as a substitute to purchasing real tea). It can be seen from Figure 37 that households in urban areas consume more meat, potatoes, cooking oil, tea and sugar as compared to rural folk. Rural households in turn consume more wheat flour and milk as compared to urban folk.

Fig. 37
Average Weekly Per Capita Food Consumption (Selected items)



Households were also asked about their primary sources of major food items (**Fig. 38**). About a-quarter (27%) of households reported consuming their home-grown wheat. Nearly two-thirds (65%) responded that they purchase their wheat flour from the bazaar, and 7% reported food aid as their primary source of wheat flour. Purchasing of wheat flour and other food items was the highest in Dushanbe. Use of home-grown wheat was the highest among Qurghonteppa households (54%). More Kulob households reported using their own milk (61%). And more Badakhshan households reported using home-grown potatoes (58%) and fresh fruits (81%). Furthermore, 70% of Badakhshan households reported food aid as their main source of wheat flour and 64% claimed food aid as their main source of milk.

The sample population was asked to identify the four most important food items for their household. As depicted by **Figure 39**, the four most important food items in order of importance were almost the same in all regions surveyed regardless of rural or urban setting. All regions, except Badakhshan, responded that the four most important food items are wheat flour or bread, cooking oil, sugar and rice (meat was the next highest response for most regions). As a sign of their distinct diet, Badakhshan households identified the four most important food items as wheat flour, cooking oil, milk and tea. A look back at Figure 37 shows that among the regions surveyed, Badakhshan registers the highest in the per capita consumption of milk and tea.

Mixed-Flour Households

The far majority of households in Tajikistan, especially in rural areas, bake their own bread. Wheat is the base flour used ubiquitously. Households were asked whether they mix their wheat flour with other grain flours (**Fig. 40**). About one-third (32%) responded that they do. Among the households who consume mixed-flour bread, 55% said that they combine wheat flour with that of corn; 24% said to combine wheat with barley; 8% with corn and bran; 7% with corn and barley; 3% with bran; 2% with corn, bran and barley, and 1% of households responded to use pure corn flour for making bread.

As seen by **Figure 41**, among the regions surveyed, the highest proportions of households consuming mixed flour are in Kulob (50%) and Qurghonteppa (46%), and the lowest proportions of households consuming mixed flour are in Dushanbe (10%) and Badakhshan (21%). The average composition of household flour for the households who use mixed-flour in Tajikistan was found to be: 62% wheat, 21% corn, 10% barley and 7% bran. Among the mixed-flour households, Qurghonteppa was found to use the least wheat flour at 59%, and Dushanbe the most at 73%.

When conducting statistical crosstabulations with the variable "mixed-flour" against other selected variables of our survey, the following statistically significant relationships were found (z-tests at $\alpha = 0.10$):

- A higher proportion of households consuming mixed-flour is rural (85%) as compared to other households (57%);
- Mixed-flour households are on the average larger, with 9.4 members vs. 7.6 members for others;
- Mixed-flour households have more agricultural land, with an average of 0.37 ha per household vs. 0.29 for other households. Mixed-flour households have on the average larger areas of home garden (0.07 ha vs. 0.05 ha), presidential land (0.05 ha vs. 0.02 ha) and dehqan farmland (0.07 ha vs. 0.05 ha), however their average irrigated area per household is smaller than that of other households (0.17 ha vs. 0.20 ha). A larger proportion of mixed-flour households has been recipient of presidential lands (34%) as compared to other households (15%);
- A larger proportion of mixed-flour households has farm animals (cows, sheep, goats and poultry) and more of them as compared to other households;
- A higher proportion of mixed-flour households (58%) borrowed funds in the past year as compared to other households (41%);
- A higher proportion of mixed-flour households has received humanitarian aid (45%) in the past year as compared to other households (35%);

Fig. 38
Food Source

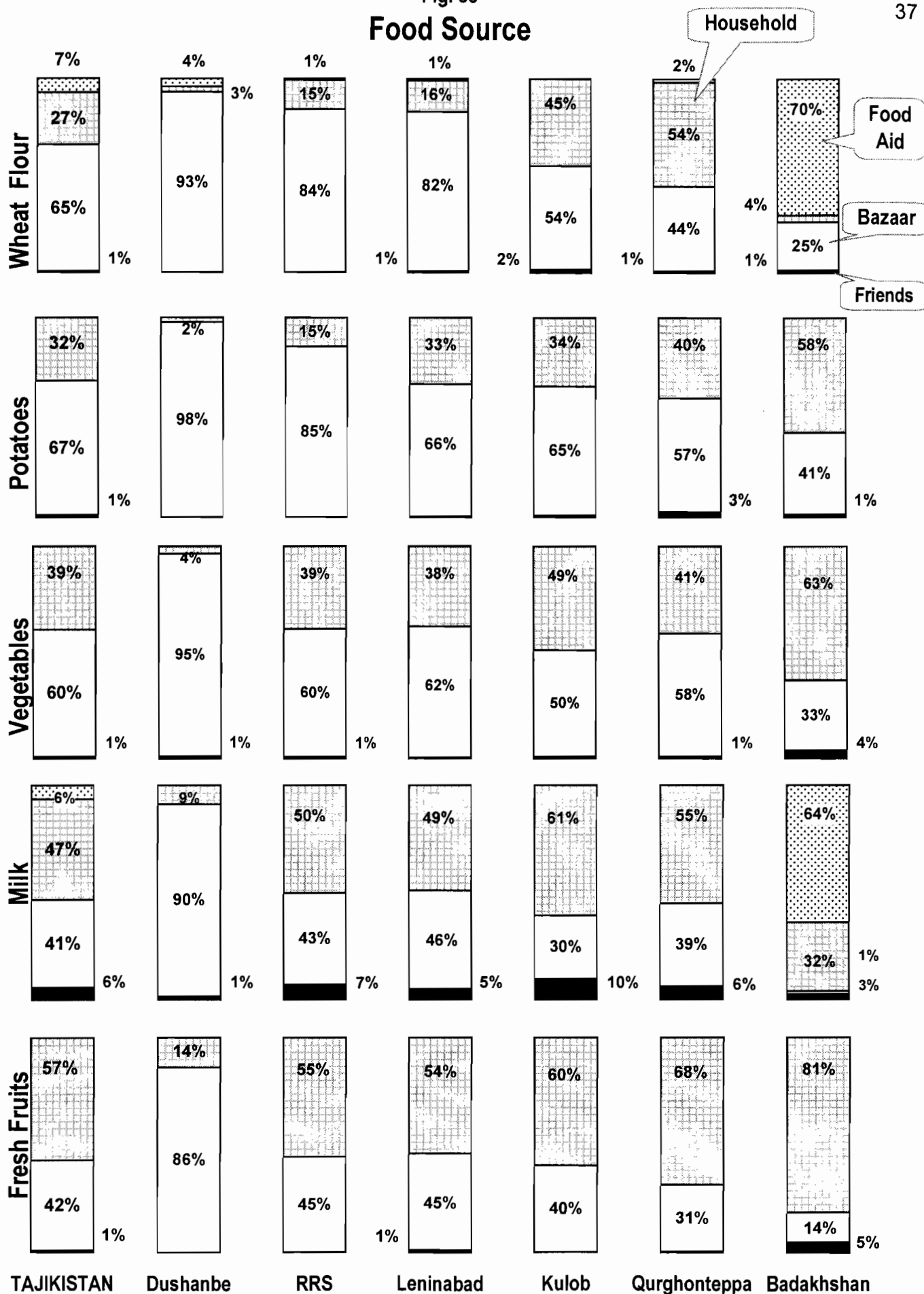
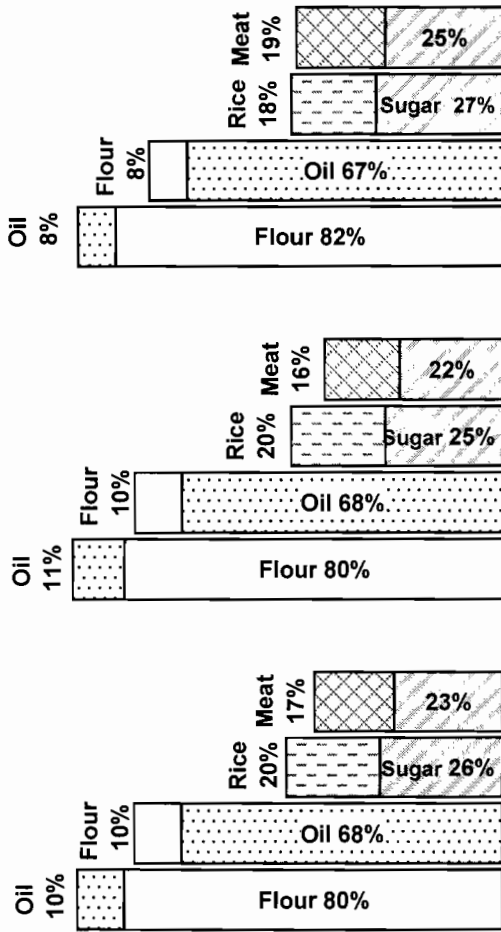


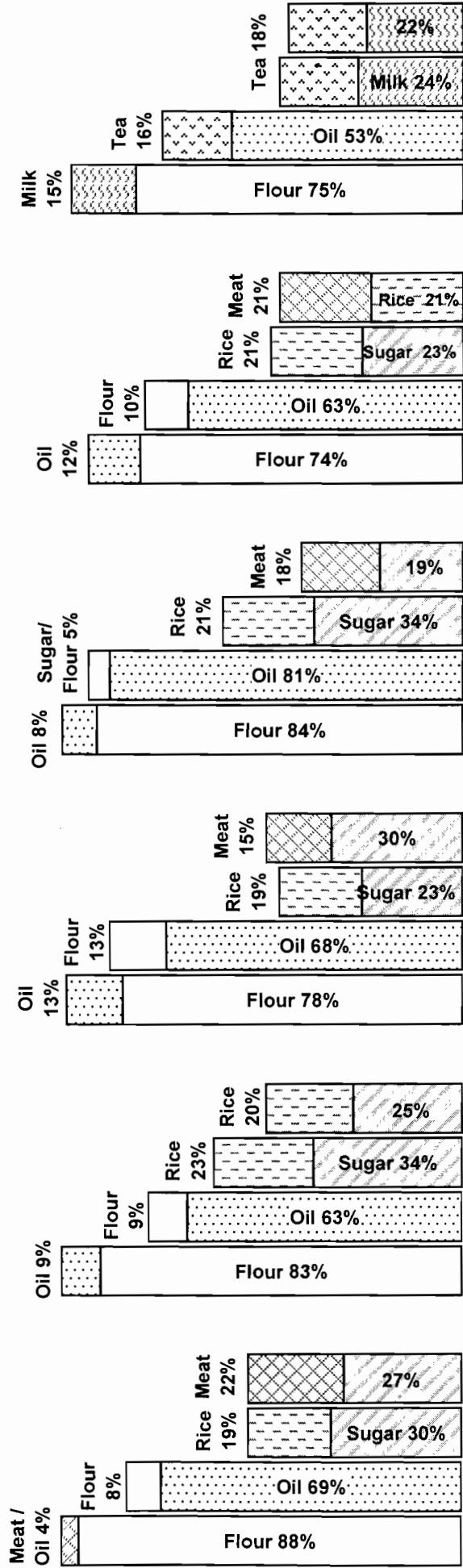
Fig. 39
Four Major Food Preferences
 (top two answers by % of households)
 (n=1,020)



Rural

Urban

TAJIKISTAN



Dushanbe

RRS

Qurghonteppe

Kulob

Leninabad

Badakhshan

Fig. 40

Households Consuming Mixed-Flour Bread

(Distribution of households by flour mix; n=323)

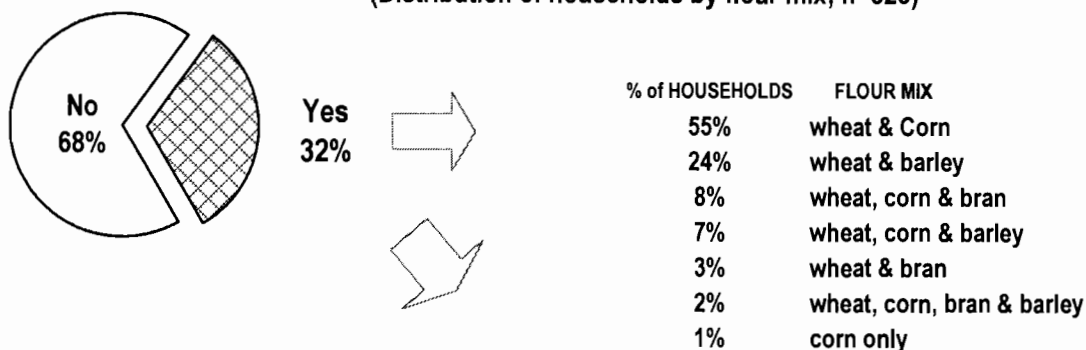


Fig. 41 Flour Composition

(Mixed-flour households only; n=323)

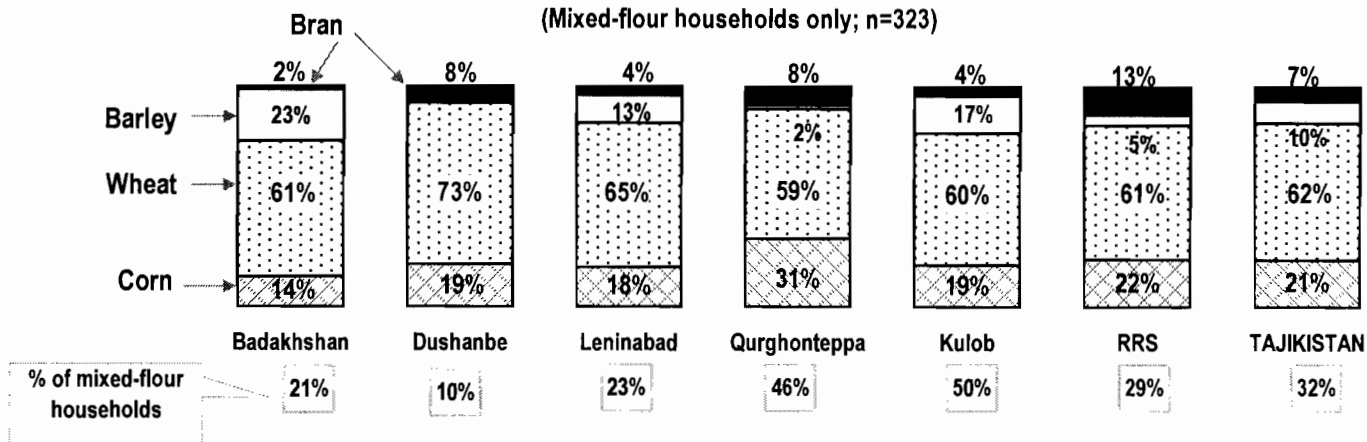


Fig. 43

Opinion on Food Situation in the Next 6 Months

(Survey date: June-July 1998)

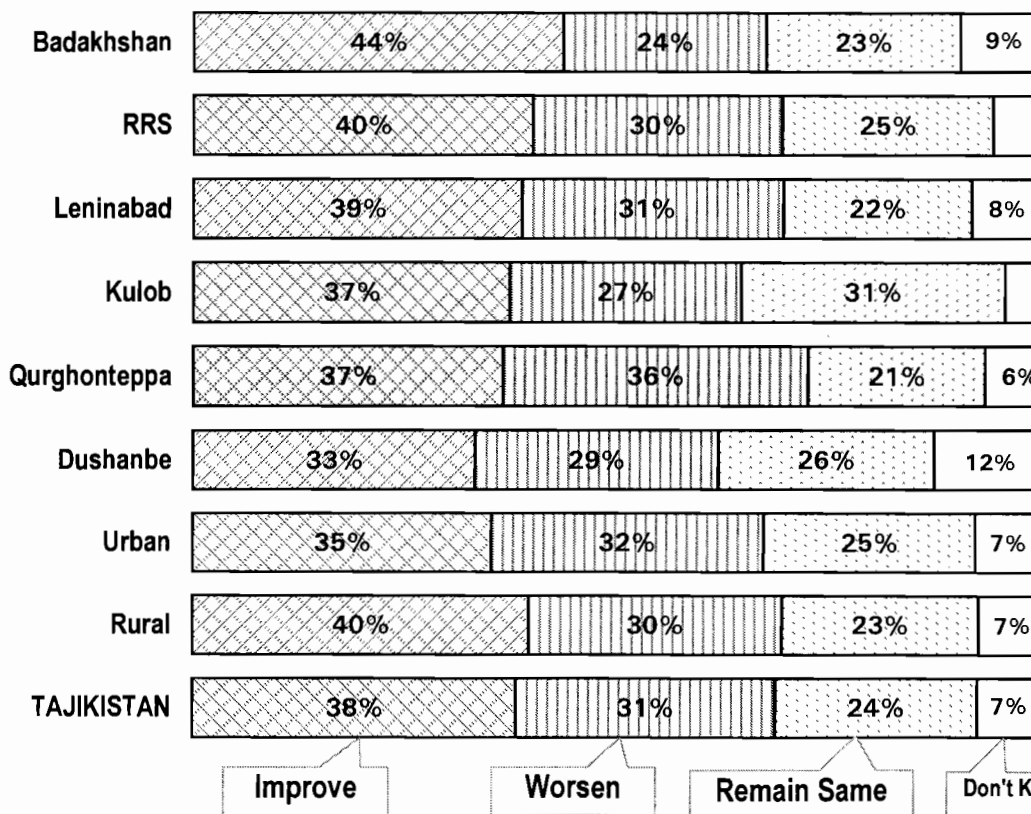
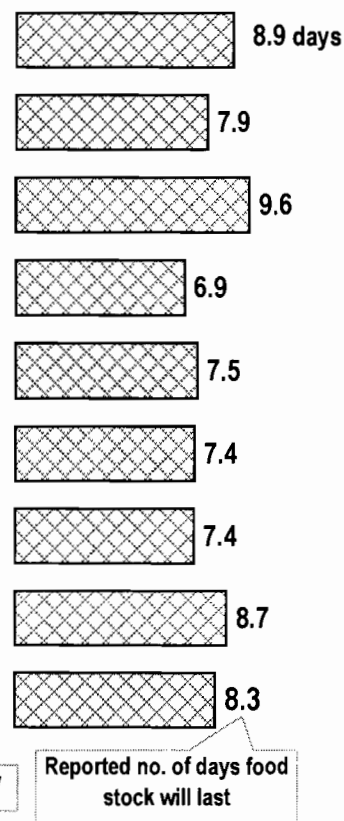


Fig. 42

Household Food Stock



- ☑ A lower proportion of mixed-flour households (10%) has purchased household items or animals in the past year as compared to other households (15%);
- ☑ A higher proportion of mixed-flour households (37%) sold household goods or farm animals during the past year as compared to other households (25%);
- ☑ Mixed-flour households have on the average 20% less monthly expenses (\$58 vs. \$73) and 10% less monthly income (\$59 vs. \$65) as compared to other households. On a per capita basis, the expenses of mixed-flour households are on the average 41% less and income 31% less than that of other households;
- ☑ Despite their lower expenses and income, a higher proportion of mixed-flour households is food secure as compared to non-mixed-flour households (72% vs. 66%).

Food Security

On the average, households in Tajikistan reported their existing food stocks to last for 8.3 days (Fig. 42). Households in Kulob reported the lowest food stocks, as measured in number of days, at an average of 6.9 days, and households in Leninabad reported the highest stocks at 9.6 days. Households were also asked to give their opinion on the food situation for the next six months, whether it would improve, remain the same or worsen. On the whole, 38% of the households thought that their food situation would improve, 24% thought that it would remain the same and 31% thought that it would worsen (7% did not know, many of whom responded that "its in the hands of God"). Among the regions surveyed, Dushanbe seemed to be the least optimistic, with 33% of households thinking that their food situation would improve, and Badakhshan the most optimistic, with 44% of the households being of the opinion that food conditions would improve. Rural households were found to be more optimistic (40%) as compared to urban folk (35%) with regards to the food situation. (This may be due to the fact that more rural households are in possession of arable land as compared to urban folk, and that the survey was done during harvest time where in general people are in anticipation of increasing their food stocks. As was seen by Figure 23, 70% of rural households have access to 0.05 ha of arable land or more as compared to 46% of urban households).

The 1997 Echo survey estimated 84% of the households to be food secure and 16% food insecure. It also estimated 86% of the households in Tajikistan to have adequate diets and 14% inadequate diets. It defined food security as the "ability of the household to obtain a diet adequate in maintaining a healthy life without food aid" (Freckleton 1997, p. 4). A household with adequate diet was in turn defined as one which consumes bread everyday, at least one type of animal or legume two or more days per week, and four or more other staples at least 4 days per week.

Nutrition surveys such as the measuring of the concepts of food security and food adequacy based on household responses are rough estimates, to say the least. Anthropomorphic studies in conjunction with detailed analysis of household diets would in no doubt be better substitutes. Notwithstanding, the current survey, though not having intended to focus on nutrition and food security per se, did acquire sufficient information on food and household consumption to be able to provide similarly rough estimates of food adequacy and food security.

The definition of food security was kept practically the same as in the Echo survey. We held to a definition of **food security as assured access by the household, primarily by production or purchase, to enough nutritious food to sustain healthy lives, excluding food aid** (BWI 1998, p. 113). And we defined **food adequacy as assured access by the household, through production, purchase or food aid, to enough nutritious food to sustain healthy lives**. Note that as was done by the Echo survey, we included food aid when measuring food adequacy as opposed to food security.

When measuring these concepts, however, instead of basing them on the number of days certain food items are consumed, a more nutritional look at weekly diets was attempted. As was depicted by Figure 37, data was acquired on the reported weekly amounts of major food items consumed by households. To calculate food adequacy and food security, we postulated that the six food items of bread, potatoes, meat, milk, cooking oil and sugar provide at the minimum 50% of the

dietary intake of households. Subsequently, the daily nutritional requirements for various age groups in terms of caloric requirements, animal protein, vegetable protein, fat and carbohydrates were identified.¹⁷ And the nutritional contents per 100gr of the six food items cited were identified.¹⁸ Furthermore, information on humanitarian aid, the far majority (81%) of which was reported in being food aid was queried from the households. The average age of households were calculated and based on their reported weekly consumption of the six food items cited, levels of food adequacy and food security were determined.

We decided that a household would be rated as "food adequate" if on a per capita basis it would satisfy (on 50% level) from the consumption of wheat, potatoes, meat, milk, cooking oil and sugar at least three or more of the following recommended nutritional requirements: daily caloric intake, animal protein intake, vegetable protein, fat and daily requirement of carbohydrates. For example, if a household's average age was found to be 35, in order for it to be rated as food adequate, it should satisfy from the consumption of the six foodstuffs cited, at least three or more of the per capita daily requirements (on 50% level) of: 2600 k calories, 35gr of animal protein, 54gr of vegetable protein, 84gr of fat and 356gr of carbohydrates. If the household only satisfied two of the said requirements, it was rated as "marginal" and if it satisfied only one or none of the said nutritional requirements, it was rated as "food inadequate".

For calculating food security, the same process was used with the exception that the estimate for the nutritional value of food aid was subtracted from the household's per capita daily dietary intake. As in the calculation of food adequacy, households which satisfied (on 50% level) three or more of the daily nutritional requirements were rated as "food secure". Those who satisfied only two of the said requirements were rated as "marginal" and those who satisfied only one or none of the said nutritional requirements were rated as "food insecure". **Figures 44** and **45** summarize the results. As can be seen, overall in Tajikistan, 73% of households were determined to consume adequate diets, 9% being marginal and 18% being categorized as or having inadequate diets. When food aid was subtracted from households' diets, the levels of food security were determined. For Tajikistan as a whole, 68% of households were found to be food secure, 9% being marginal and 23% food insecure.

Given the rough nature of such calculations, rather than focusing on the absolute figures, a look at the relative standing of regions with regards to food adequacy and food security is more appropriate. As can be seen, rural households rated slightly better in both food adequacy and food security relative to urban folk. Overall, households in Khatlon (Qurghonteppa and Kulob) and Badakhshan showed the highest levels of food adequacy. Initially one may think this to be due to the said regions being heavy recipients of food aid. When looking at the level of household food security, however, practically the same proportion of households in Khatlon were found to be food secure as they were food adequate, but a dramatic change occurred with regards to Badakhshan. Only 42% of households in Badakhshan were found to be food secure. The marked difference between proportions of food adequate and food secure households in Badakhshan shows the heavy reliance of that region on food aid. Another important find was that among the regions surveyed, Dushanbe households rated the lowest in food adequacy and the second lowest (after Badakhshan) in food security.

¹⁷ On the average people below the age of 18 require on a daily basis: 2,500 k calories, 36gr of animal protein, 52gr of vegetable protein, 87gr of fat and 367gr of carbohydrates. For individuals between the ages of 18 to 40, the daily nutritional requirements are: 2,600 k calories, 35gr of animal protein, 54gr of vegetable protein, 84gr of fat and 356gr of carbohydrates. And for people above 40, the daily requirements are: 2,250 k calories, 33gr of animal protein, 49gr of vegetable protein, 76gr of fat and 392gr of carbohydrates (MOH-USSR 1991).

¹⁸ The six food items under consideration were found to contain the following nutritional value per 100gr of food item. Wheat: 327 k calories, 10.3gr protein, 0.9gr fat and 74.2gr carbohydrates; potatoes: 83 k calories, 2gr protein, 0.1gr fat and 19gr carbohydrates; meat: 144 k calories, 20.2gr protein, 7gr fat and no carbohydrates; milk: 59 k calories, 2.8gr protein, 3.2gr fat and 4.7gr carbohydrates; cooking oil: 899 k calories, no protein, 99.9gr fat and no carbohydrates, and sugar: 374 k calories, no protein, no fat and 99.8gr carbohydrates (Taranova 1987).

Fig. 45 Estimated Food Security

(Food Security: "assured access by the household, primarily by production or purchase, to enough nutritious food to sustain healthy lives")

(in % of households by region)

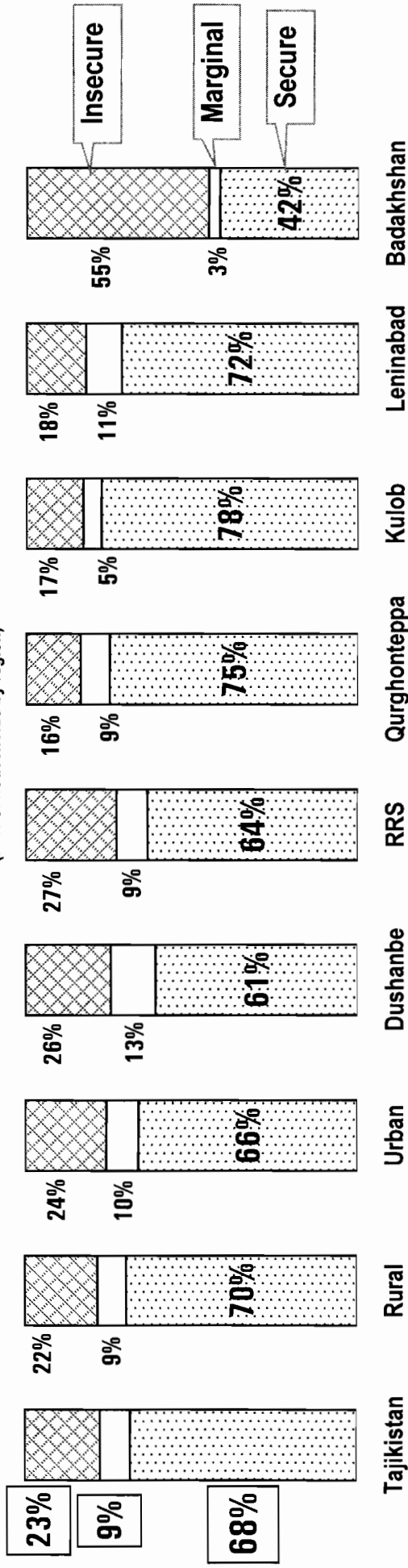
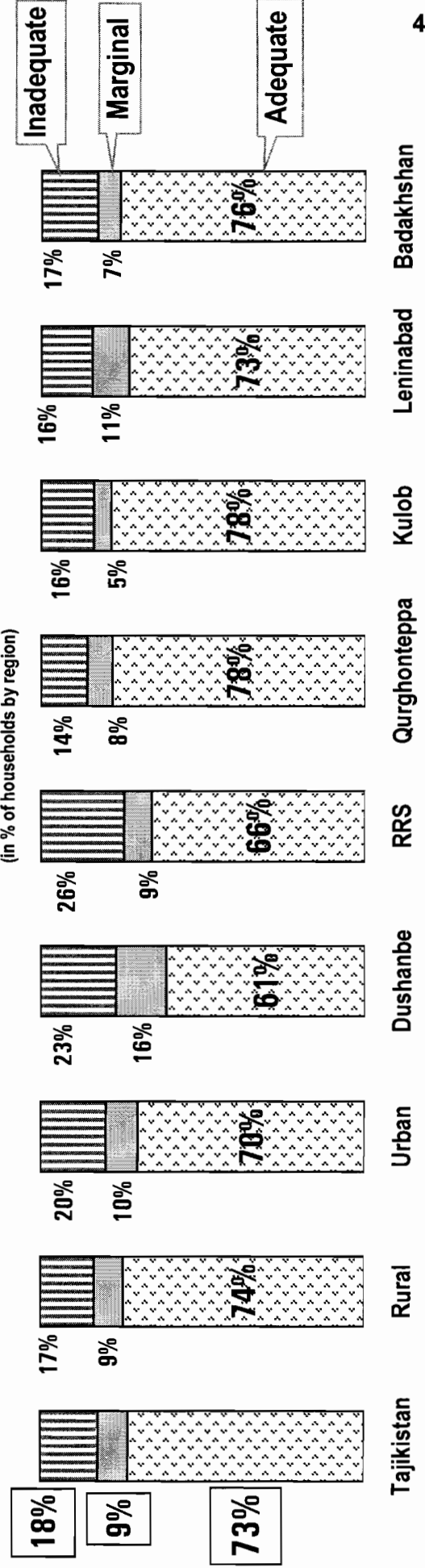


Fig. 44 Estimated Food Adequacy

(Food Adequacy: "assured access by the household, through production, purchase or food aid, to enough nutritious food to sustain healthy lives")

(in % of households by region)



When conducting statistical crosstabulations between “food secure” and “food insecure” households, the following statistically significant relationships were found (z-tests at $\alpha = 0.10$)¹⁹:

- Food secure households tend to be on the average 21% smaller than food insecure households (7.8 members vs. 9.4 members);
- Food secure households tend to have on the average 45% more overall agricultural lands (0.36 ha) as compared to food insecure households (0.22 ha);
- Food secure households tend to have acquired on the average more land since 1991 (0.30 ha) as opposed to food insecure households (0.17 ha);
- A larger proportion of food secure households (24%) has access to presidential lands as opposed to food insecure households (17%);
- Overall, 12% of households reported having access to dehqan farmland. Food secure households have on the average more than twice as much access to dehqan farmland (0.07 ha per household) as opposed to food insecure households (0.03 ha);
- Also overall, 12% of households reported using rented agricultural land. Food secure households have on the average a larger area of rented agricultural land (0.19 ha) relative to food insecure households (0.11 ha);
- A larger proportion of food secure households has cows (54%) vs. food insecure households (45%), and food secure households have on the average more cows (0.92 cow per household) vs. food insecure households (0.75 cow);
- However, food insecure households tend to have on the average more goats (1 goat per household) relative to food secure households (0.6 goat);
- A larger proportion of food secure households has donkeys or horses (16%) vs. food insecure households (9%);
- More food insecure households (33%) reported having sold household items in the past year vs. food secure households (26%);
- Food secure households borrowed more money in the past year (TJR4,608 or \$5.6 per month) as compared to food insecure households (TJR2,783 or \$3.4 per month);
- More food secure households (15%) reported having purchased farm animals or electrical items in the past year relative to food insecure households (11%);
- Food insecure households, on the average, are of the opinion that newlywed couples should plan to have 2.9 children vs. 3.1 children recommended by food secure households;
- Food insecure households tend to be more optimistic regarding food security than food secure households: A higher proportion of food insecure households (44%) thought that their situation with regards to food would improve in the next six months compared to food secure households (37%);
- Food secure households have on the average 33% higher monthly expenses (TJR60,772 or \$73) compared to food insecure households (TJR45,460 or \$55);
- A higher proportion of food insecure households (53%) reported having received some type of humanitarian aid in the past year relative to food secure households (33%). Food insecure households tend to have received on the average 3.5 times more monthly humanitarian aid in the past year as opposed to food secure households (\$5.9 vs. \$1.7);
- There is no statistically significant difference between the calculated monthly incomes of food secure vs. food insecure households. However, when the value of humanitarian aid is subtracted from incomes, food secure households tend to have on the average 19% higher monthly income (TJR53,166 or \$64) as compared to food insecure households (TJR44,812 or \$54).

¹⁹ Note that as depicted by Figure 45, “food secure” and “food insecure” households respectively comprise of 68% and 23% of the sample population. The remaining 9% of households, which were categorised as “marginal” with regards to food security, were not included in this statistical crosstabulation.

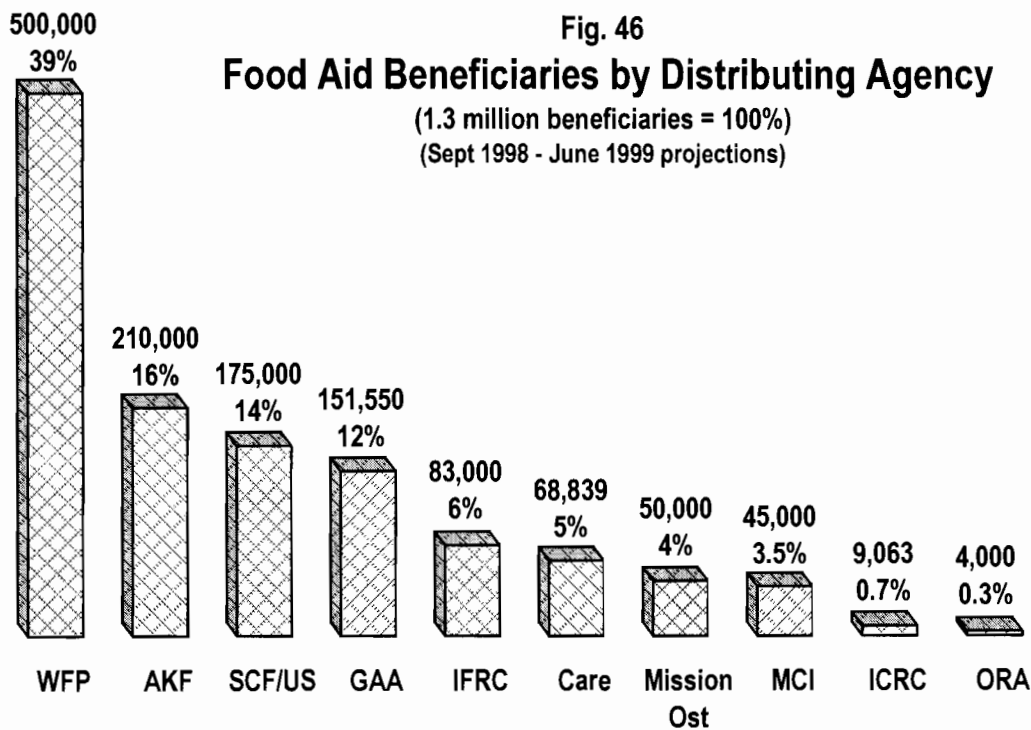
Though the variables "total area of household access to agricultural land" and "food security" were found not to be statistically correlated, our data shows that there are significant differences with regards to household food security and food adequacy between households which have areas of agricultural lands equal to or larger than 0.11 ha and those with less than 0.11 ha. Based on our survey, 55% of households in Tajikistan have agricultural lands equal to or exceeding 0.11 ha and 45% have less. The following statistically significant differences were found between the two groups (z-tests at $\alpha = 0.10$):

- A higher proportion of households with agricultural land equal to or exceeding 0.11 ha is food secure (70% vs. 66%) and food adequate (75% vs. 70%) vs. households with less than 0.11 ha;
- A higher proportion of households with agricultural land equal or exceeding 0.11 ha is rural (91%) vs. those with less than 0.11 ha (46%);
- A lower proportion of households with 0.11 ha of agricultural land or more is female-headed (12%) vs. households with less than 0.11 ha (18%);
- Households with 0.11 ha or more of agricultural land are 31% larger and have on the average 9.4 members vs. 7.2 members for households with less than 0.11 ha;
- A lower proportion of households with 0.11 ha or more of agricultural land (32%) sold household items or farm animals in the past year as compared to other households (25%);
- A higher proportion of households with 0.11 ha or more of agricultural land (50%) borrowed funds in the past year compared to others (44%);
- Nearly half of all households with 0.11 ha or more of agricultural land (47%) are recipients of humanitarian aid as opposed to a-third (32%) of households with less than 0.11 ha. And households with 0.11 ha or more of agricultural land received on the average more than twice the humanitarian aid as compared to those with less than 0.11 ha (\$3.8 vs. \$1.8 per household per month);
- Households with or exceeding 0.11 ha of agricultural land were more optimistic with regards to food security: 41% of such households thought that their situation with regards to food would improve in the next six months vs. 35% of households with less than 0.11 ha;
- There is no statistically significant difference between the average calculated monthly expenses of households with 0.11 ha or more of agricultural land and those with less. However, the monthly income of households with 0.11 ha or more of agricultural land is 26% higher (\$72 vs. \$57). And on a *per capita* basis, the monthly expenses and income of households with less than 0.11 ha of agricultural land are larger than households with 0.11 ha or more. (This is partially due to the smaller size of households with less than 0.11 ha.)

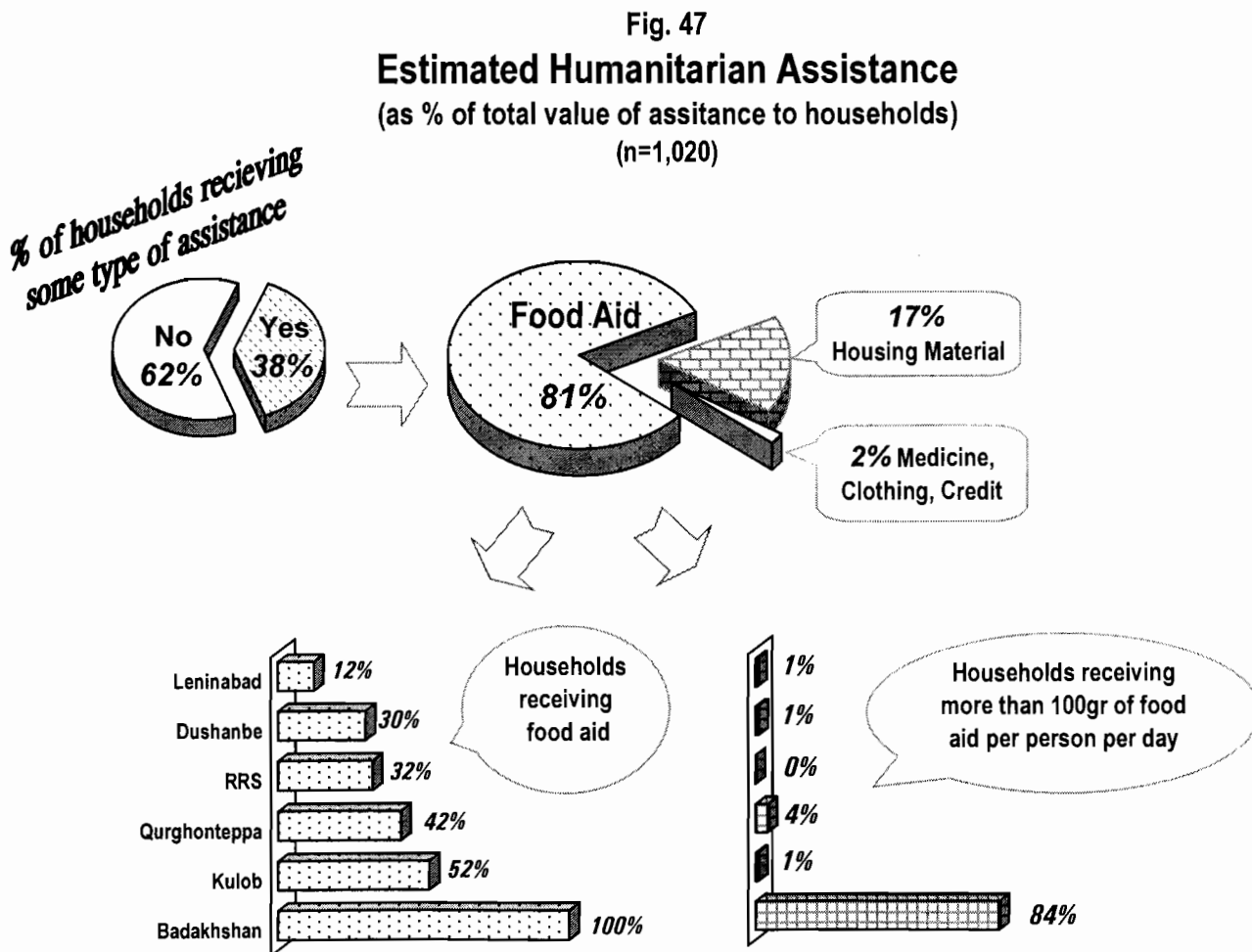
Food Aid

Total annual grain requirements for Tajikistan is estimated at 1.1 million MT. Grain deficits in the past several years have ranged from 300,000 MT to 500,000 MT, which have more-or-less been compensated through food imports by the government, the private sector and the international humanitarian agencies. The total amount of food aid to Tajikistan is estimated to have been around 100,000 MT per year in the past couple of years, with wheat flour constituting the bulk (EIU 1998-c). There are various international organizations and NGOs involved in food aid to Tajikistan. **Figure 46** depicts these agencies with the number of beneficiaries they have reported. The total number of food aid beneficiaries nears 1.3 million, with UNWFP, the Aga Khan Foundation (AKF) and SCF/US serving 69% or more than two-thirds of the whole.

Among the households of the survey, 38% claimed to have received some type of humanitarian assistance in the last year (**Fig. 47**). When assigning a monetary value to such assistance, it was found that about 81% of humanitarian assistance has been in the form of food aid, another 17% in the form of housing material and 2% in the form of other types of assistance such as medicine, small credit and clothing. Despite the apparent significance of humanitarian assistance, based on our survey, its reach and importance are debatable. For example, based on our survey, 100% of households in Badakhshan reported having been recipients of food aid during the past year. Likewise, 52% of households in Kulob, 42% of households in Qurghonteppa, 32% in



(Source: UN World Food Programme-Tajikistan)



RRS, 30% in Dushanbe and 12% in Leninabad reported having received some amount of food aid in the past year. However, when looking at households who received an equivalent of 100gr or more of food aid per person per day, a dramatic change appears. Though a large part of Badakhshan households (84%) received food aid equivalent to 100gr or more per person per day, only 4% of households in Qurghonteppa, 1% of households in Kulob, Dushanbe and Leninabad and 0% of households in RRS were found to have received food aid at this level.

When statistical crosstabulations were conducted with the households that reported having received humanitarian aid in the past year and those that did not, against selected variables of our survey, the following statistically significant relationships were found (z-tests with $\alpha = 0.10$):

- A higher proportion of aid-receiving households is rural (72%) compared to non-receivers (62%);
- Aid-receiving households tend to be larger with an average of 8.8 members vs. 7.8 members for others;
- A higher proportion of aid-receiving households is female-headed (20%) as compared to other households (13%);
- Though there is no statistically significant difference between the average total area of agricultural lands used by aid-receiving and non-receiving households, there is a statistically significant difference in their access to land in 1991. Aid receiving households on the average report having had larger areas of arable lands (0.066 ha) in 1991 relative to non-receivers (0.054 ha). And aid-receiving households on the average have had a higher increase in their agricultural land area per household since 1991 (397%) as compared to other households (356%);
- A larger proportion of aid receiving households has access to the various forms of arable land. On the whole, 85% of aid receiving households have home gardens vs. 76% of non-receivers; 25% have presidential land vs. 19% of non-receivers; 20% have dehqan farmland vs. 7% of non-receivers, and 79% of aid-receiving households have irrigated lands vs. 72% of non-receivers;
- Aid-receiving households have on the average larger areas of home garden (0.061 ha vs. 0.052 ha), presidential plot (0.043 ha vs. 0.026 ha) and dehqan farmland (0.093 ha vs. 0.036 ha) as compared to non-receivers;
- However, aid receiving households have on the average 15% less area of irrigated land (0.17 ha) as compared to non-receiving households (0.20 ha). Also, aid receiving households have on the average 42% less area of rented agricultural land (0.11 ha) compared to non-receivers (0.19 ha);
- More aid-receiving households have cows (57%) vs. others (47%), and aid-receiving households have on the average more cows (1 cow) compared to other households (0.76 cow);
- A higher proportion of aid-receiving households (35%) has sheep and goats and more of them (2.0 heads of sheep or goat per household) vs. others (23% and 1.1 heads per household). Furthermore, a higher proportion of aid-receiving households has poultry (28% vs. 21%);
- More aid-receiving households consume mixed-flour (37% vs. 28%);
- A lower proportion of aid-receiving households (16%) has means of transportation (animal or machine) as compared to non-aid-receivers (20%);
- A lower proportion of aid-receiving households (10%) acquired household animals or electrical equipment in the past year compared to other households (15%);
- Aid-receiving households have on the average 20% less monthly expenses (TJR49,000 or \$59) compared to other households (TJR61,000 or \$74);
- There is no statistically significant difference between the calculated monthly income of aid-receiving vs. non-receiving households. However, when the value of humanitarian aid is subtracted from household incomes, aid-receiving households tend to have on the average 17% less monthly income (TJR45,000 or \$54) compared to non-receivers (TJR54,000 or \$65), and
- A lower proportion of aid-receiving households is food secure (58% vs. 74%) and food adequate (69% vs. 74%) compared to other households.

Occupation and Education

Households were asked about the occupation and level of education of the household head. **Figure 48** shows the reported occupation of the household head for Tajikistan. Four-fifths or 80% reported the occupation of the household head to fall within the following categories: pensioner (20%), unemployed (19%), kolkhoz or sovkhos worker (12%), factory worker (9%), education sector (8%), driver (6%) and small business enterprise (5%). Although nearly a-fifth of household heads were identified as being unemployed, that figure may not necessarily be correct. In several cases, the interviewee in response to the question of household head's occupation would respond: "He's unemployed. He sits in the bazaar all day!" With a bit more inquiry, it was found that what the person meant was that the head of household has de facto lost his/her previous state job and has become a vendor or micro-business owner in the bazaar. With other cases of occupation listed in **Figure 48**, there might also have been misrepresentation, due to the fact that many still consider the state job that they officially have been holding as their current occupation, despite the fact that they may not have gone to work for the past several years for lack of or paltry nature of state salaries. Such people may currently be either unemployed, have become full-time farmers or be involved in micro- and small businesses. (These issues were cleared mid-way in the survey process. There's a chance therefore that the data on the current occupation of household head may not be accurate.)

Figure 49 looks at the reported education level of the head of household. As can be seen, 8% have some level of primary schooling, 45% have finished part or all of secondary school, 24% have attended technical school and 21% of household heads have some amount of university education. Only 2% of household heads were reported to be without any formal education. Though on the whole this may imply a very high level of literacy among heads of households, the same can not necessarily be said about the general population. It is true that compared to many "developing" or Third World societies, Tajikistan has had a high proportion of literate population due to its membership in the Soviet Union. However, based on our empirical observations, it is safe to posit that despite the obvious educational progress made during the Soviet era, the Soviet figures on literacy were exaggerated.

The UNDP lists adult literacy rate for Tajikistan at 97% and the World Bank estimates primary school enrollment at 89% and the combined primary, secondary and tertiary enrollment at 69% of the relevant age groups for Tajikistan (BWI 1998). Another UN document reports the current rate of school enrollment for Tajikistan at about 62% and falling (UN 1998). Our survey estimates the overall level of school non-attendance for school-aged children to be about 15%. And though the survey was not able to conclusively find estimates of regional literacy rates, it is nevertheless safe to assume that literacy and education levels especially in rural areas and among females are lower than generally presumed. The level of education of females seems to be especially low on the secondary and higher levels and varies by region. For example, one report cites that among women in the Kulob zone of Khatlon, merely 3.3% have secondary or high education (UNOPS 1998). That corresponds to our survey findings that the largest average household size (10.1 members) and the highest rate of pregnancy (29%) among 17-45 year-old females in Tajikistan is that of the Kulob region.

Households of school non-attending children were asked the reason for the lack of attendance. **Figure 50** looks at their answers. One-third of the households (34%) with school non-attending children claimed that the lack of proper clothing or shoes is the main reason of school non-attendance of their children. One-fifth (21%) said that their children are working during school hours; 10% claimed that their children are in danger of being physically harmed by children of other regional origin or ethnicity; 9% claimed that they can not afford the necessary funds to send their children to school; 8% said that their children are handicapped; 6% said that school is too far from their village; 4% claimed that the school does not have qualified or sufficient teachers; 3% said that their children are ill; 2% claimed lack of school heating, and 1% each claimed that the low grades of their children and truancy are the main reasons behind school non-attendance of their children.

Households who had school-aged children were asked what they thought as being the major problem of schools these days. **Figure 51** and **Figure 52** depict their answers for Tajikistan and the top four answers for regions surveyed. Overall for Tajikistan, households identified the following

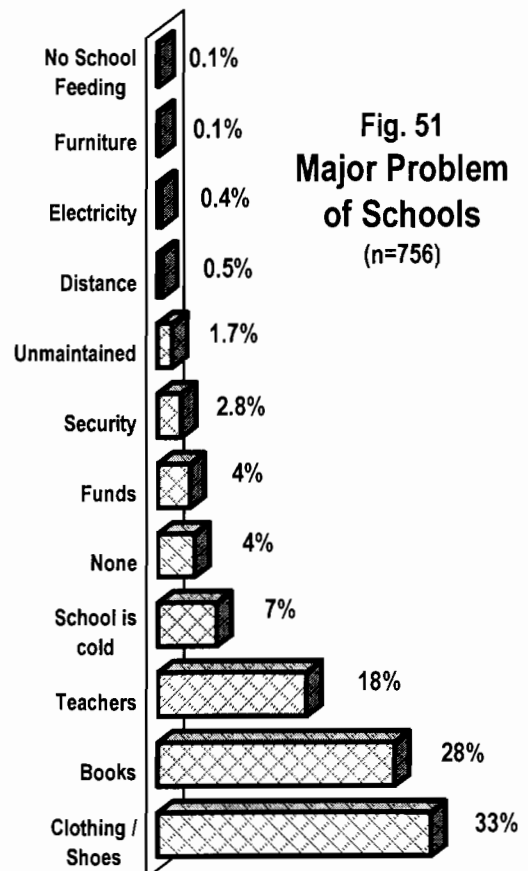
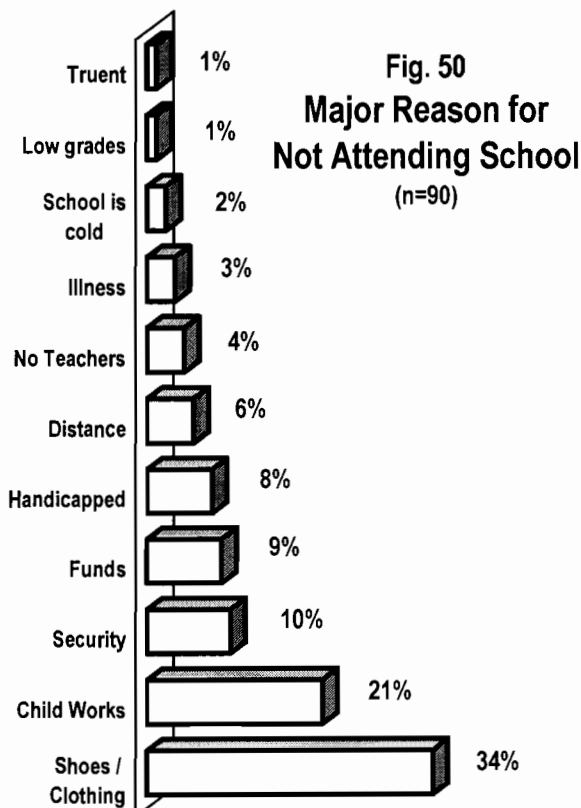
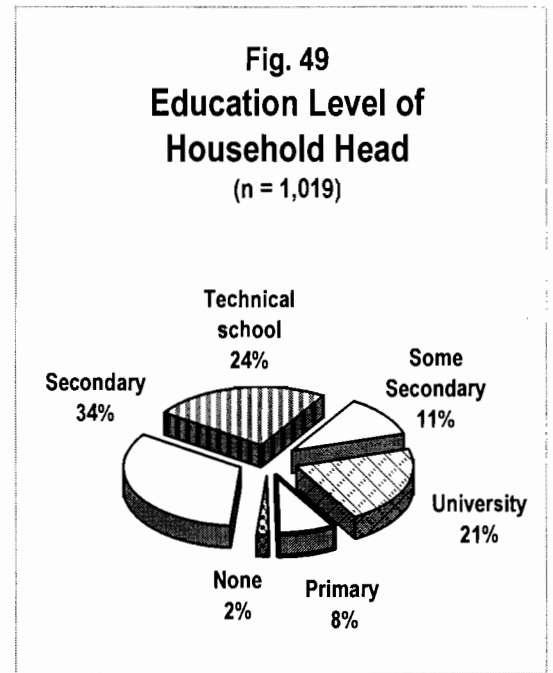
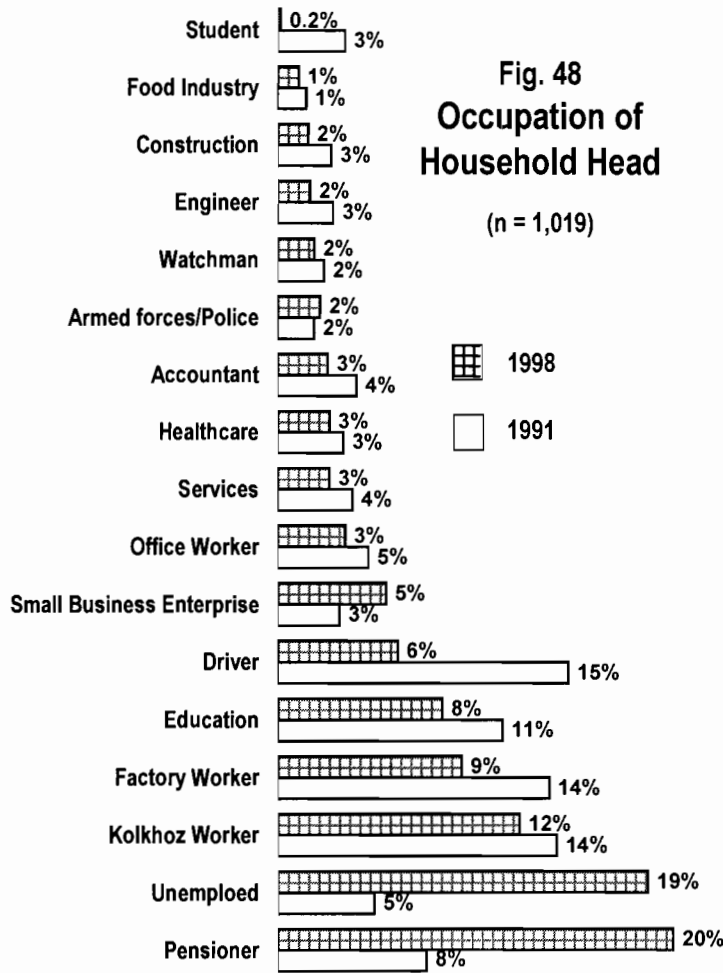


Fig. 52
Main Problem of Schools by Region
 (top four answers; n=756)

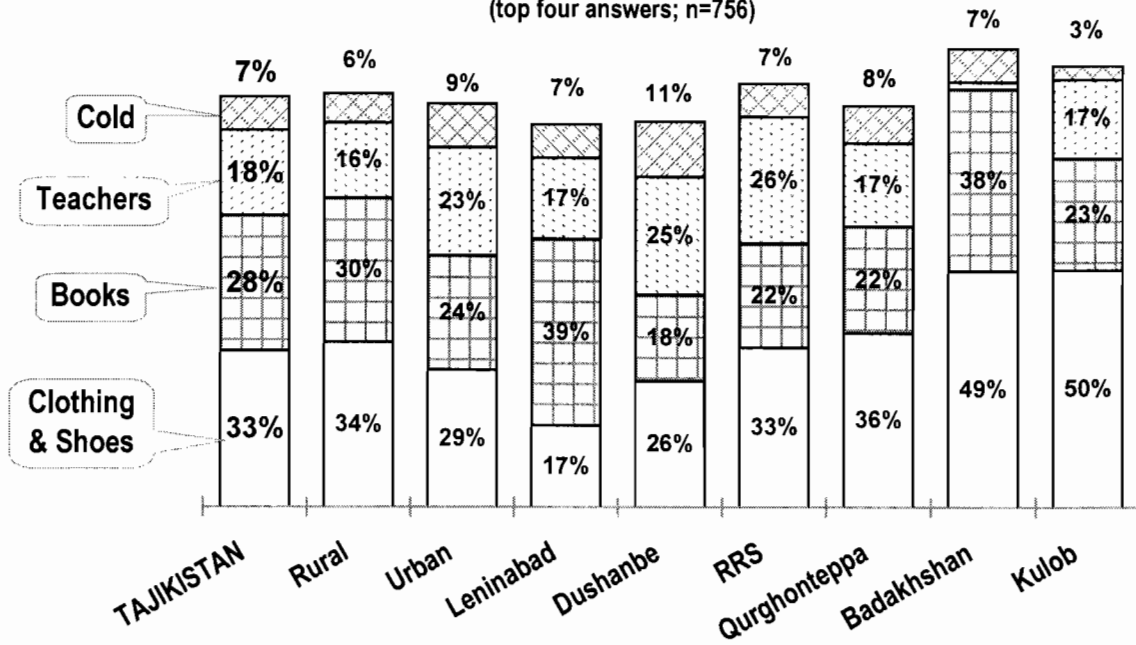


Fig. 54
Main Problem of Hospitals and Clinics
 (% of household responses; n = 656)

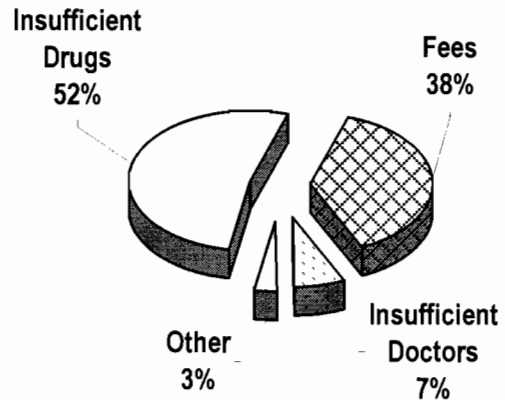


Fig. 55
Household Preference in Location of Childbirth
 (n=368)

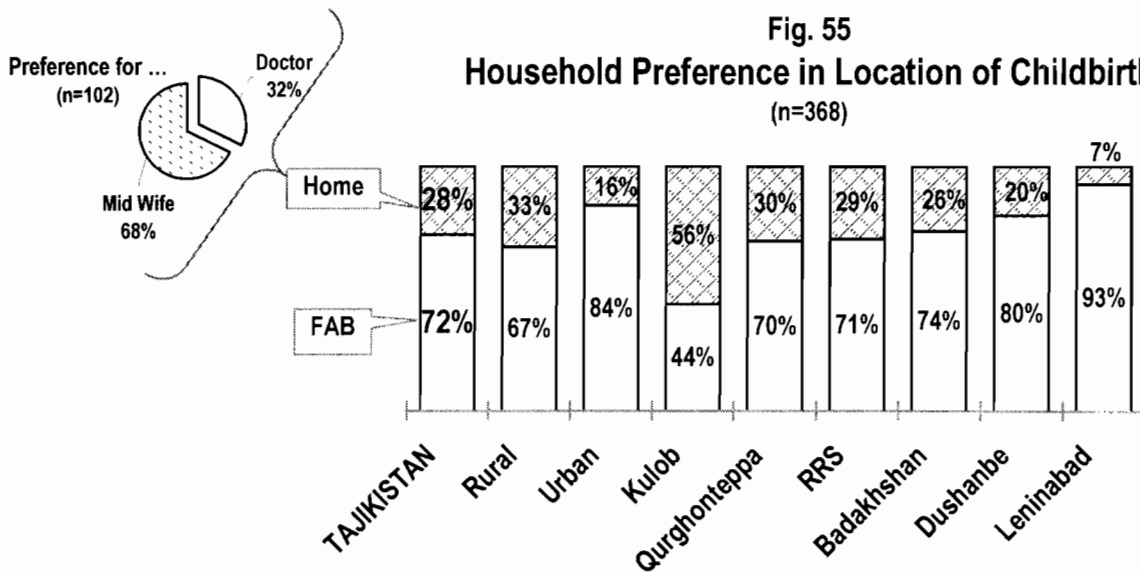
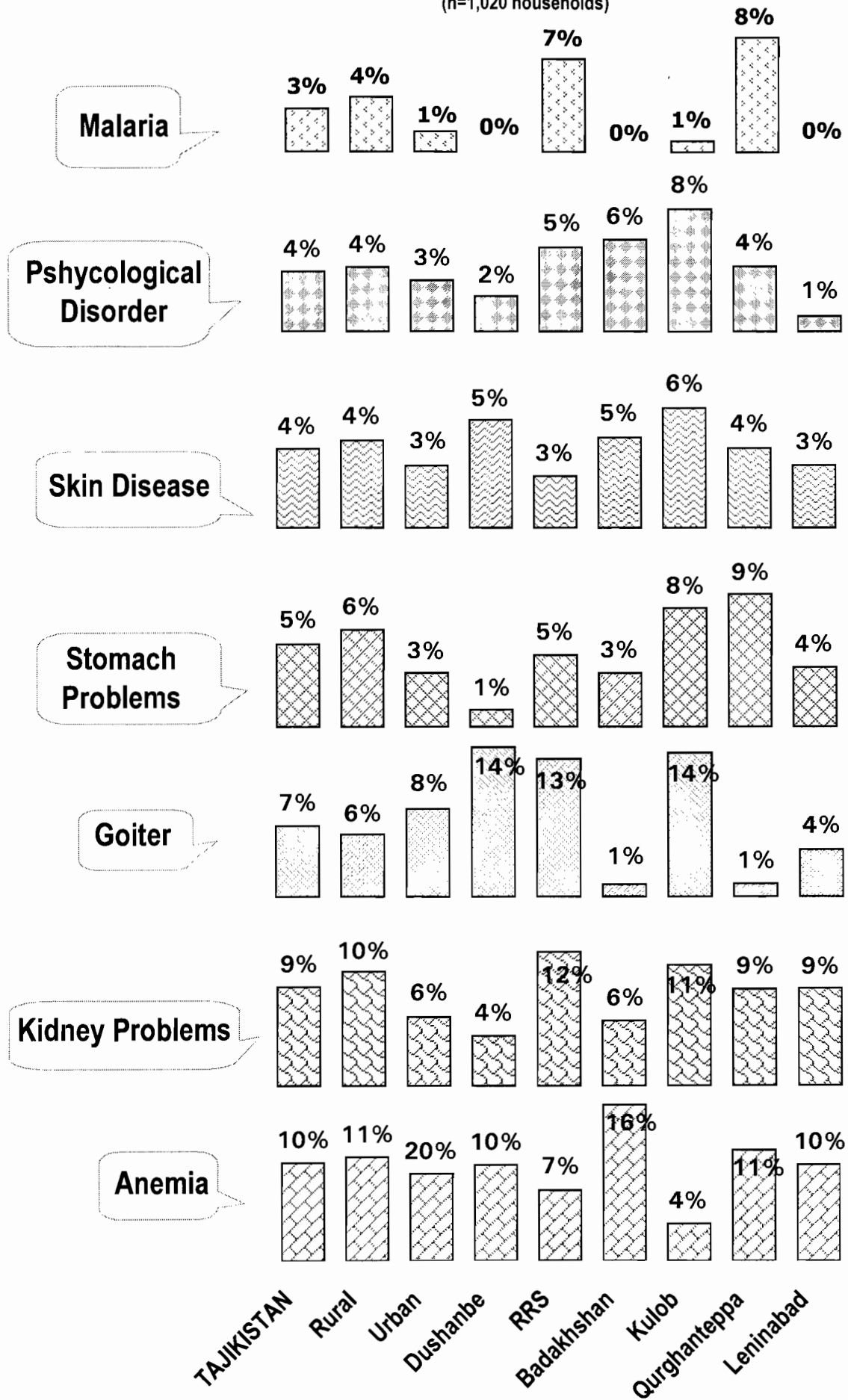


Fig. 53
Reported Health Problems

(n=1,020 households)



major school problems: lack of clothing and shoes (33%), lack of books (28%), shortage of qualified teachers (18%); lack of school heating (7%), shortage of funds (4%), security (3%), unmaintained infrastructure of school (2%), distance (0.5%), lack of electricity (0.4%), lack of school furniture (0.1%) and lack of school feeding (0.1%). (The experience of Save the Children Federation and its school feeding program in the Khatlon province has shown that the availability of school feeding programs substantially increases school attendance by both students and teachers.)

In recent years some schools and institutions for children have either stopped working all together or have, primarily due to lack of funds, grossly deteriorated. This has led to lower enrollments. For example, kindergartens used to be a common site especially in urban areas. The households in our survey were asked as to who looks after their children aged 1.5 to 6 years during working hours. An estimated 62% of the households surveyed had children aged 1 to 6 years. Of those, only 1.2% of the rural households and 7.3% of the urban households said that they leave their children with a kindergarten during working hours.

With regards to higher education, overall, 12% of rural households and 14% of urban households reported at least one household member above the age of 18 attending some form of university or technical school.

Health and Sanitation

Households were asked to identify their major health problems. **Figure 53** depicts the reported major health problems in the form of percentage of surveyed households in each category for Tajikistan, for rural and urban areas and by region. It's important to emphasize that Figure 53 only represents the health problems known to the household and those which the household felt it could share with the surveyors. Due to the fact that many households may not be aware of some health problems afflicting them (such as anemia or tuberculosis), or the chance that there are health problems which households may not be willing to casually report (such as tuberculosis or sexually transmitted diseases), our findings on health problems are most definitely an under-representation. Nevertheless, for regional comparison purposes, Figure 53 is a good estimation of relative levels of some of the major health problems facing households in Tajikistan.

Anemia is a condition resulting in much of the cases from low intake of iron and can cause a reduction in physical activity and increased susceptibility to other diseases.²⁰ For Tajikistan as a whole, 10% of households reported having problems with anemia, with Badakhshan reporting the highest proportion (16%) and Kulob the lowest (4%).

A total of 9% of surveyed households in Tajikistan reported having at least one case of kidney problem, with households in the RRS having the highest proportion (12%) and Dushanbe the lowest (4%).

Goiter, a disease due to iodine deficiency sometimes leading to an excessive enlargement of the thyroid gland, was reported by 7% of households in our survey, with households in Dushanbe and Kulob reporting the highest proportions (14%) and those of Qurghonteppa and Badakhshan the lowest (1%).²¹ [In the past, salt fortification programs to combat iodine micro-nutrient deficiency have been recommended (Wustfeld 1996) and it seems that at least some of the processed salt in Tajikistan is iodine-fortified. What may not have been explored are health education campaigns that emphasize locally available sources of nutrients, such as the iodine-rich and ubiquitous persimmon].

A total of 5% of the households reported cases of stomach problems, with Qurghonteppa reporting the highest proportion (9%) and Dushanbe the lowest (1%). A total of 4% of households reported cases of skin disease, with Kulob having the highest (6%) and RRS and Leninabad the lowest (3%). Psychological disorder was reported by 4% of the households, with Kulob reporting the

²⁰ Nearly half (48%) of all pregnant women world-wide suffer from iron-deficiency anemia. They are at high risk of bearing low-birth-weight babies vulnerable to disease and impaired development (BWI 1998).

²¹ In 1995, an estimated 760 million people world-wide suffered from goiter. Untreated iodine deficiency can lead to mental retardation (BWI 1998).

highest (8%) and Leninabad the lowest (1%). And cases of malaria were reported by 3% of the surveyed households, with Qurghonteppa and RRS reporting the highest (8% and 7%) and households in Leninabad, Badakhshan and Dushanbe not reporting any.

Poverty seems to be the major reason behind much of the health problems. A household member interviewed in the village of Biryash of Shahritus district said: "90% of the inhabitants of our village suffer from malaria, yet no one visits the doctor. We can't afford it." Another household member from Varzob, a village to the west of Dushanbe, told us: "Due to our inability to afford doctor's fees, our 12 year old son died of typhoid."

Our survey asked a general question about vaccination of children, without being specific about the type of vaccination. Households with children under the age of 5 (76% of households) were asked if they have vaccinated their children or not. Overall in Tajikistan, 97.0% of households with children below 5-years of age reported having vaccinated their children, with Leninabad having the highest percentage (99.1%) and Kulob the lowest (91.7%). Other regions surveyed had the following reported vaccination rates: Dushanbe 98.5%, RRS 97.6%, Qurghonteppa 96.9% and Badakhshan 95.5%.

Households were asked their opinion on the main problem of hospitals and clinics. **Figure 54** depicts their answers. As can be seen, 52% identified insufficient or lack of drugs as the main problem, 38% complained of fees and 7% identified insufficient doctors as the main problem facing hospitals and clinics in their area.

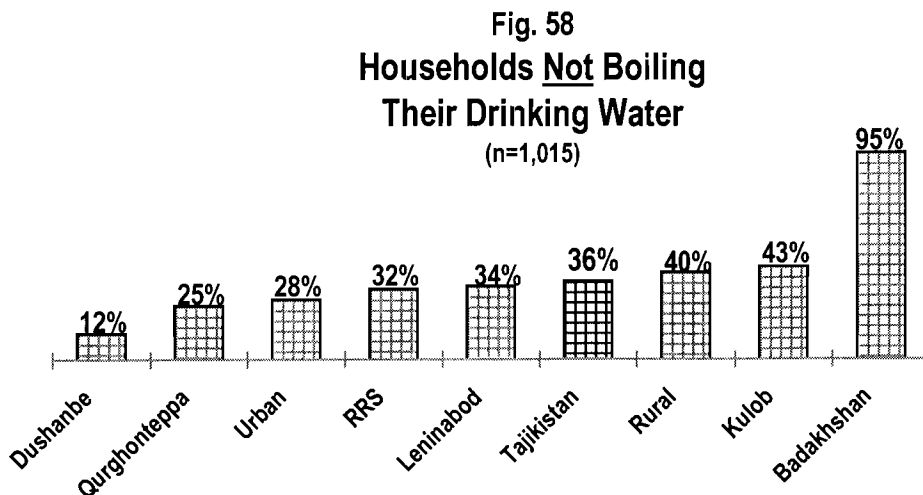
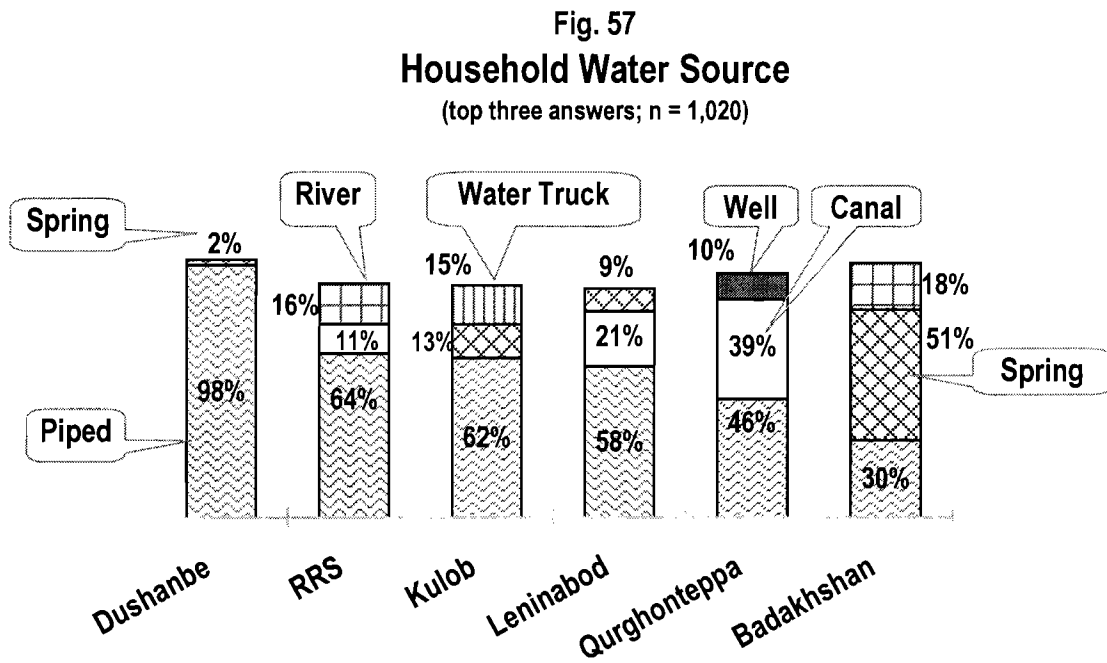
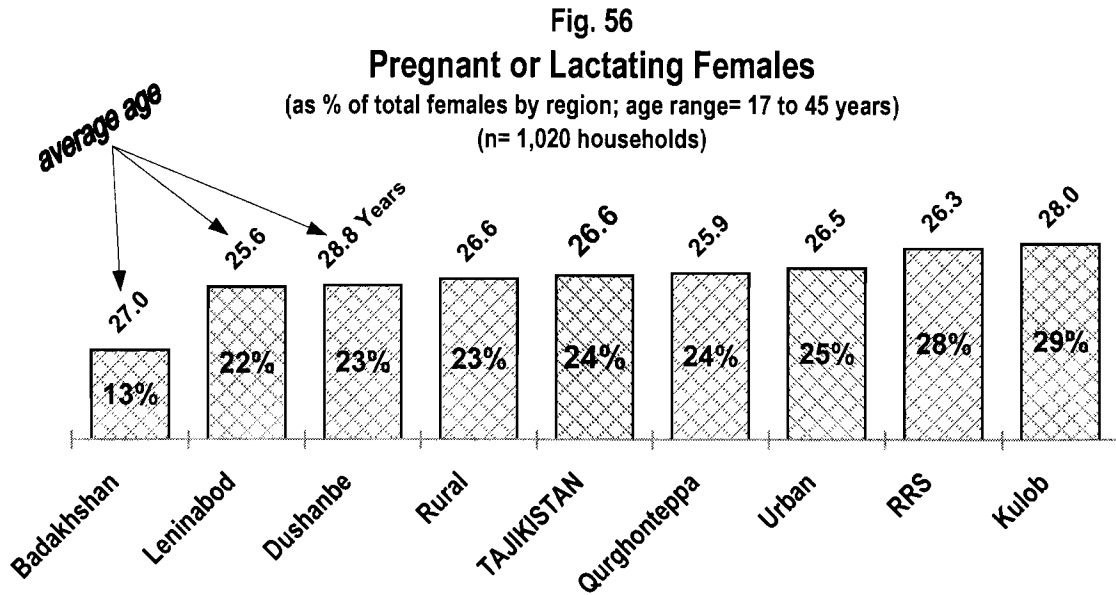
Among the households surveyed, a total of 36% reported having at least one household member being either pregnant or lactating; 6% reported having at least two, and 1% reported at least three household members being pregnant or lactating. From among the 36% of households who had pregnant or lactating members, their preference in the location of childbirth was inquired. As seen by **Figure 55**, overall 72% of the respondents for Tajikistan as a whole stated their preference in the location of childbirth as the FAB (Soviet-era created small hospital or clinic) and 28% prefer giving birth at home. Among the home-preferred childbirth households, 32% said that they used or would use the services of a doctor and 68% would use the services of a neighborhood or household mid-wife. When comparing regions, preference for home-birth was the highest among Kulob households (56%) and lowest among households in Leninabad (7%).

Figure 56 looks at the average age and the percentage of pregnant and lactating females. Based on our survey, overall in Tajikistan, 24% of females are pregnant or lactating. Their ages range from 17 to 45 years, with the average age of 27. The highest proportion of pregnant and lactating females was found in Kulob (29%) and the lowest in Badakhshan (13%). Dushanbe was found to have the highest average age of pregnant or lactating females at nearly 29 years and Leninabad and Qurghonteppa the lowest at 26 years.

Potable Water

Tajikistan is endowed with fresh water resources that could potentially fulfill the country's potable and agricultural water requirements and generate additional income through the sale of hydropower. Water, however, has become "a source of disease, disagreement at home and disputes with the neighbors," writes *the Economist* in its July 4th, 1998 edition. It further adds that "Tajikistan's water is filthy." Many Dushanbe residents would agree, having encountered occasional dead flies and leaves in their tap water and having seen their water resemble coffee after rainstorms!

Households of our survey were asked about the source of their drinking water. **Figure 57** depicts their answers. As can be seen, piped water is most common in Dushanbe with 98% reporting it as their main source of potable water. The use of (irrigation) canal water as the source of potable water was the highest in Qurghonteppa with 39% of households reporting it. In addition, 10% of households in Qurghonteppa reported well-water as their source. The highest proportions of spring (51%) and river (18%) as the source of drinking water were reported by Badakhshan households. In Kulob area, 15% reported water-truck as their source of potable water.



The source of drinking water does not necessarily assure its cleanliness. Households were asked whether they boil their drinking water or not (**Fig. 58**). Overall in Tajikistan, 66% of households reported boiling their drinking water, with the highest proportion being in Dushanbe (88%) and the lowest in Badakhshan (5%). Households that do not boil their drinking water were asked the reason (**Fig. 59**). Overall in Tajikistan, 63% of households who do not boil their drinking water think that their water is clean. Another 24% of households cannot afford the required fuel. Furthermore, 9% responded that they "prefer fresh water" and 1% claimed that they do not have the time to boil their water. Other answers included not knowing why and not wanting to boil one's drinking water.

Household Fuel

As shown by **Figure 60**, the main sources of household fuel in Tajikistan (by percentage of household answers) are: firewood 43%, electricity 28%, cow-dung 14%, gas 9%, cotton bush 4% and kerosene, coal and diesel each with less than 1% of household answers. **Figure 61** shows the top three answers by region. As can be seen, the majority of households in the regions of Kulob and Leninabad use firewood as their main source of fuel. Compared to other regions, higher proportions of Dushanbe and Badakhshan households use electricity as their main source of fuel. And, as opposed to all other regions, a relatively high proportion of Dushanbe households (28%) rely on natural gas as their main source of fuel. The highest proportion of households using cow-dung as their primary source of fuel is that of Qurghonteppa (22%).

Transportation

Figure 62 looks at the average number of various transportation means owned per 100 households. For Tajikistan as a whole, on the average every 100 households own a total of 14 passenger cars, 12 horses and donkeys, 9 bicycles, 2 trucks, 2 motorbikes and 1 tractor. Looking at regional differences, we can see that households in Kulob own the most number of animal transport, with 37 donkeys and horses per 100 households. Households in Badakhshan and RRS have the most number of passenger cars, with 18 cars per 100 households. Households in Qurghonteppa own the most number of bicycles at 15 per 100 households, and those in Leninabad have the most motorbikes, at 4 per 100 households.

Shelter

All households were asked about the condition of their home. In line with that, the number of a given household's intact rooms in addition to their approximate dimensions were queried (**Fig. 63**). It was found that for Tajikistan, on the average, each household is living within 3.6 rooms. And the per capita sheltered living area for Tajikistan is 7.9 m² (square meters). When comparing regions, it was found that households in RRS have the most number of rooms at 4.3, and those of Badakhshan the least at 2.6 rooms per household. And on a per capita basis, Badakhshan has the most sheltered living area at 10.9 m² per household member and Kulob the least at 6.1 m². Regions with the highest proportion of residential units lacking doors or windows are Qurghonteppa at 4.1% and Kulob at 3.8%. Other regions' proportion of households lacking doors or windows are: Dushanbe 2.2%, Leninabad 1% and RRS and Badakhshan with no surveyed household lacking doors or windows.

The 1992-93 war resulted in an estimated 35,000 homes destroyed and scores more damaged. The Qurghonteppa zone of Khatlon province is considered to have been the epicenter of much of the violence and destruction. Many of the returning refugees and IDPs have had to rebuild their homes which were either wholly or partially destroyed as a result of the armed conflict. A recent survey of returnee households of Khatlon province found that although on the average the returnee households have residential properties of 0.13 ha, being 40% or 370 m² larger than non-returnee households, their total number of good or inhabitable rooms are less. Recent returnees (those households who came back to their permanent places of residence after the signing of June 1997

Fig. 59
Reason Given for Not Boiling Drinking Water
 (n=367)

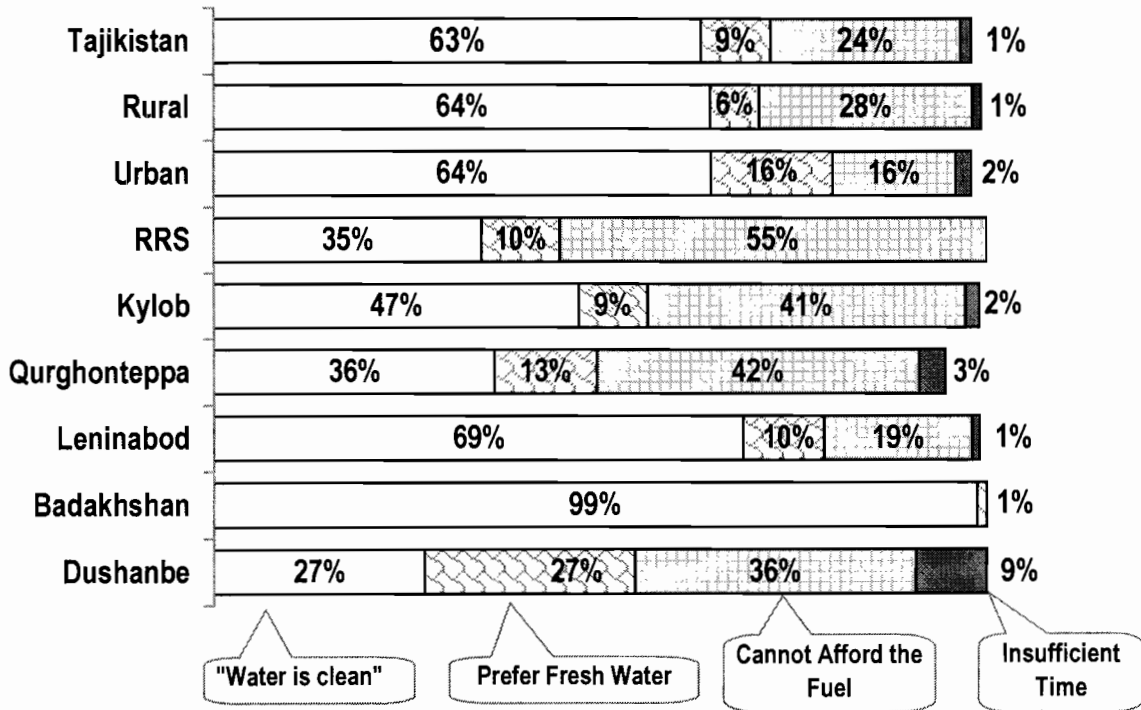


Fig. 60
Main Source of Household Fuel in Tajikistan
 (% of households; n=1,015)

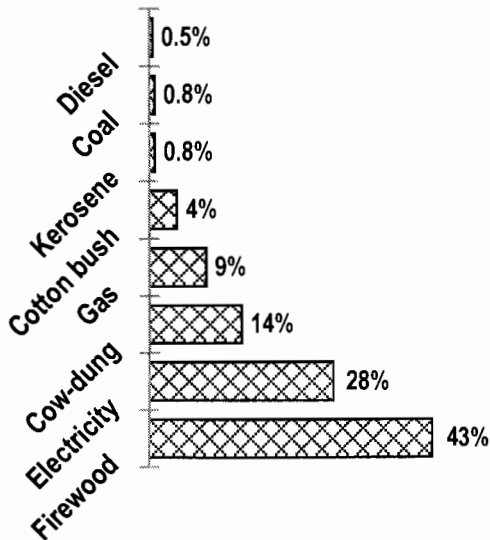


Fig. 61
Main Source of Household Fuel by Region
 (top 3 answers; n=1,015)

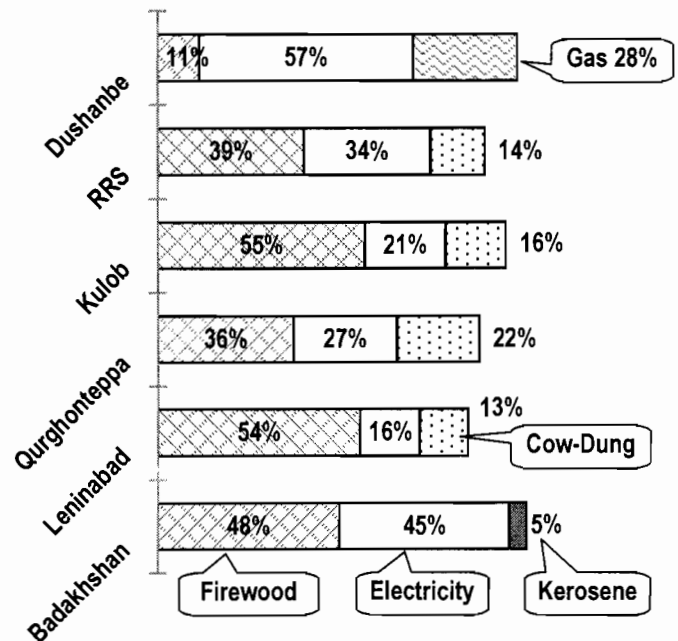
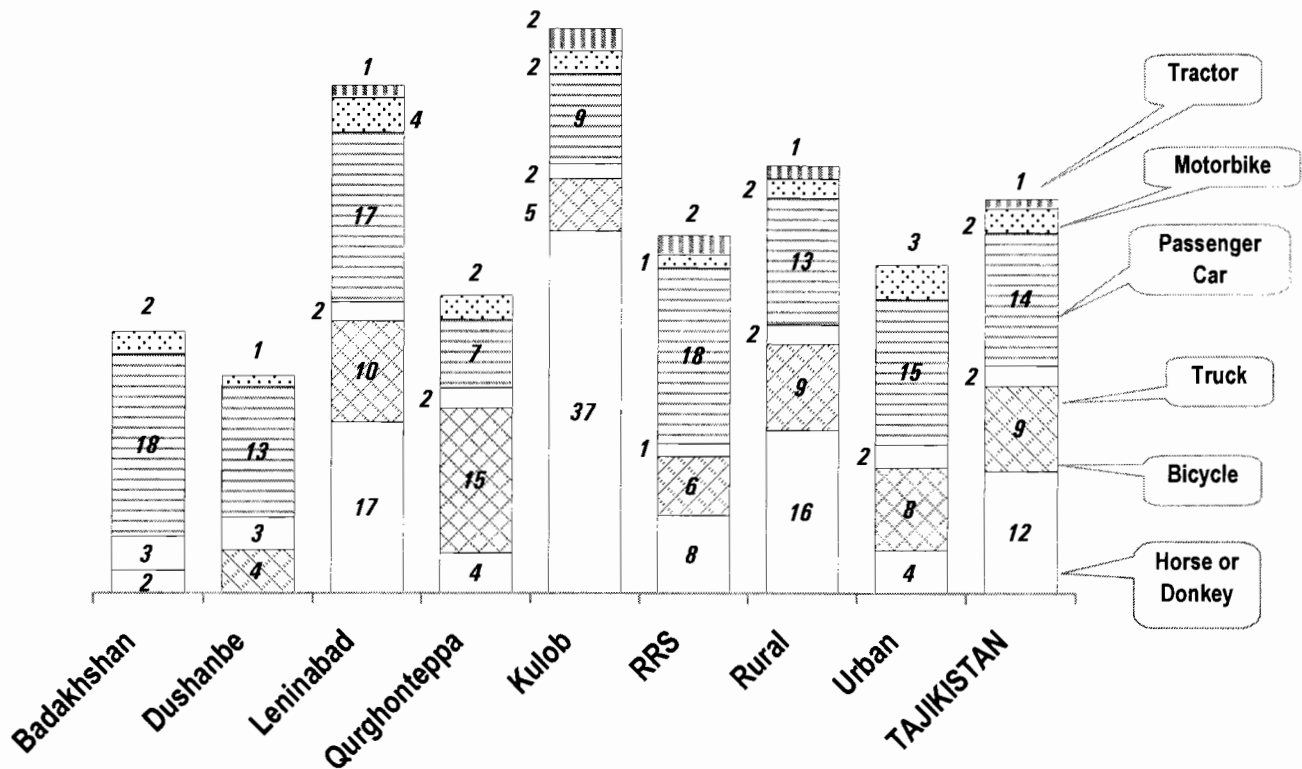


Fig. 62
Household Transportation
 (quantity per 100 households; n=1,020)



Mavlononazar is a 36 year-old mathematics teacher in the village of Tavdem in Roshtqala district of Badakhshan province. He and his wife, Oigul, have 2 boys and 1 daughter, all of whom attend school. The family has a 0.08 ha vegetable garden attached to their house in addition to 0.10 ha dehqan farm that they've been given life-time rights to since 1995. To till their land, the family uses an ox owned by the village. According to Mavlononazar, the family produced 450 kg of wheat and 3.6 tonnes of potatoes from their dehqan farm last year. In addition, they produced 350 kg of vegetables from their home garden. They had borrowed 80 kg of potatoes from the Aga Khan Foundation and upon harvest repaid the loan with an additional 20 kg of potatoes as interest. Mavlononazar claims that the local government is demanding TJR12,000 (\$15) of taxes per year for the family's dehqan farm, which he thinks is too high.

Though there are 15 fruit trees on the family's dehqan farm, the village government forbids the family to collect the fruits, unless the household buys the trees for TJR12,000 each--totaling TJR180,000 (\$215). The main farming constraint, according to Mavlononazar, is the lack of machinery. The family owns one milk cow with a calf. The household's main fuel is electricity, though in the winter they use firewood. On a weekly basis, the household consumes, among other things, 18 kg of wheat, 8 kg of potatoes, 7 liters of milk and 1.5 kg of rice. The family benefits from the Aga Khan Foundation. Last year, they received 130 kg of wheat flour, 25 kg of cooking oil, 20 kg of dry milk, 20 kg of sugar, 25 kg of lentils, 50 kg of beans and 10 pieces of soap. In addition, they received 33 kg of flour, 5 kg sugar and 3 pieces of children's wear courtesy of the Red Cross. Through the AKF, the family can also purchase subsidized medicine. Mavlononazar's household has an estimated total monthly salary of TJR10,800 (\$13). The family also receives an average of RR500,000 (\$80) per year from a brother-in-law who is a migrant worker in Russia.

Mavlononazar claims that the main problems of his village are insufficient food and electricity. "We are thankful to the Aga Khan Foundation," he said. "Our mainstay depends on them. If they were not here, I don't know what would have been our fate."

Olimjon, his wife, his mother and three children live in the village of Urmetan in the Aini district of Leninabad province. In 1991, he was a journalist for a district paper. When the paper closed, he became a teacher of Tajik literature in the same school that his three children attend. Olimjon claims that the main problems of the school system in their area are the shortages of school material and educated teachers.

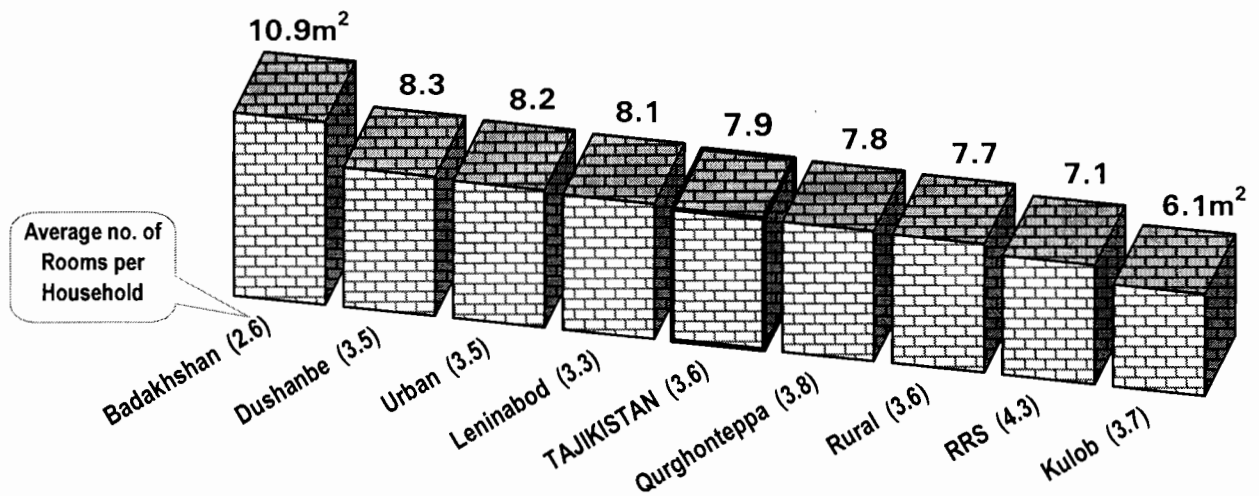
Olimjon's household has a 0.04 ha plot of vegetable garden attached to its house. There, they plant onions, tomatoes and potatoes. Last year, he estimates that the family harvested 270 kg of vegetables. They also have several apricot trees from which they received nearly 250 kg of harvest. After having taken out the apricot seeds, the family sold an estimated 150 kg of apricots last year earning them TJR40,000 (\$48). They also sold some of the apricot seeds—which are a good source of protein—and stored the rest for the family's winter consumption. Olimjon usually takes the household's produce by bus to Penjikent's main bazaar to sell wholesale.

In addition to the vegetable garden, Olimjon's household utilizes about 0.04 ha of mountainous public land in which they have been planting clover for animal feed. Last year that plot of land produced about 750 kg of feed. The household has 10 goats, one milk cow with a calf, 10 sheep, one donkey and a dog. Last year the family slaughtered 3 sheep and 2 goats for their own consumption (estimated value TJR174,000 or \$209) and bartered 3 sheep in return for 12 sacks of 50 kg wheat with an estimated value of TJR114,000 (\$137). The main problem of animal husbandry for the household is the lack of sufficient grazing area or range land.

Olimjon's mother suffers from asthma. They have been having a hard time finding affordable medicine for her. Olimjon claims that their monthly household income is about TJR30,000 (\$36) and varies from month to month depending on animal and produce sales. In the past months, the family has borrowed 100 kg of wheat from their neighbor. Olimjon claims that the main problem facing their village is the lack of timely payments of salaries. He thinks that the village can be helped by land reform through the elimination of the kolkhoz system, which he likens to slavery. Olimjon would like to see Tajikistan's economy in the future to resemble that of Iran.

Fig. 63
Per Capita Habitable Shelter Area

(n=1,020)



peace accord) were found to have on the average 1.9 inhabitable rooms per household, earlier returnees 2.5 rooms and non-returnees 3.9 rooms (Foroughi 1998).

Female-Headed Households

The economic and political turmoil is affecting the women of Tajikistan disproportionately. It is safe to posit that, as a whole, women have been the primary victims of Tajikistan's civil war. In addition to the approximately 25,000 war widows, many of whom found themselves as sudden heads of households, responsible for the mainstay of family members, thousands more had followed their husbands, brothers and sons into exile either as IDPs or refugees. It has been written that in the case of Tajikistan, there are only "few cases where women have become refugees out of their own political convictions" (Tadjbakhsh 1996).

As noted earlier, inferring from our survey, 15% of households in Tajikistan are headed by women (Fig. 9) and 14% have female primary earners (Fig. 10). To shed more light on female-headed households, the variable "gender of household head" was crosstabulated with selected other variables. The following statistically significant relationships were found (z-tests at $\alpha = 0.10$):

- A lower proportion of female-headed households is rural (58%) as compared to male-headed households (68%);
- A lower proportion of female-headed households is Tajik (73%) as compared to male-headed households (79%);
- Female-headed households are on the average smaller (7.3 members) compared to male-headed households (8.3 members);
- Female-headed households have less agricultural land in every category. They have on the average 57% less total arable land than male-headed households (0.15 ha vs. 0.35 ha). They have 19% smaller home gardens (0.046 ha vs. 0.057 ha), 51% smaller presidential plots (0.017 ha vs. 0.035 ha), 39% smaller dehqan farmland (0.038 vs. 0.062), substantially smaller rented agricultural land (0.03 ha vs. 0.18 ha), and half the irrigated land as compared to male-headed households (0.01 ha vs. 0.02 ha);
- Though this survey did not inquire about the gender of the household head in 1991, currently female-headed households reported having had smaller areas of agricultural land for 1991 as well: 0.05 ha as compared to 0.06 ha for male-headed households. And since 1991, on the average, female-headed households have gained on the average smaller area of land (0.01 ha) as compared to male-headed households (0.03 ha). Since 1991, on the average, male-headed households have seen 405% increase in their agricultural landholdings vs. 206% for female-headed households;
- A lower proportion of female-headed households has farm animals and those who do, have less number of animals compared to male-headed households. Only a third (34%) of female headed households own cows vs. more than half (54%) of male-headed households. On the average, female-headed cow-owning households have 1.5 cows vs. 1.7 cows for male-headed households. Only 20% of female-headed households own sheep or goats vs. 30% of male-headed households, and those who do, own slightly less per household (4.6 heads of sheep and goats vs. 4.9 heads for male-headed households);
- A lower proportion of female-headed households (10%) owns means of transport (animal or machine) as compared to male-headed households (20%);
- A higher proportion of female-headed households sold household items during the past year (35%) compared to male-headed households (28%);
- Female-headed households in the past year borrowed on the average 40% less money per month (TJR2,548 or \$3) compared to male-headed households (TJR4,424 or \$5);
- A lower proportion of female-headed households is food secure (62%) compared to male-headed households (69%). However, there is no statistically significant difference between the level of food adequacy of female- and male-headed households;
- The relatively even levels of food adequacy among female- and male-headed households, despite the discrepancy in their levels of food security may be due to the fact that a higher

proportion of female-headed households is recipient of humanitarian assistance (49%) as compared to male-headed households (37%);

☑ Female-headed households have monthly expenses, on the average, of TJR48,961 (\$59) which is 15% less than that of male-headed households;

☑ With or without humanitarian aid, female-headed households on the average have lower monthly incomes as compared to male-headed households. The average estimated monthly income of female-headed households--humanitarian aid included in the sum--is TJR38,845 or \$47. That is 30% lower than the average monthly income of male-headed households.

Household Expenditures

In order to determine average household expenses, a variety of queries on spending habits were put forward to the households (refer to Annex I for details). The overall expenses of households were grouped into the eleven general expense categories of: food, "resource-intensive events" and ceremonies (such as weddings, funerals, memorial services--*khodaie*--and circumcision rituals), medical and hygiene expenses, clothing, transportation, farming inputs, utilities, purchase of animals and household items, fuel, savings and education.

Figure 64 looks at the breakdown and regional comparison of the calculated estimates of average monthly household expenditures. For Tajikistan as a whole, the average household expenditures were found to be TJR56,400 (\$69) per month. Rural households were found to have 15% less monthly expenses compared to urban households. Households in Dushanbe were found to have the highest average monthly expenditures at TJR75,300 (\$91) and households in Qurghonteppa and Badakhshan, the least average monthly expenditures, at equivalents of \$59 and \$58 respectively. As depicted by Figure 64, for Tajikistan, it was found that on the average three-quarters (75%) of the household expenditures are spent on the three expense categories of food (53%), health and hygiene (11%) and ceremonies (10%).

Household Income

To estimate household income, we took into consideration that most household economies in Tajikistan involve non-monetized, yet productive activities which technically may not be recorded as income and usually are not taken into consideration as part of a nation's GDP through the presently used system of national accounts. A study of 15 national economies has found, however, that non-monetized activities are potentially worth a significant part of the GDP (Goldschmidt-Clermont and Panossin-Aligiskis 1996). This is presumably more so in rural areas where a typical household produces much of its own dietary and other needs.

To measure the average household income, a variety of inquiries were made from households. During data analysis, the various sources of household income were grouped into the seven general categories of: salaries and pensions, business revenues, household agricultural production (crops and animals), borrowing, remittances, humanitarian assistance and other. As depicted by **Figure 65**, the average monthly income of households in Tajikistan was found to be TJR52,702 (\$64). Rural households were found to have on the average a monthly income of TJR51,202 (\$62), that being 8% less than urban households. Comparison of regions revealed households in Dushanbe to have the most income, at an average of TJR61,816 (\$75) per month, and those of Qurghonteppa the least, at an average of TJR45,693 (\$55) per household per month. (A State Statistical Committee survey of households conducted in January to March 1998 found the average monthly income to be TJR4,443 per family member or roughly \$48 for an average household.²²)

²² ITAR-TASS news agency as reported by BBC Monitoring Service, July 7, 1998.

Fig. 64
Breakdown of Average Monthly Household Expenses
 (n=1,009)

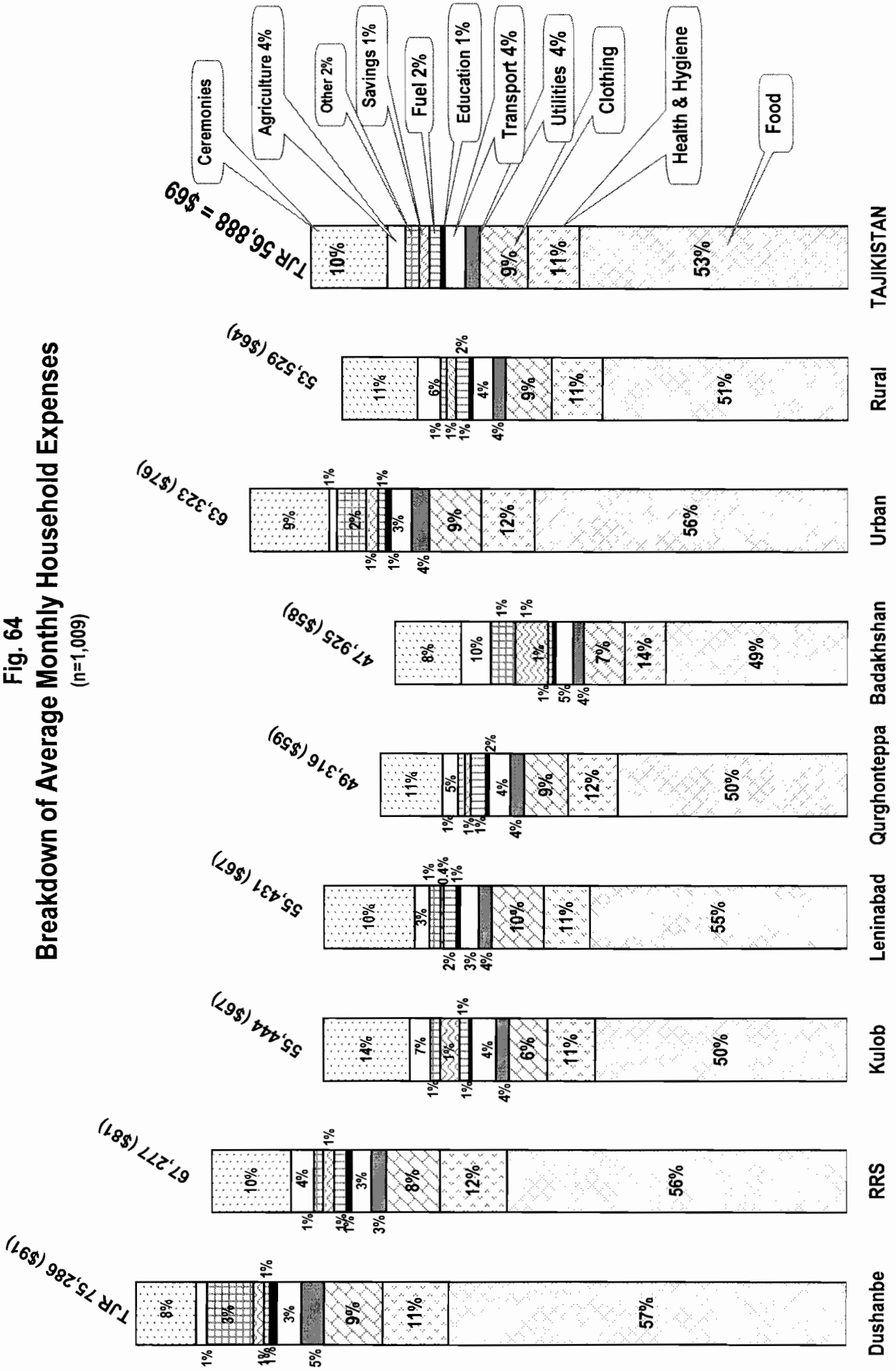
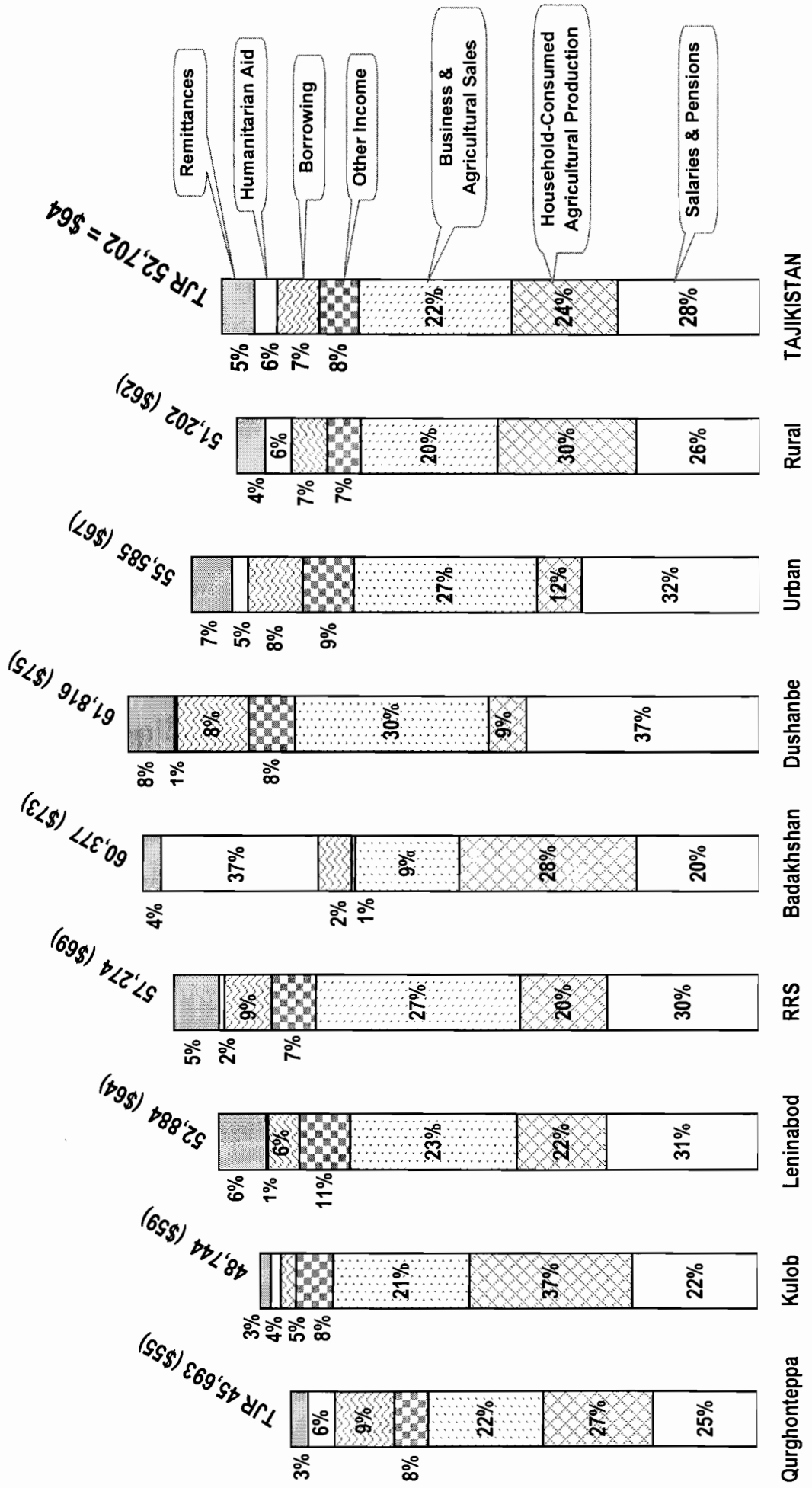


Fig. 65
Breakdown of Average Monthly Household Income
 (n=1,020)



When looking at the breakdown of average household income for Tajikistan, as depicted by Figure 65, salaries and pensions on the average were reported to be TJR13,836 (\$17) and constituting 28% of a typical household's income. Unfortunately our survey did not distinguish between government and private employment (which in retrospect would have been important), however, it is safe to posit that since independence, there has been a slow but gradual shift toward private enterprise and opportunities of employment therein. And in the far majority of cases, a higher formal salary is undoubtedly received in the private sector. According to the State Statistical Committee, the average government salary in Tajikistan for the month of July 1998 was TJR8,802 (\$10) and the average pension stood at TJR2,509 (\$3) per month (State Statistical Committee 1998).

Based on the questions asked from the households, the average amount of household agricultural production, which is consumed, by the household itself was estimated to be TJR10,399 (\$13) per month, equivalent to about a-quarter (24%) of a household's income. This included production of agricultural crops and animal husbandry. Furthermore, sale of such household agricultural commodities and income from general bazaar sales were found to constitute on the average 22% of a household's income. If for any reason the household's income or a portion therein were not reported in broken down categories, but as lump sum, we included it under the "other income" which on the average constituted 8% of a household's income. As further shown by Figure 65, for Tajikistan, other sources of household income and their average share of monthly household income were found to be: borrowing 7%, receipt of humanitarian aid 6% and remittances 5%.

About 11% of households in the country reported producing non-food items from their homes. Part of the household "business sales" depicted above are from such activity. Of the households who produce non-food items, 6% claimed to be involved in dressmaking, 4% in handicrafts and a small percentage in weaving and providing of construction goods or services. **Figure 66** looks the various regions' production of household non-food items. As can be seen, the largest proportion of households reporting production of non-food items is that of Leninabad (14%) and the lowest in Kulob (7%).

Income Distribution

Table I lists the Gini indices of the sample population. (As stated earlier in this report, the Gini index measures the degree of inequality of income distribution among a given population. A Gini index of 100% represents perfect inequality). Based on our survey, Tajikistan's Gini index is calculated at 47%.²³ When comparing the regions surveyed, Badakhshan has the smallest Gini index (44%), indicating that it has the least inequality of household income distribution in the country.

Figure 67 depicts household income distribution in quintiles for the sample population. Extrapolating from our survey, the lowest 20% of households in Tajikistan (in terms of income) together hold a mere 3.9% of all household income. And the richest 20% hold 51.9% of all household income. (We also found that the lowest 10% of households holds a mere 1.2% of all household income in the country and the highest 10% holds 34.4% of all household income.)

Figure 68 shows the calculated per capita annual income deduced from the household level data. For Tajikistan as a whole, we found the per capita income to be equivalent to \$111 per person per year. Dushanbe has the highest per capita income at an equivalent of \$170 per year and Kulob the lowest at an equivalent of \$81 per year. Rural households have a per capita income equivalent to \$95 per year, and urban folk have 50% higher incomes at \$143 per person per year.

Borrowing

Households were asked if they had borrowed money or food commodities in the past 12 months (**Fig. 69**). A total of 44% of the whole survey population claimed that they did. The highest

²³ In 1993, Russia had an estimated Gini index of 50% and Kazakhstan 33% (World Bank 1997-b).

Fig. 66
Household Production of Non-Food Items
 (in % of households by region; n=1,020)

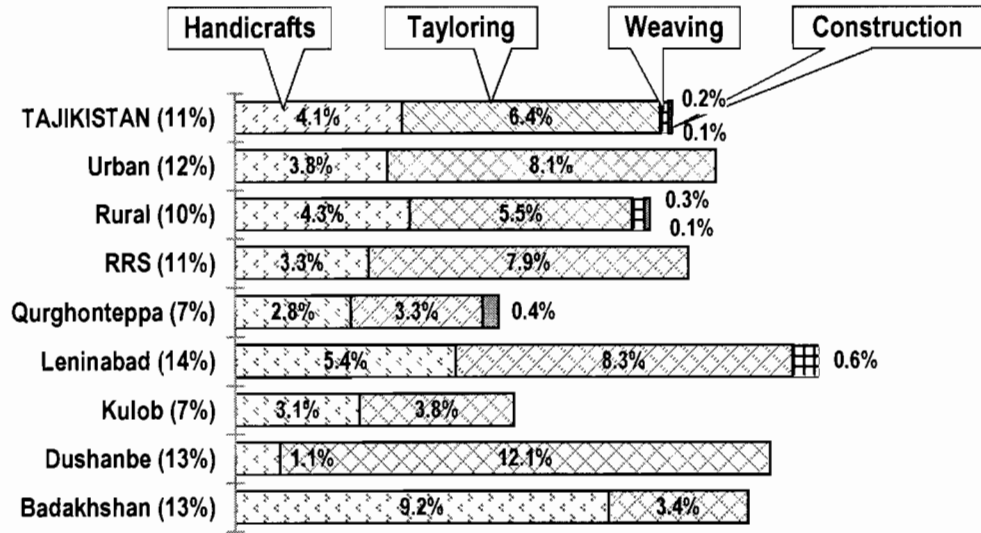


Fig. 67
Household Income Distribution by Quintiles
 (Ratio of highest to lowest quintiles = 13.3)
 (n=1,020)

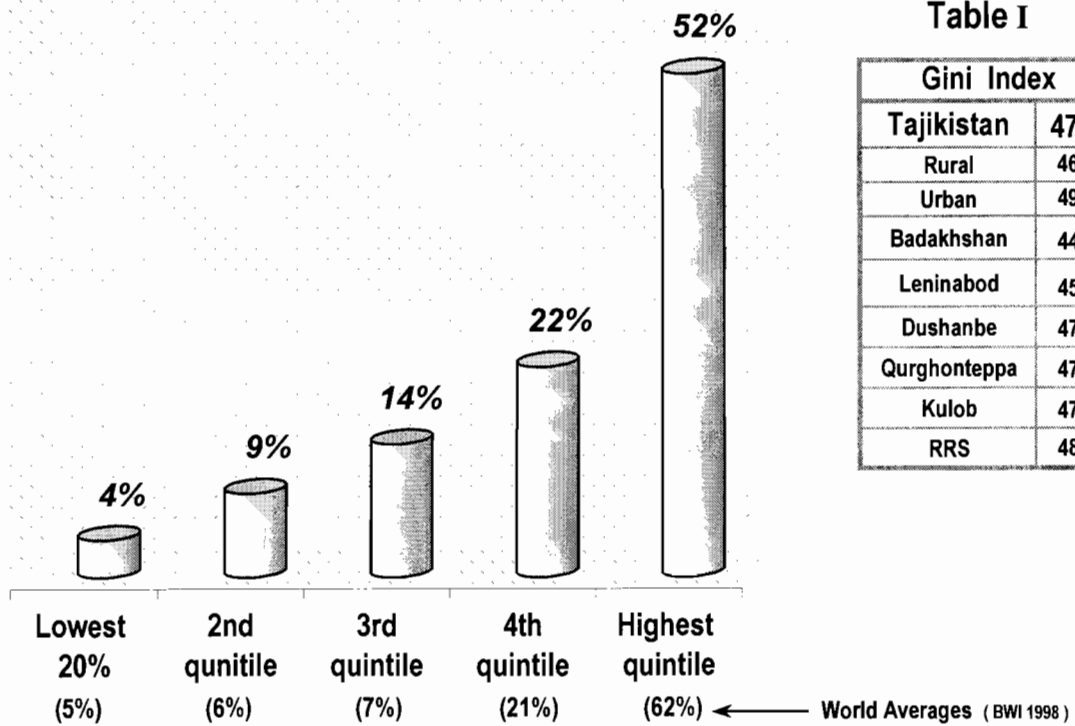


Table I

Gini Index	
Tajikistan	47%
Rural	46%
Urban	49%
Badakhshan	44%
Leninabod	45%
Dushanbe	47%
Qurghonteppa	47%
Kulob	47%
RRS	48%

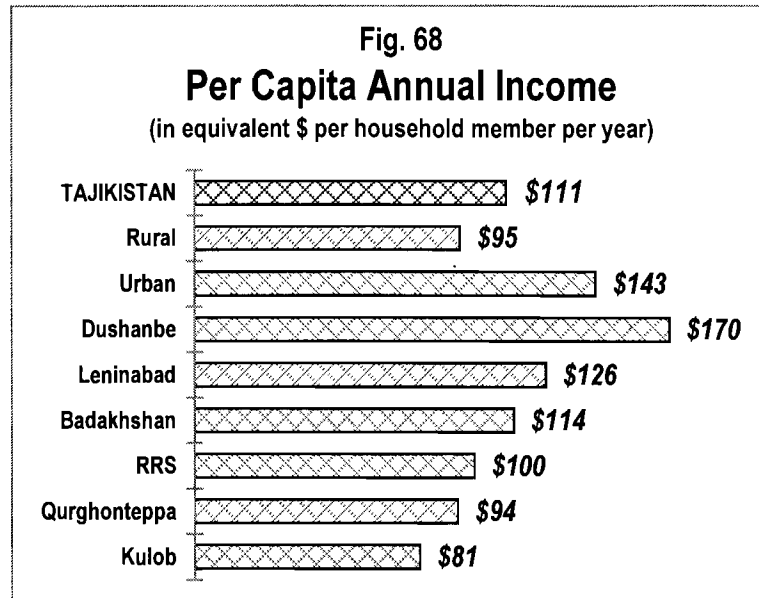


Fig. 69
Borrowing and Source
 (n=1,020)

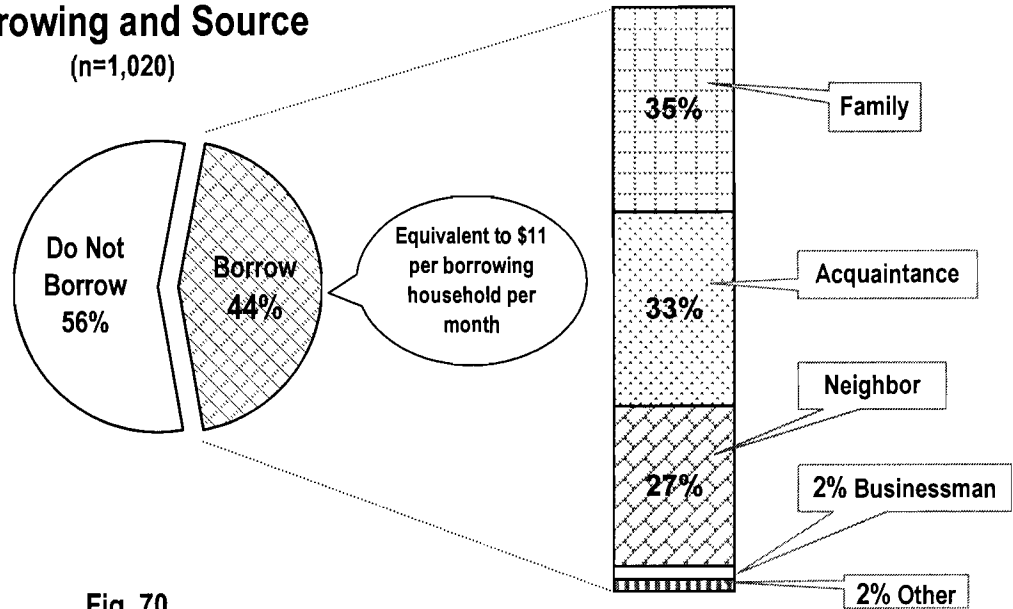
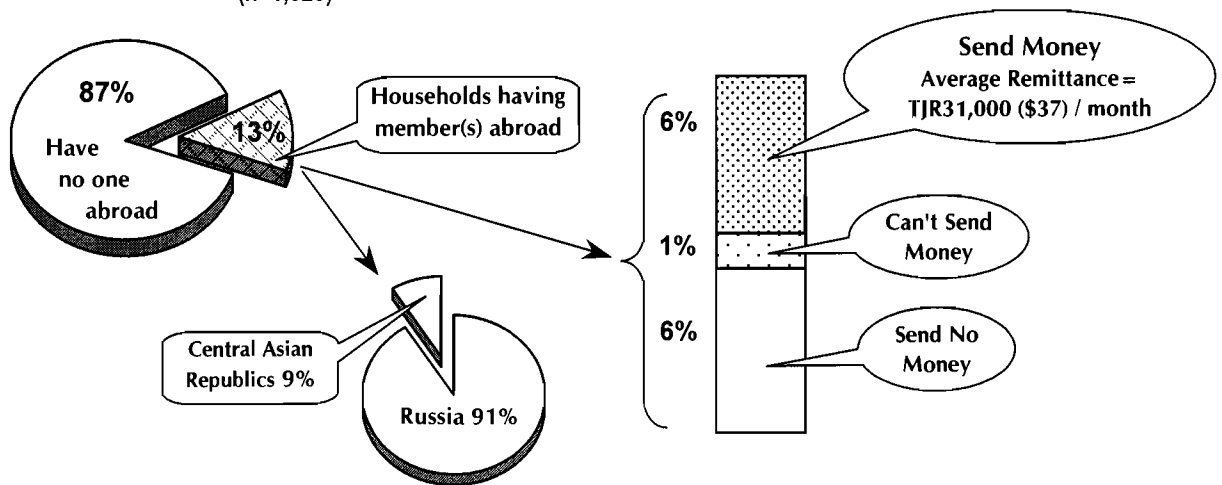


Fig. 70
Remittances from Abroad
 (n=1,020)



proportion of borrowing households were found to be in RRS (55%) and the lowest in Badakhshan (24%). As a whole in Tajikistan, among the households who did borrow, the primary source of borrowing were claimed to be: family (35%), acquaintances (33%), neighbors (27%) and businessmen (2%). Other responses included: employer (1%), humanitarian agency (1%) and in only one case was the source claimed to be a bank (0.2%). The far majority (94%) of households who borrowed did so in the form of money and the rest primarily in wheat or wheat flour. The average amount borrowed was calculated to be TJR8,929 (\$11) per month per borrowing household. Borrowing households in Dushanbe did so the highest at an equivalent of \$18/month, and those in Kulob the least at an equivalent of \$4/month.

Remittances

It was inquired from households whether they have any members abroad, and if so whether the household receives remittances from them. **Figure 70** summarizes our inquiry. A total of 13% of the households claimed to have at least one member abroad. Of those households, nine-out-of-ten have a member working in Russia and the rest in the neighboring Central Asian republics. Six percent (6%) of the households claimed that the individual or individuals abroad do not send remittances. One percent claimed that even though the household member abroad would like to send remittances, he or she can not (due to the problems involved in money transfer or transport). And 6% of households claimed to receive remittances equivalent to an average of TJR31,000 (\$37) per month. Extrapolating from our data, we can conclude that for Tajikistan--which is made up of approximately 744,000 households²⁴--an estimated 42,500 households have at least one member abroad. And on the whole, household members abroad send their families in Tajikistan at least an equivalent of \$19 million a year.

Coping Strategy

As part of determining coping strategies during the ongoing economic turmoil, households were asked how they protect their local currency savings from inflation. As depicted by **Figure 71**, nearly three-quarters (73%) of respondents claimed not to have any savings at all. Another 17% claimed that they purchase flour and other necessary goods for storage as their primary means of protection against inflation. Four percent (4%) said that they would or have purchased cows, 3% claimed to covert their Tajik rouble savings into dollars and 1% said that they convert their savings into Russian roubles as their primary means of protection against inflation. Other answers included: usage of money for wedding ceremonies, purchase of house and spending on business.

Furthermore, we asked households what they do or would do if their income is insufficient. Their responses are depicted by **Figure 72**. For Tajikistan as a whole, households claimed that they would: borrow money (28%), sell household possessions (15%), sell the family cow (13%), rely on family and friends (12%), and find better paying work or go to Russia or work harder (12%). Another 7% claimed that their income currently suffices and 4% claimed not to know what they would do.

Households were asked about their opinion on the number of children newly-wed couples should have under the current economic turmoil of the country (**Fig. 73**). For Tajikistan as a whole, the average number of children recommended by the households was 3.0. The most number of children recommended was an average of 3.4 by households in RRS and Kulob, and the lowest number was by households in Badakhshan recommending on the average 2.6 children per couple.

Village and Neighborhood Problems

Households were asked to identify the main problem facing their village or neighborhood. **Figure 74** looks at the top responses. For Tajikistan, the reported main village or neighborhood problems were: food security (31%), potable water (18%), unemployment (16%), electricity (13%)

²⁴ Based on a population of 6.1 million and average household size of 8.2 members (Fig. 17).

Fig. 71
Protection of Savings Against Inflation
 (n=1,018)

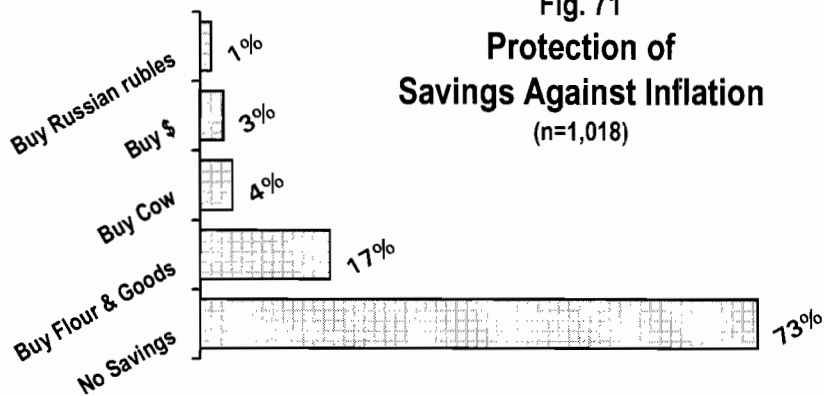


Fig. 72
Coping Strategy
 (Top four answers by region; n=1,018)

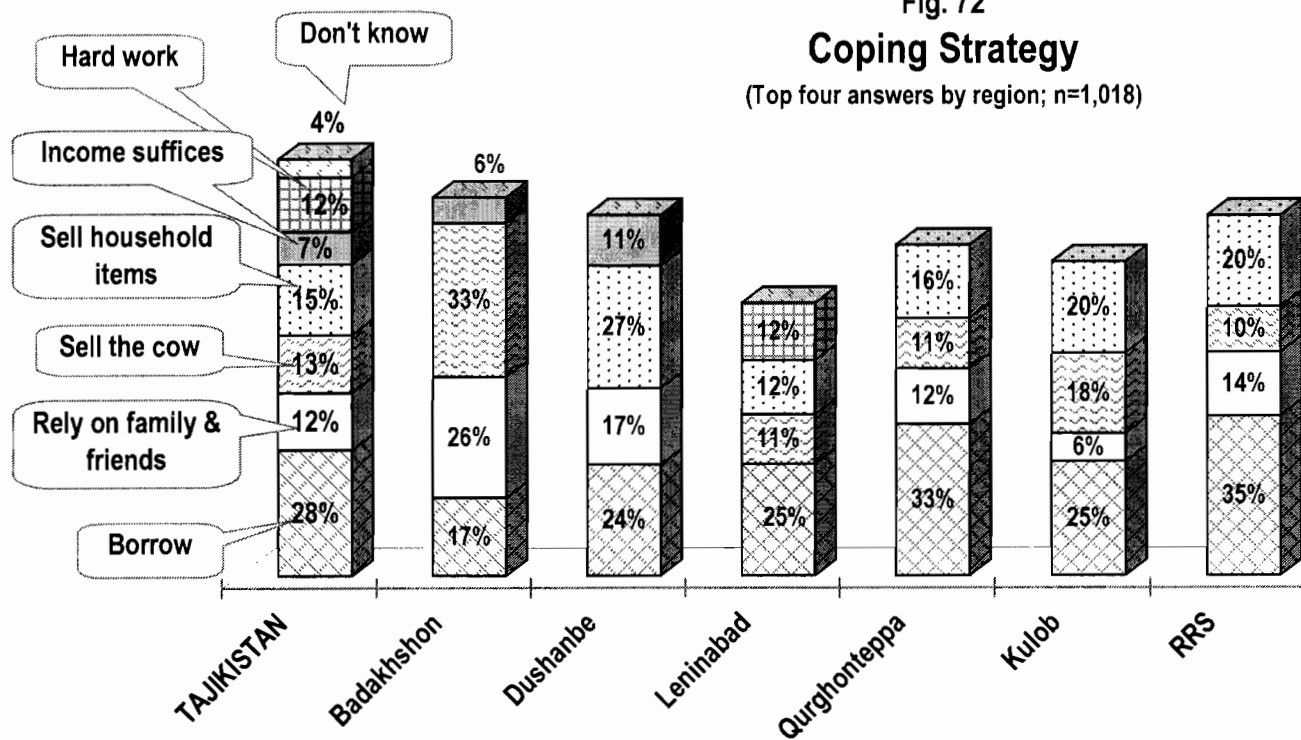


Fig. 73
In your opinion, in the current economic situation, how many children should young couples have ?
 (n=1,009)

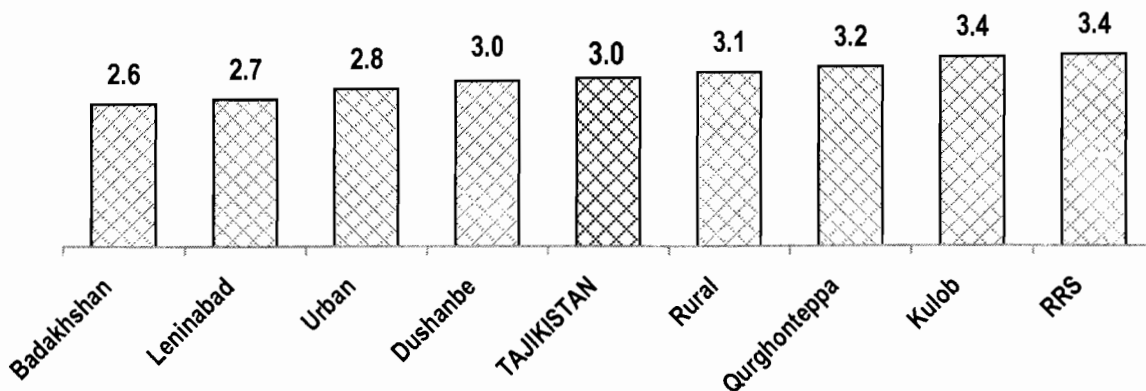


Fig. 74
What is the main problem of your village or neighborhood ?
 (top four answers; n = 1,014)

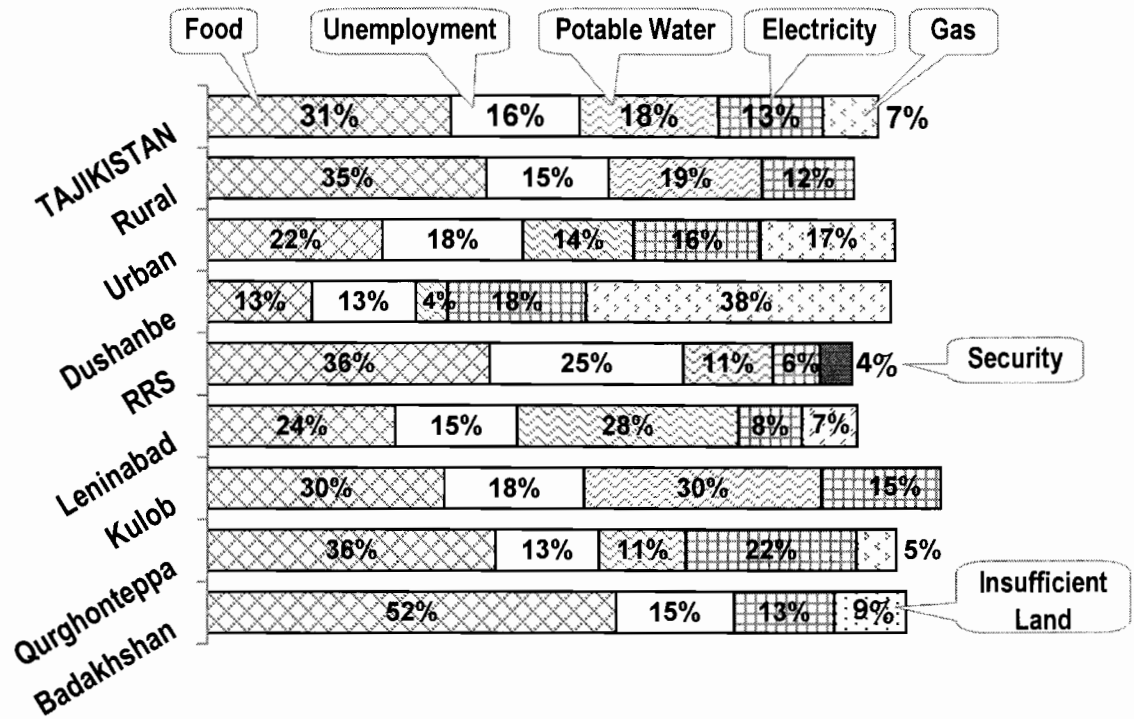


Fig. 75
How do you think your village or neighborhood can be developed ?
 (top four answers; n = 966)

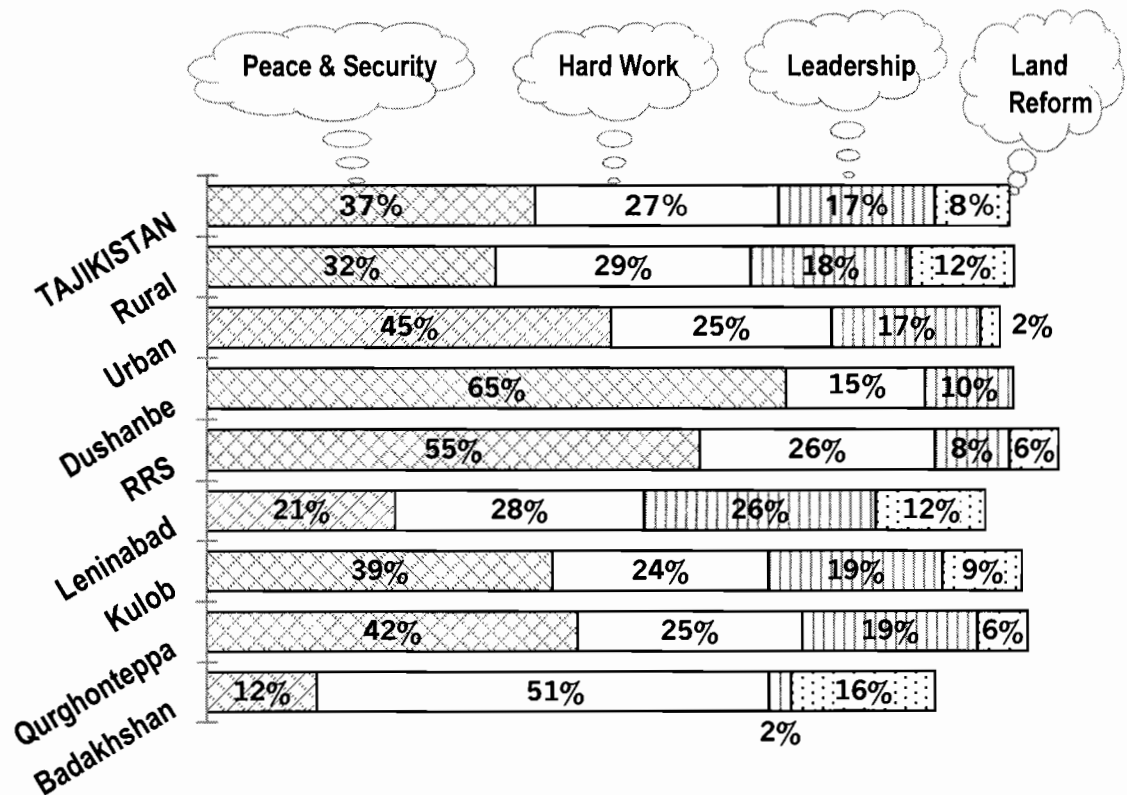
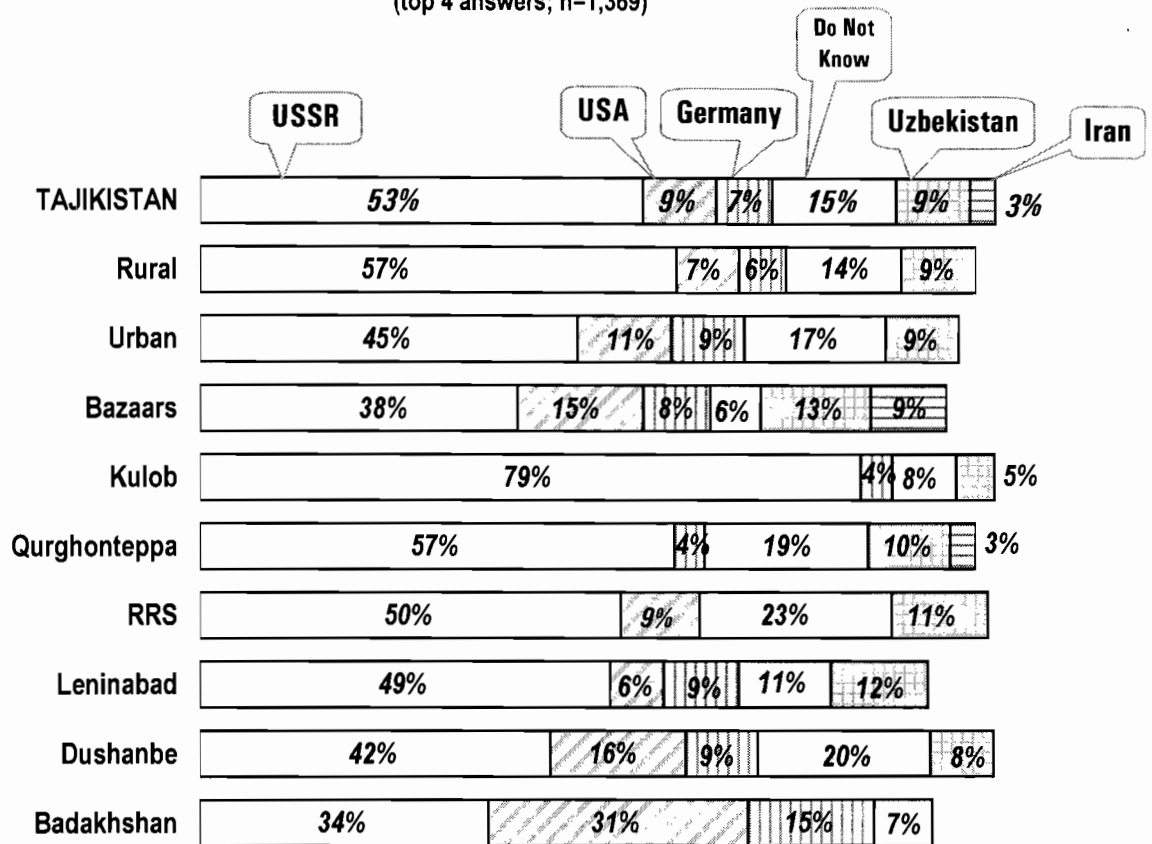


Fig. 76
In your opinion, Tajikistan's economy would better resemble that of which country in the future?
 (top 4 answers; n=1,369)



Nozanin is 29 years old and lives in the city of Kulob. She lost her hearing as a result of an accident when she was 4. She married a hearing impaired man, Muhammad, when she was 18 and he 19. Despite their physical disabilities, during the Soviet era they had a good life, with sufficient salaries from their state jobs to cover all their immediate needs. Due to economic turmoil, as early as 1990, Nozanin and her husband decided to give away one of their children, to be adopted by a distant relative. They haven't seen that child ever since. They currently have six children living with them, the smallest being twins, born this spring. The couple and their children live in one small (4m x 3m) room allocated to them by Muhammad's employer. Based on this arrangement, Muhammad receives no income from the company he works for.

Due to their physical handicap, both Nozanin and Muhammad receive social security payments from the government, totaling only TJR996 (\$1.20) per month. The couple also receives assistance from Nozanin's parents at TJR2,000 (\$2.40) a month. Aside from this, they do not have other sources of income. The household's daily subsistence consists of bread, potatoes, cooking oil and homemade tea of collected vegetables and wild mint. Like the majority of households in Tajikistan, the couple bakes its own bread, but unlike most, their bread is made up of 40% corn. Nozanin gathers cherries and makes a sort of putting that can be used as sugar.

The couple receives minimal international humanitarian aid in the form of flour, cooking oil, sugar, canned meat and rice. They were to receive this on quarterly basis, though they missed out on the last distribution. "They knocked on our door, but since both myself and my husband are hearing impaired, we did not open the door and were subsequently omitted from the village distribution roster," said Nozanin. (At this point Nozanin's mother began to cry.) "How are my daughter and her family suppose to live now. They depended on the humanitarian assistance. That too is taken away," she said. The household was asked: "With the current economic conditions, in your opinion how many kids should young couples have?", Nozanin's mother replied: "As many as possible. Each child's lot is in the hands of God." The couple was offered land for plowing, but due to lack of funds they were not able to purchase the means of production. Their land was subsequently taken from them.

and natural gas (7%). Other responses for Tajikistan were: lack of funds (3%), insufficient land (2%), lack of irrigation (1%) and concern for security (1%).

When comparing regions, households in Badakhshan have the highest concern for "food" security, with 52% of them identifying it as the main village or neighborhood problem and Dushanbe residents the least, with only 13% identifying food security as their main neighborhood problem. The highest proportions of households identifying "potable water" as the main village or neighborhood problem were those of Kulob (30%) and Leninabad (28%) and the lowest those of Qurghonteppa and RRS (11% each). "Unemployment" or "jobs" as the main village or neighborhood problem saw its highest proportion of answers in RRS with one-quarter of that region's surveyed households identifying it. Problems with "electricity" had its highest proportion of answers among households in Qurghonteppa (22%) and the lowest in RRS (6%). Insufficient or lack of "natural gas" had the highest proportion of responses among Dushanbe households, more than a-third (38%) of which identified it as their main neighborhood problem. The far majority of residents of Kulob and Badakhshan have never had access to natural gas. Consequently no household in those regions identified "natural gas" as their main village or neighborhood problem. The highest proportion of households identifying "insufficient land" as their main village or neighborhood problem was in Badakhshan (9%), and the highest proportion of households identifying "security" as their main village or neighborhood problem was in RRS (4%).

Households were also asked the question: "How do you think your village or neighborhood can be developed?" As can be seen by **Figure 75**, for Tajikistan as a whole, more than a-third (37%) of the households thought that "peace and security" are the most important factors necessary for community development. Another 27% responded that "hard work" (*mehnat* in Tajik) is the key to development. A further 17% thought that good "leadership" is necessary and 8% thought that "land reform" is the necessary component for development.

When comparing regions, the highest proportion of households identifying "peace and security" as the needed component for developing their village or neighborhood was in Dushanbe (55%) and the lowest in Badakhshan (12%). "Hard work" saw the highest proportion of responses among households in Badakhshan (51%). Good "leadership" saw the highest proportion of responses in Leninabad (28%) and "land reform" saw its highest proportion of answers among households in Badakhshan (16%).

Due to the continuing economic crisis, throughout the country there is nostalgia for the "good-old Soviet days", a period when jobs, inputs and reasonably priced food were guaranteed. In the Varzob village of the RRS, one head of household told us: "In my family there are 8 children. Their diet consists primarily of tea and bread since we can't afford anything else. I wish to see the return of the life we had under the Soviet Union."

We asked households to select a country which they would prefer the economy of Tajikistan to resemble in the future. The choices read to the households were: USSR, United States, Iran, Germany and Uzbekistan. As seen by **Figure 76**, for Tajikistan as a whole, 53% identified the type of economy they wish the country to resemble in the future as that of the former USSR. Only 9% each identified the United States and Uzbekistan as the economic model they'd like Tajikistan to pursue. Another 7% chose Germany and 3% Iran. When comparing regions' responses for USSR as Tajikistan's economic future, households in Kulob ranked the highest (79%) and those in Badakhshan the lowest (34%) □

Bazaar Survey Results

Based on data from Tajikistan's State Statistical Committee for the first eight months of 1998, it can be interpolated that for the whole year, the volume of retail trade turnover in the country will be an estimated equivalent of \$320 million dollars. A large part of that sum will have been conducted by micro-, small- and medium businesses, the far majority of which conduct their transactions in the bazaars scattered throughout Tajikistan.

To fulfill a major requirement of this study, a total of 349 half-hour interviews were conducted with primarily micro- and small business-owners and employees throughout the country—except Gharm/Qarateguine valley. (Refer to Annex II for the bazaar questionnaire used.) Below are brief descriptions of the data analysis performed on the bazaar survey.

Demography

Since most bazaars are located in urban areas, the far majority (90%) of our bazaar survey population were selected from urban locations (**Fig. 77**). Sixty-two percent (62%) of the interviews were conducted with male business-owners and employees and the remainder with females (**Fig. 78**). The average age of the person interviewed was 36 years (**Fig. 79**). And the far majority (82%) of the people interviewed identified their ethnicity as Tajik (**Fig. 80**). Another 15% identified themselves as Uzbek, 2% Russian and 1% others (one interviewee each from the ethnic groups Afghan, Korean, Kurd, Kyrgyz and Tatar).

Education and Occupation

A total of 70% of the individuals interviewed claimed to have some level of middle school or technical school education (**Fig. 81**). About a-quarter (28%) claimed to have university level education, and less than 2% claimed to only have primary level education. Only one individual interviewed said not to have had any formal education.

A total of 85% of the interviewees claimed that their bazaar job is their main occupation. When asked why they are working at their current job (**Fig. 82**), more than two-thirds (70%) claimed that their previous occupation did not produce sufficient income or that their current job is their "only alternative". Fifteen percent (15%) claimed that the reason for being at their present job is that they find it enjoyable. And 13% claimed it to be their "permanent job". Among the "other" reasons, one business worker in a rural setting in Leninabad claimed that the family store was functioning only to be able to provide the people in the village with affordable and available commodities—and not for a profit motive.

The far majority of the business owners and workers interviewed claimed to have had other occupations in 1991 (**Fig. 83**). Sixteen percent (16%) were factory workers, 15% worked in the education sector, 13% were students, 7% were office workers, 5% worked in healthcare and so forth. Only 11% claimed to have been sellers or businesspeople in 1991 as well. On the average, the bazaar interviewees claimed to have been at their present job for 4.2 years. Compared to all regions, businesspeople in Dushanbe claimed to have been at their present occupation the longest, at 5.7 years and those of Kulob the least, at an average of 2.1 years (**Fig. 84**).

Type of Business and Ownership

The main goods sold by the businesses interviewed were: clothing 40%, foodstuff 32%, household items 10%, fruits and vegetables 9%, bread 5% and meat 2%. Another 2% of businesses interviewed sold: gasoline, jewelry, flowers, pharmaceutical products and cattle (**Fig. 85**). Almost all (96%) of the businesses interviewed offered their goods at retail. As depicted by **Figure 86**, nearly two-thirds (63%) of all businesses have one owner, a-quarter (25%) have two owners, 6% three owners, 4% four owners and 2% have more than four owners. Sixteen percent (16%) of businesses said that they have employees to run or assist in their work. Six percent (6%) have one employee, 3.5% two, 1.5% three and 4.5% have four or more employees. The number of business hours was

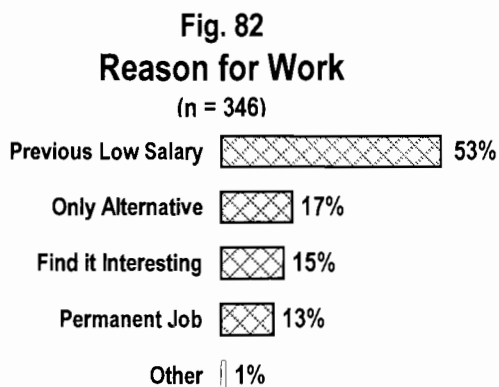
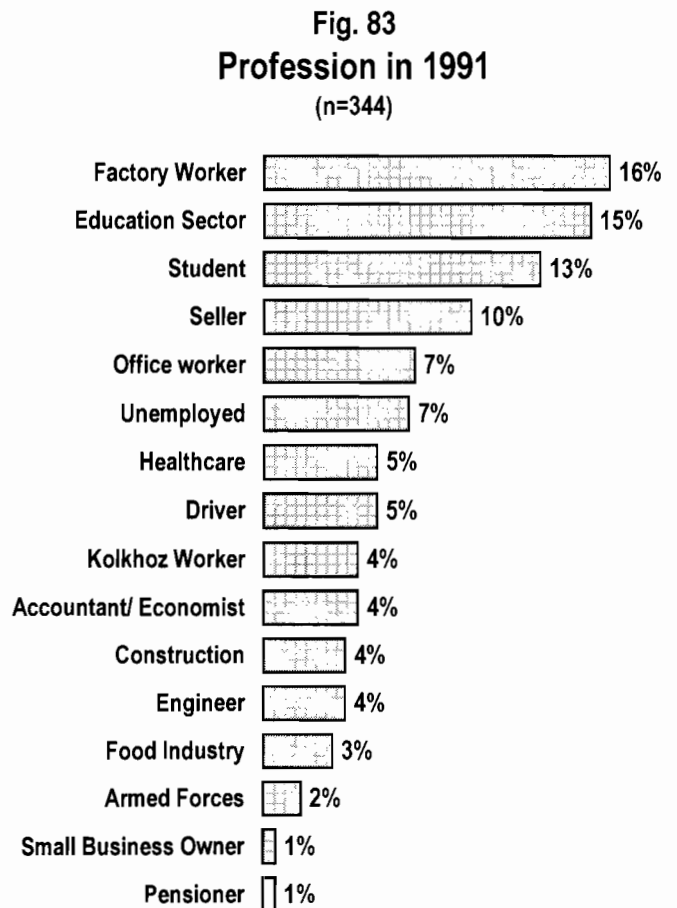
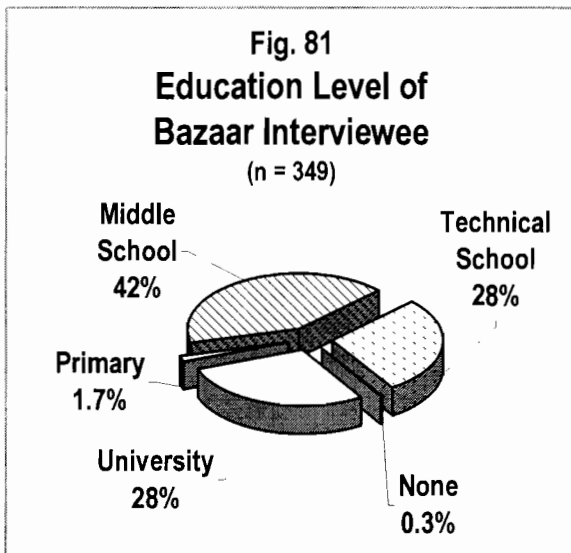
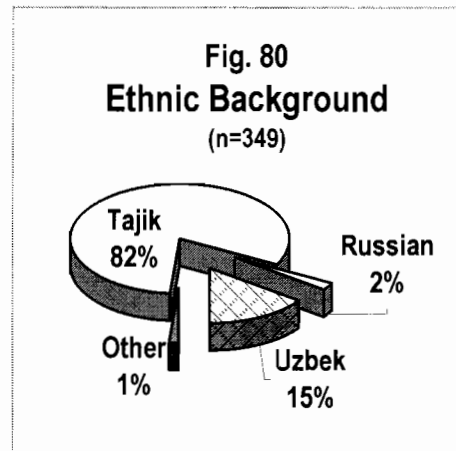
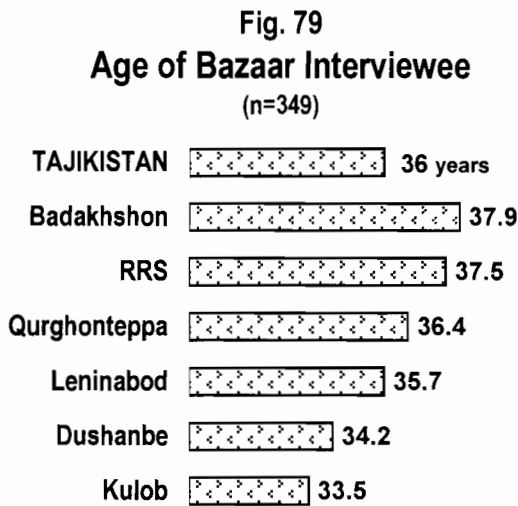
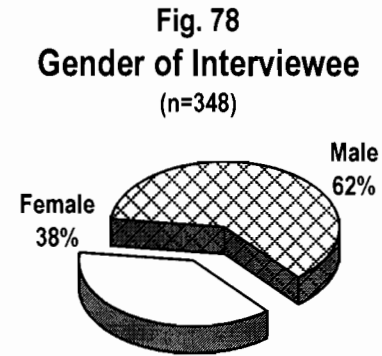
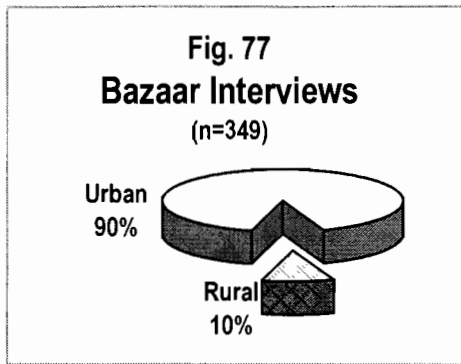


Fig. 84
Time at Present Business
 (average no. of years)

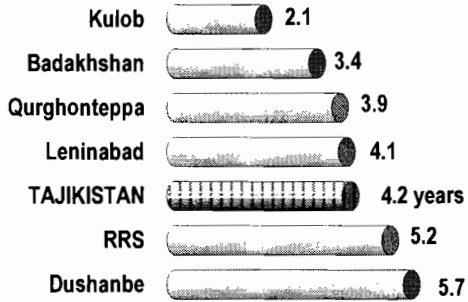


Fig. 85
Major Goods Sold
 (n = 349)

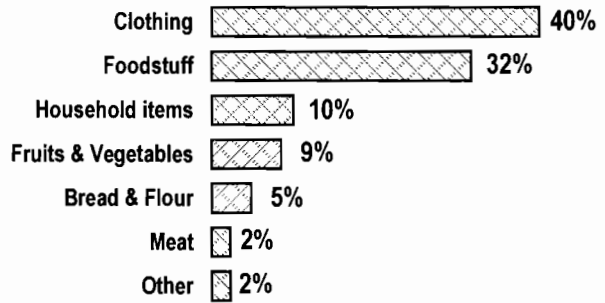


Fig. 86
Number of Owners
 (n = 346)

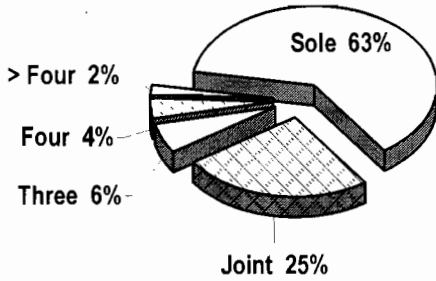


Fig. 87
Import Origin
 (n = 101)

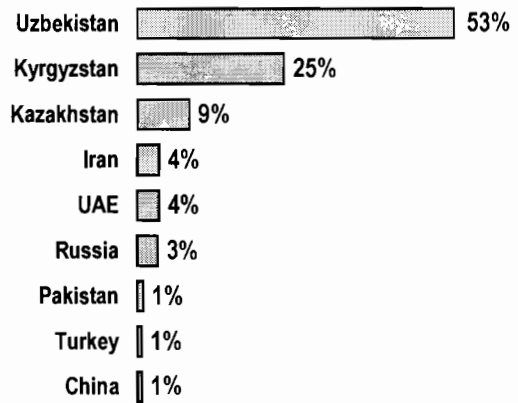


Fig. 88
Acquisition Mode
 (n = 345)

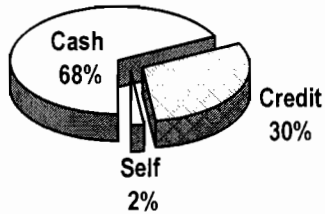


Fig. 89
Start-Up Capital
 (n=270)

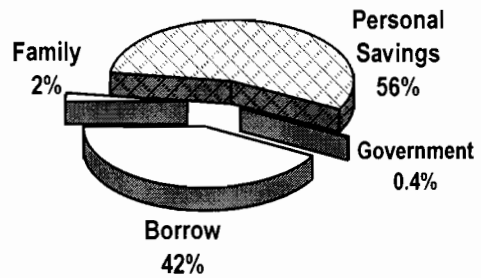


Fig. 90
Average Turnover of Goods
 (n=329)

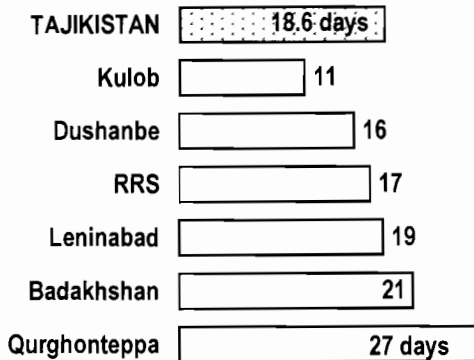
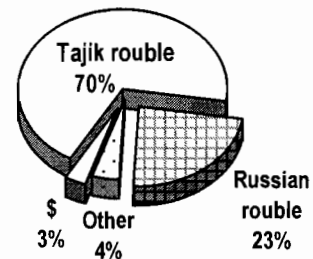


Fig. 91
Primary Currency Used (n=348)



reported on the average as 9.6 hours per day. And businesses reported working on the average 6.2 days per week.

About one-third (29%) of the surveyed businesses claimed to import their goods from abroad. **Figure 87** looks at the reported origin of imported goods. More than half (53%) of the businesses claiming to import their goods said to do so from Uzbekistan, one-quarter said to import from Kyrgyzstan, 9% from Kazakhstan and the rest from Iran, UAE, Russia, Pakistan, Turkey and China.

When asked how the business was acquired (**Fig. 88**), two-thirds (68%) said that they used cash to start their business. About one-third (30%) claimed to have started their business using credit and 2% said they've been selling their own goods (primarily agricultural produce) and did not need start-up money. The average amount of start-up capital was estimated to be an equivalent of \$550. The source of start-up capital (**Fig. 89**) was reported as personal or family savings in 58% of cases and borrowing from acquaintances or businesspeople (excluding banks) in 42% of cases. In only one case was the government the source of start-up capital.

The businesses interviewed claimed, on the average, to make 3.8 trips per month for the acquiring or purchase of their goods. A bit less than half (45%) of the businesspeople claimed to travel "with others" to acquire their goods (usually from a larger bazaar located in another city or neighboring countries). Nearly one-third (29%) claimed to travel alone and 26% claimed not to travel anywhere for acquiring their goods, with the items being delivered to them by whole-sellers or produced by themselves.

Average turnover of goods was reported as 18.6 days (**Fig. 90**). In 70% of cases, businesses claimed the Tajik rouble as being their primary currency of use. In another 23% of cases (mainly in Leninabad), Russian rouble was claimed to be the primary currency (**Fig. 91**). Three percent (3%) claimed to use the US dollar and four percent said to be using other currencies and means as their primary currency of transaction (Uzbek sum, Kyrgyz som and barter).

Business Strategy

As depicted by **Figure 92**, about a quarter of businesses (24%) claimed that market demand is the main price determinant. Another 23% claimed transportation cost as their main price determinant, 15% the amount of profits desired, and 16% of businesses claimed that the exchange rate of the dollar (12%) and other currencies (4%) as their main price determinant. Furthermore, 18% said that their prices are pre-determined (either by the government or business owner) and 3% claimed that they peg their prices to the changes in the price of bread.

Businesses were asked to identify their main strategy of dealing with their competitors (**Fig. 93**). Nearly 40% claimed selling their goods cheaper than their competitors is their main strategy. One-quarter (25%) claimed good customer relations and 19% claimed selling higher quality goods as their strategy. Another 15% claimed not to have a strategy and 2% claimed not to have competition.

Businesses were asked about their preference on price vs. quality when purchasing goods for resale. The majority (60%) said that they emphasize price; 38% preferred quality (**Fig. 94**). Businesses were also asked if they advertise their goods and services in any way. Twenty-five percent (25%) said that they do. Among those, nearly half (49%) claimed to advertise verbally (as many micro- and small businesses do in bazaars), 22% claimed that good customer relations is their means of advertising, 15% said that they advertise by exhibiting their goods, 6% claimed that they sell high quality goods and 5% claimed to advertise in the local television or radio. Other answers included the wearing of their products, advertising through friends and giving out samples.

Expenses

As seen by **Figure 95**, the main mode of transportation used by businesses is bus (44%) followed by passenger vehicle (14%), truck (12%) and train (9%). **Figure 96** depicts the percentage of mark-up on goods vs. transportation expenses by region. The sizes of the circles represent the

Fig. 92
Price Determination
(n=344)

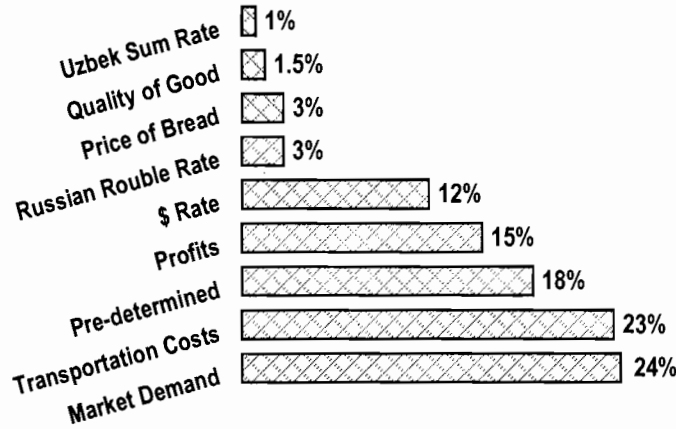


Fig. 93
Competition Strategy
(n = 342)

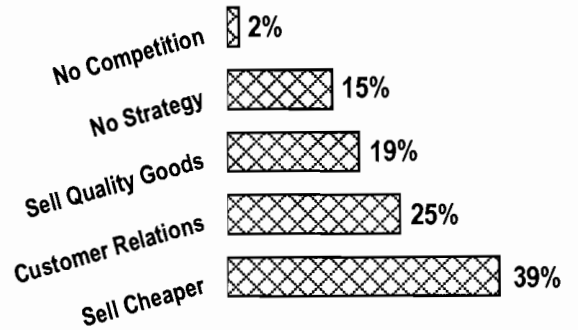


Fig. 94
Preference for Price vs. Quality
(n=338)

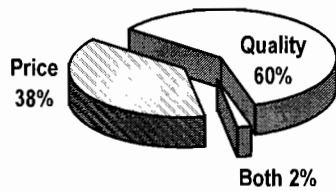


Fig. 96
% Mark-Up & Transportation Expenses
(n=328)

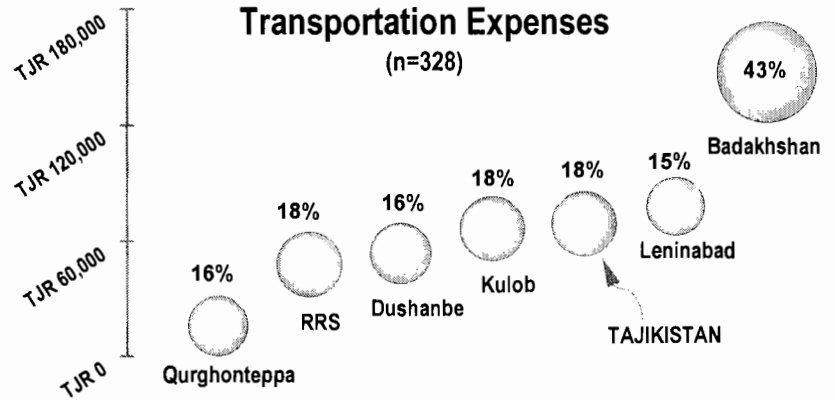


Fig. 95
Transportation of Goods
(n = 305)

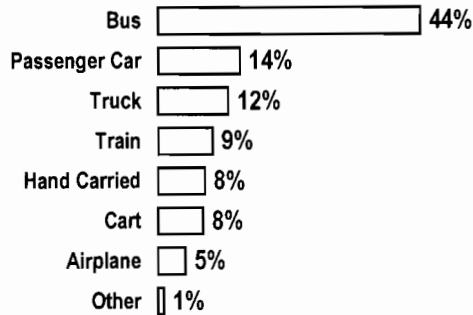


Fig. 98
Preferred Charity
(n=325)

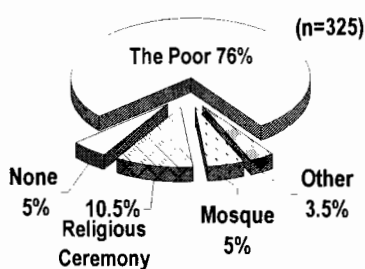
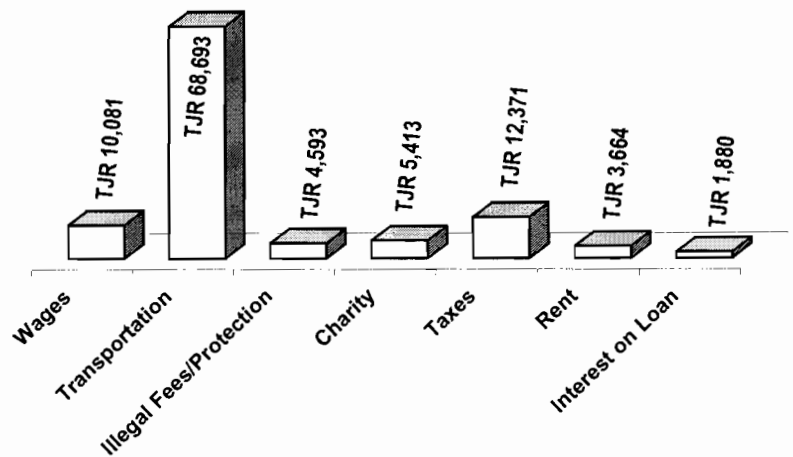


Fig.97
Selected Average Monthly Business Expenses
(n=328; exchange rate= \$1:TJR 830)



average percentage of mark-up and locations of the circles represent the transportation expenses of businesses surveyed (pegged to the left axis of the chart). The average monthly transportation expenses of the businesses interviewed by our survey is around TJR69,000 (\$83), and the average mark-up on goods was reported to be 18%. It is safe to posit that transportation expenses have an obviously large effect on the prices of goods for businesses in Badakhshan, where on the average a 43% mark-up on goods were claimed. This is not surprising given the tedious and long distance between the nearest markets and the main bazaar of Badakhshan located in its capital Khorog.

Figure 97 depicts the average selected expenses for the surveyed businesses in Tajikistan. They are: transportation (equivalent of \$83), taxes (\$15), wages (\$12), contributions to charity (\$7), illegal fees and protection (\$6), rent (\$4) and interest on loans (\$2). Other expenses totaling on the average the equivalent of \$23 per month are: incidentals (fire, theft, etc.), storage, meals consumed during work hours and losses due to bad customer credit. [Unfortunately our data was inconclusive with regards to expenses of purchasing of goods for resale. The SCF-UNHCR 1995 study showed that the purchase of goods for re-sale was on the average an equivalent of about \$200 per month and constituted about 81% of total expenses for micro- and small businesses (Birkenes 1996).]

Assuming that the only other monthly business expense is that of purchasing of goods for resale, constituting on the average 81% of the average total business expenses, an estimation of the average total monthly expenses for Tajikistan micro- and small businesses is TJR662,000 or an equivalent of \$798. Based on this calculation, on the average, the proportional breakdown of the components of total business expenses becomes: purchase of goods for resale 81%, transportation 5%, taxes 4%, charity 1.8%, wages 1.2%, illegal fees and protection 0.9%, rent 0.8%, interest on loan 0.3% and other expenses (as described above) 5%.

Figure 98 looks at the charity of choice for businesses in Tajikistan. Nearly three-quarters (76%) reported giving regularly to the poor and needy, 10.5% reported spending on religious ceremonies (usually the remembrance of the deceased), 5% said that they give to the local mosque and 3.5% contribute to the local school, hospital and relatives.

About one out of every six businesses surveyed (17%) have employees. The average reported wage of employees is TJR25,466 (\$31) per month. And a total of 64% of businesses surveyed reported receiving assistance in the form of labor and logistics from a family member. In more than 29% of those cases, help was from a female family member.

Revenues

Monthly business revenues were estimated based on reported daily earnings and the number of days worked per month. As seen by **Figure 99**, the estimated monthly revenues for the businesses of our survey were an average of TJR695,366 (\$838). Due to the fact that many businesses may have under-reported their finances, the reported business expenses and especially revenues should be treated with caution. This made the estimation of profits cumbersome. When subtracting monthly expenses from revenues to arrive at profits, we came up with an equivalent average of \$21 per business per month, which in all likelihood inaccurate.

Businesses were asked to identify the major influence on the amount of their profits. As can be seen by Figure 100, 38% identified retail prices as having the most influence on their profits. Another 30% identified quality of goods sold, 21% market demand and the rest named customer relations (8%), supply of goods (1%) and transportation expenses (1%) as the major influence on profits.

Fig. 99
Estimated Monthly Business Revenues
 (n=329)

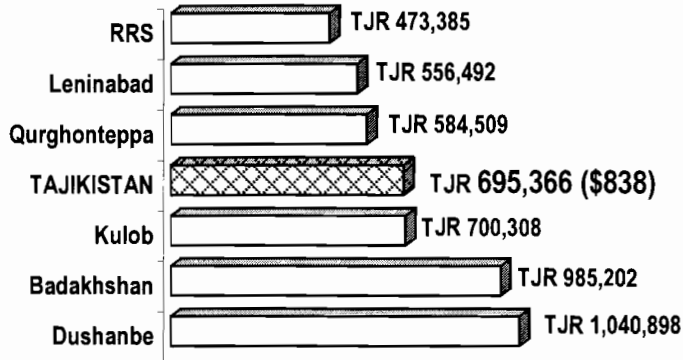


Fig. 101
Protection Against Inflation
 (n=343)

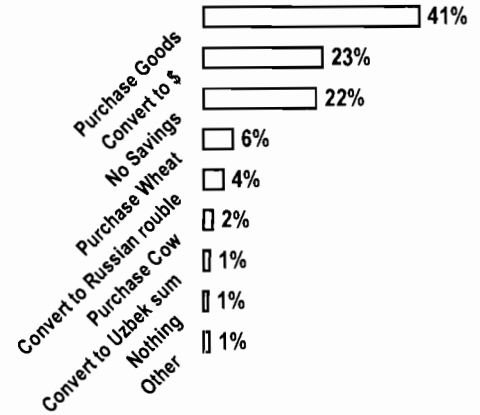


Fig. 100
Major Influence on Profits
 (n=342)

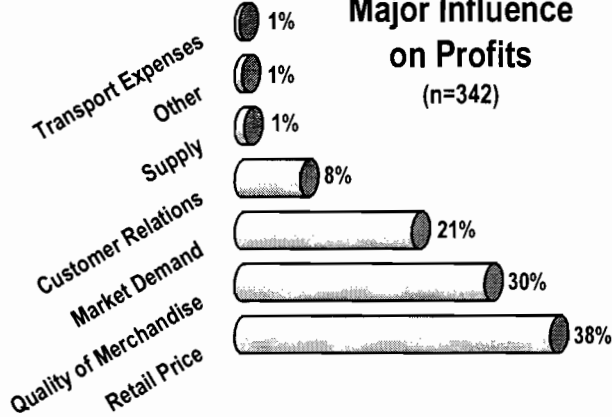


Fig. 102
Main Business Constraint
 (n=216)

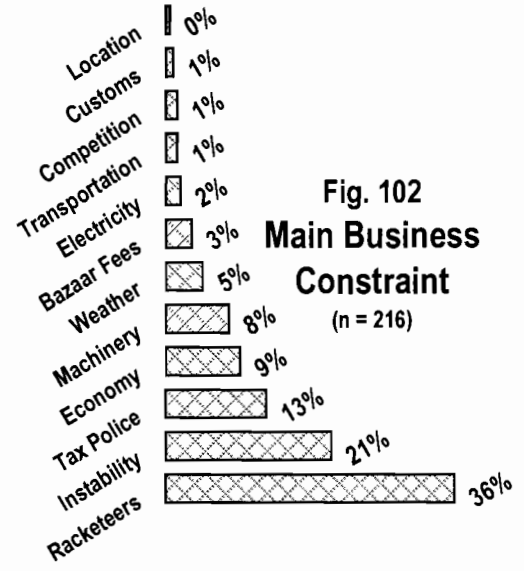


Fig. 103
Use of Loans
 (n=336)

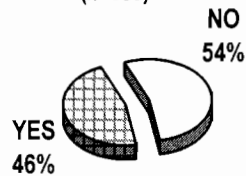


Fig. 105
Potential Loan Use
 (n=321)

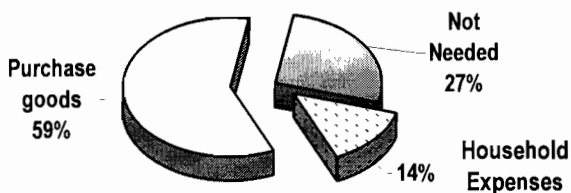
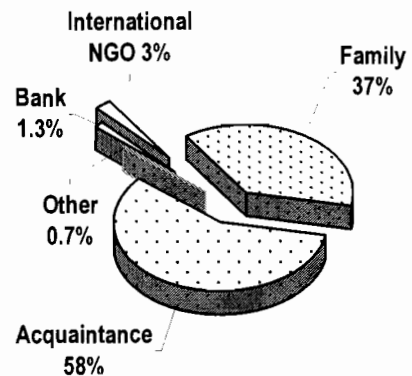


Fig. 104
Loan Source
 (n=153)



Constraints ²⁵

Inflation with its consequent loss of value of the Tajik rouble is a major constraint for most businesses. Since its introduction in May 1995, the Tajik rouble has devaluated against the dollar by nearly 21 times or more than 2000%.²⁶ The businesses of our survey were asked how they protect their Tajik rouble denominated revenues and savings against inflation (**Fig. 101**). A total of 41% claimed to purchase goods for resale as their strategy. Another 28% claimed to convert their Tajik roubles into dollars (23%), Russian roubles (3%) and Uzbek sum (1%). About one-fifth (22%) claimed not to have any savings and the rest claimed to protect their savings through the purchase of wheat or flour (6%), farm animals (2%) and property and gold (1%).

The main business constraints identified by the businesses, as depicted by **Figure 102** in proportion of responses were: racketeers and demanding of illegal fees (36%), instability of the country (21%), taxes and tax police (13%), the economy (9%) and machinery (8%). The remaining 15% of businesses identified the following constraints: the weather (affecting open-stall bazaar sellers or sellers of commodities that need refrigeration), bazaar fees, electricity, transportation, competition, customs and location of business.

As seen by **Figure 103**, 46% of the businesses surveyed claimed to have borrowed in the past 12 months. Of those who had borrowed, 58% claimed to have done so from an acquaintance, 37% from a family member, 3% from international NGOs (Aga Khan Foundation in Badakhshan and SCF in Qurghonteppa zone of Khatlon) and only two cases claimed to have borrowed from banks (**Fig. 104**). The average loan amount was reported at an equivalent of \$290. The average borrowing period was 4 weeks per loan, and the average frequency in taking out loans was 4.7 times per year. Though businesses did not identify the availability of credit as a major constraint, while asking about loans, it was found that they pay very high rates of loan financing, at an estimated average equivalent of 131% annual interest. The instability of the Tajik rouble, the short-term nature of the loans and lack of established banking institutions specializing in advancing of credit to micro- and small businesses all contribute to high interest rates.

The bazaar survey population were asked if they could borrow in the future, what they would spend it on. As depicted by **Figure 105**, about a-quarter (27%) of the businesses claimed that they are not in need of borrowing, 59% claimed to use a potential loan for purchasing goods for resale and 14% would use it on household expenses.

To gauge the degree of job satisfaction of business owners, we asked them if they would want their children to become businesspeople. The majority (61%) told us that they would not prefer their children to become businesspeople. Many of the "no" answers explained that they do not consider their job as a real one, that they would prefer their children to seek education instead or that conducting business is very difficult and even dangerous.

Needs

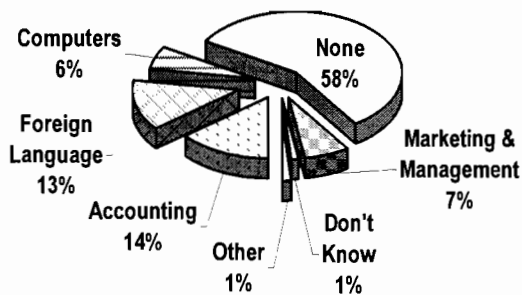
Businesses were asked if they are members of any associations. Only 4% claimed to be members of some type of formal or informal association. When asked whether they would like to belong to a business association, 59% said that they would.

When asked what they would change if they were the head of the bazaar, 60% said that they would renovate the bazaar pavilion, 14% claimed not to know what to do or would do nothing, 13% would try to reduce market prices, 8% would reduce crime and 3% would reduce fees.

²⁵ A recent description of the business constraints in the Khatlon province can be generalized for all of Tajikistan where the "absence of credit facilities, lack of capital and collateral, a repressive tax regime, absence of proper bank facilities, lack of legal protection for prospective entrepreneurs, weak enforcement of law and order ... as well as inexperience of prospective entrepreneurs ... in a market economy, are all hindering the development of small and medium enterprises" (UNOPS p. 18).

²⁶ At its introduction in May 1995, the Tajik rouble (TJR) was set at an exchange rate of TJR50: \$1. As of the end of November 1998, the Tajik rouble's market rate was around \$1:TJR1,080:\$1.

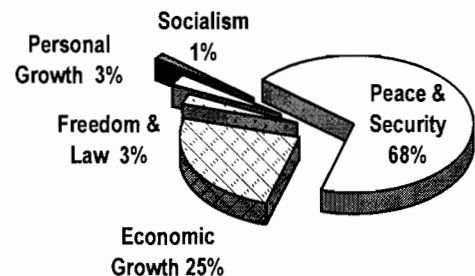
Fig. 106
Training Desired
(n=342)



Zafarjon is the chairman of the office of road maintenance in a major city in Leninobod province. His household is composed of 11 people. All except one are adults. In recent years, he has begun a business of exporting dried and fresh fruits and vegetables to Russia. The household purchases grapes, raisons, cherries, walnuts, apricots, onions and lemons from nearby kolkhoz leaders who in turn purchase them from kolkhoz workers through in-kind payments. (Usually the kolkhoz pays minimal amounts of wheat for substantial amounts of dried fruits). Zafarjon fills large rented trucks with the fruits and sends them to destinations such as Moscow, Krasnayarsk and Svertlovsk. According to Zafarjon, the border posts in Uzbekistan are the most problematic for his business. They routinely demand large sums of money in exchange for passage. This reduces his profits. Nevertheless, exporting fruits has helped Zafarjon's household to cope with the economic crisis and afford an estimated household monthly expenses of TJ210,000 (\$250).

Mahabbat is 49, an ethnic Uzbek born in Andijon of Leninabad province. She teaches painting in an art school in Khujand. Though teaching is her main interest in life and she works long hours, she does not generate sufficient income from it. To make ends meet, Mahabbat has begun a small business in Khujand's main bazaar, selling beauty products. She started the business by borrowing \$250 from a relative and purchasing goods from Tashkent, the capital of Uzbekistan, a three-and-half-hour bus ride away. Once sales picked up, she hired one worker. Mahabbat claims daily business revenues of around TJR20,000 (\$24). She pays her employee 100,000 Russian roubles (\$16) per week. "I wish the government would reduce customs fees. This way we could sell our goods cheaper," she says. Mahabbat says that she does not want her children to follow her footsteps. "I think there's no future in it here. I would like to see my kids pursuing higher education or the arts."

Fig. 107
Improvement of Tajikistan's Business Climate
(n=338)



Bakhtdavlat is 28 and lives in Shugnan, a district near Khorog, the capital of Badakhshan. Up until a few years ago, he had been working as an economist for a government fabric factory in Khorog. Since his old job was eliminated in 1996, Bakhtdavlat began operating a small business in Khorog's main market, selling fruits and limited foodstuff. "In the beginning I used to be ashamed of what I do especially when one of my relatives or acquaintances would see me here in the bazaar," he says. "My shame disappeared when I saw my first profits." Bakhtdavlat sells goods on commission. He estimates his profits to be TJR36,000 (\$43) per month. "The money that I make now is still not a lot, however it's 6 times more than what I would have made as a government economist." Bakhtdavlat claims that the turnover time for the goods on sale is about two days. He is content with his work and encourages his former colleagues in search of work to start small businesses. He thinks that the free market is good for Tajikistan. "If during the era of the USSR, the free market system was allowed to function and grow, our country would not be facing its present economic crisis."

Businesses were asked to identify the type of training they would like to receive from a list of choices (Fig. 106). The majority (58%) said not to want any type of training. Fourteen percent (14%) claimed to want training in accounting, 13% in foreign languages, 7% in marketing and management and 6% in computers.

All businesses in our survey were asked their wish or desire for the improvement of business climate in Tajikistan (Fig. 107). Two-thirds (68%) said that peace and security in the country is their main wish. A-quarter (25%) claimed that the improvement in the national economy is their main desire. Three percent (3%) expressed their hope for more freedom and rule of law and 1% wished for a return to socialism □

Mirzo Hoji, 48, is a head of a household composed of himself, his wife, their two daughters, two sons and a daughter-in-law. They live in the village of Poymazor in Aini district of Leninabad province. He and one of his sons are the breadwinners. During the Soviet era, Mirzo used to be a stonecutter, working with a firm that gathered precious stones. He is also an expert in industrial explosives, necessary for that profession. Out of Mirzo's three school-aged children, only one attends school. That's because the only middle schools that two of Mirzo's children could be attending is 30 km away in the town of Aini or further away in the settlement of Takfa in Penjikent district. An estimated 90% of the children in this village do not have an education higher than the fourth grade.

Due to the mountainous nature of Aini district, arable land area is small. Mirzo's household has 0.12 ha of land attached to their house. And they have rented an additional 0.10 ha from the kolkhoz. Both plots of land are irrigated and sit on a gradient. In addition, Mirzo and others in his village find unused lands in the hills to plant rain-fed wheat with minimal yields. The main crops of Mirzo's household are wheat, potatoes, vegetables, and *boqolo*, a type of bean. Mirzo claims to have had a harvest of 200kg of wheat planted in 0.10 ha (equivalent to a yield of 2 MT/ha), 50kg of vegetables planted in 0.02 ha and 480kg of potatoes planted in 0.10 ha (equivalent to 4.8 MT/ha). Mirzo rents the services of a neighbor with two bulls for plowing his lands. He pays 30kg of wheat for every 0.10 ha of land plowed. Mirzo is responsible for feeding the bulls and the worker during the 2 days plowing periods. Last time he used 6kg of barley and 6 piles of hay for feed. With the worker's lunch, that's about TJR2,500 (\$3). For planting, Mirzo used 20kg of wheat seeds from his stock (worth TJR170 or 20 cents per kg) to sow the 0.10 ha of land and 80kg of his potatoes (worth TJR200 or 25 cents /kg). Mirzo pays more than two-thirds of his harvest from his rented plot as rent and for the right to collect grass for animal feed from the kolkhoz lands.

Mirzo has 2 bulls, 2 milk cows, 10 goats, 20 sheep and 2 calves (he claims to have had twice as much animals in 1991). Mirzo and his family slaughtered 3 sheep and one goat in the past year. They also sold two bulls, 6 sheep and 4 goats. This generated TJR780,000 (\$950), which Mirzo claims they use primarily for food and clothing. In order to save money by not paying for transport and the ubiquitous checkpoint extortion, the family takes the animals by foot, a distance of 250km in a period of a week or so to reach the main animal market in Urateppa—the second largest city in Leninabad. Mirzo purchases, among other things, nearly 500kg of wheat and 500kg of barley (for feed) from the earnings. Now days the family mixes 30% barley flour with that of wheat to make their bread. This is a coping mechanism many households have chosen. The family has approximately TJR70,000 (\$85) of expenses per month. On a weekly basis, Mirzo's household consumes, among other things, about 1kg of meat, 7 liters of milk and 1 liter of cooking oil.

Mirzo claims the main problems of his village are insufficient land and long distance from main roads. Everyone in Mirzo's household contributes. The youngsters, for example, act as shepherds, and while doing so gather wild herbs such as *qaroqot*, cumin and animal feed for the family's winter consumption and for sale in the market.

Recommendations

The following recommendations are based on the results of this study in addition to empirical experiences of the consultant while in Tajikistan. They are meant as constructive suggestions for donors, international organizations, NGOs and the government of Tajikistan in their endeavors for the improvement of the people's wellbeing:

1) Food-for-Work and Food Aid: Recent natural and induced environmental disasters combined with the continuing economic turmoil have demonstrated the delicate balance of food cycle in Tajikistan and the necessity for the international humanitarian community's involvement in food aid for several years to come. Despite the growing internal grain production, reaching annual levels of around half-a-million tonnes, the country continues to require an additional 300,000 to 500,000 tonnes of grain to satisfy its food deficit. International humanitarian assistance has averaged about 100,000 tonnes of food aid per year (EIU 1998-c). As our survey showed, about a-quarter of households in Tajikistan can be categorized as food insecure (Figure 45). And perhaps surprisingly, households in Dushanbe were found to be the least food adequate and the second most food insecure among the surveyed regions.

Considering the continuing food deficit, there may be grounds for increased food aid to Tajikistan. As was cited in the report, when looking at food aid for households reporting more than 100gr of food aid per person per day (Fig. 47), Badakhshan province came up first with 84% of its households receiving such amounts. The rest of the country, however, was found to receive significantly less assistance, with the highest proportion of households receiving 100gr of food aid per person per day being only 4% and in the Qurghonteppa zone.

To discourage a culture of dependency that can be developed with food aid, efforts should continue by all the NGOs and international organizations involved in food aid to continue their operations with increasing number of food-for-work projects and beneficiaries. According to a high level UN official, Tajikistan is a country with a strong tradition of community participation in development, and food-for-work and self-targeting projects are ripe for it. It is hereby suggested that all food-for-work projects adhere to several important components:

- i) Beneficiary selection should be thorough, need-based, and the process should directly involve the implementing agency with vigorous and random auditing of distributed goods and verification of reported beneficiaries;
- ii) Food-for-work projects and beneficiaries should continue to increase with potential rehabilitation projects involving the productive sectors of village and urban areas as targets. Local committees should select the projects. The composition of committees should be approved by the implementing agency and preferably compose of local government officials, women leaders, religious and trusted figures and representatives of various ethnic groups present in the community;
- iii) Ultimately, the only non-food-for-work food aid beneficiaries should be the economically disadvantaged among the severely handicapped, the very old, pregnant and lactating women and young children.

2) Agriculture: As was seen by our household and farms survey, 41% of respondents claimed insufficient land or lack of land as their main farming constraint. Another 18% identified lack of agricultural machinery and, among other things, 6% identified lack of fertilizers as their main constraint (Figure 33). Data analysis also showed that agricultural plots as small as 0.11 ha may have significant positive impacts on household food security.

Although most kolkhozes and sovkhoses do rent out part or most of their lands, the best lands are usually not rented. Much of the potentially good agricultural land have deteriorated through high groundwater, clogged drainage canals or unavailability of irrigation water. As the experience of UNWFP and UNOPS have shown, cleaning of drainage canals and/or repairing of

irrigation pumps and canals not only lead to improved lands and higher yields, the projects can also act as means of obtaining favorable land leases for deserving beneficiaries. In addition to existing efforts, the following components are suggested for increased and sustainable food production:

- i) Encourage the formation of small farming associations;
- ii) Provide agricultural inputs (as Care International and GAA are currently doing) in the form of seeds, fertilizers and appropriate technology to local associations as loans which the association would be required to repay either in cash or in-kind harvest;
- iii) The survey found 28% of all household agricultural lands to be categorized as mountainous and sloped (Fig. 27). Especially in such cases, agricultural advice should be provided to the farmers in the form of sustainable plowing, contouring and irrigation techniques;
- iv) The government should be encouraged not to levy unreasonable amounts of taxes and fees on farming and to allow farmers hindrance-free access to local and international markets for the sale of surplus harvests;
- v) "A rush on privatization, badly designed and implemented may not necessarily lead to the emergence of a class of individual farmers. It may produce a new kind of slavery and put the poor people into the hand[s] of a few local chiefs ..." (WFP 1998, p. 4). Although the international humanitarian and financial community should encourage the government to proceed with agricultural privatization and land reform, they should side with small farmers, long-term leases and encourage increased transparency and fairness in the privatization and reform process.

3) Environmental Protection: For the first half of 1998 alone, natural disasters in Tajikistan took more than 100 lives, damaged 7,000 homes (a-tenth of which were completely destroyed) and cost the economy an estimated \$66 million. More than 1,000 households were relocated, and major damages were inflicted on 1,200 km of roads, 560 km of transmission lines and 60,000 ha of crops (New Europe 1998). The damages caused by mud torrents, landslides, floods, torrential rains and strong winds may have been exacerbated by the increasingly unmanaged use of lands for grazing, plowing of hills and high gradient lands, and the inability of local governments in reinforcing rivers. The continuing economic turmoil may be steering the country in utilizing its natural environment at increasingly unsustainable levels.

Other major environmentally significant issues facing Tajikistan and the Central Asian region concern the Sarez Lake and Aral Sea. Sarez in Badakhshan province is a major water structure in need of emergency stabilization. Its possible collapse would be disastrous for all of Central Asia.²⁷ Aral Sea is the ultimate basin of all the major rivers of the Central Asian region.²⁸ Its likely extinction due to regional water mismanagement will have disastrous ecological repercussions on Tajikistan and the rest of the countries in the region.

It is recommended that attention be given to the importance of environmental protection, that specific environmental projects be funded by the international community and implemented in

²⁷ Sarez Lake was figuratively created in 1911 as a result of an earthquake blocking the Murghob River in the Pamirs. It is located at a height of 3,239 meters at the former sites of the two villages of Sarez and Ousoy. With a maximum depth of 505 meters and maximum length of 269 km, Sarez covers an area of 88 km² and holds nearly 17 cubic km of fresh water (Mamajonov, M. 1968. *Tajikistan*. Moscow). Sarez is considered unstable and the government of Tajikistan has appealed for assistance for its stabilisation.

²⁸ Due to "gross economic mismanagement" throughout Central Asia, the Aral Sea, once the fourth largest lake in the world is gradually transforming into "a toxic desert" and may be fully extinct by 2015. Since 1968 the lake's depth has shrunk by an average of 16 meters and the southern shore—once a rich source of fish—has receded by 150 km. Lack of a co-ordinated regional environmental policy has prevented the available means of saving the lake (BBC 1999).

conjunction with the republic's ministries of the environment and agriculture and local and international environmentally-focused NGOs. Special attention should be paid to the concept of eco-tourism where funds can potentially be generated to both protect the natural environment and revive local economies. Tajikistan could emulate the Costa Rican model of the creation of large natural reserves and the promotion of eco-tourism.

4) Credit Schemes: Nearly half of the households and micro- and small businesses interviewed in this survey claimed to have borrowed money in the past year. The majority did so from relatives and acquaintances. The survey found almost no use of banking services by either households or small businesses. (Only three respondents among the more than 600 households and businesses who borrowed claimed to have done so through banks). In addition, the loans that were borrowed from non-family sources carried excessively high payback rates of an average equivalent of 131% annual interest. It is clear that financial institutions that would specialize in assisting small businesses and household entrepreneurial activities are sorely lacking in Tajikistan.

As the experiences of several international organizations and NGOs in Tajikistan have shown, small- and medium size loan programs or micro-credit schemes, if carefully managed, can be quite successful. Examples are those of the Aga Khan Foundation's Enterprise Support Facility²⁹ and SCF's Group Guarantee Lending. It is recommended here that similar credit schemes be implemented throughout the country. Such programs, however, should adhere, among other things, to five essential components:

- i) The lending scheme should have a built-in component of transferring in a reasonable amount of time *all* management to a local NGO or bank with minimal or no expatriate supervision;
- ii) In as much as possible, training of recipients in appropriate technology, business management, computers and accounting, among other fields, should be an indispensable part of the lending scheme;
- iii) As has been stated before on this issue, such lending programs should aim to "wean themselves away, first, from international management, and later, from international funding" (Foroughi 1998). To ensure sustainability and self-reliance, lending programs should require to gradually become not only locally managed, but also *for-profit* schemes;
- iv) The process of beneficiary selection should be rigorous, fair and optimize the number of eligible borrowers;
- v) For larger businesses, the international financial institutions are encouraged, as the EBRD has been doing, to provide credit on reasonable terms to viable entrepreneurs.³⁰ Furthermore, the government should be encouraged to minimize red tape and paperwork, simplify business rules, and among other things, uphold firm anti-corruption measures, and increase the transparency and reach of privatization.³¹

²⁹ AKF's Enterprise Support Facility program has made more than 650 loans averaging \$1,300 to businesses in the Badakhshan province. The businesses have a combined annual turnover of \$6 million and employ about 2,000 people. The ESF program, which is managed by 12 Tajik nationals, has made out loans of between \$50 to \$5,000 with reasonable interest rate of 2% monthly. ESF reports more than 95% of its loans having been repaid. AKF plans to extend its ESF program in the Gharm valley (Holdsworth 1999).

³⁰ An EBRD contractor, Corporate Solutions is operating a "business advisory centre" in Dushanbe and channelling \$4 million of credit to businesses in Tajikistan.

³¹ USAID sees three stages in the general process of a shift to market economy in the CIS: short-term economic stabilisation; privatisation of--at the minimum--small and medium enterprises; and the establishment of financial markets in conjunction with the development of proper legal infrastructure assisting business activities (USAID 1998).

5) Health and Sanitation: Households in our survey reported a variety of serious ailments affecting their members (Fig. 53). We also found that despite the deterioration of water delivery and treatment facilities and the serious threat of water-borne diseases in the country, more than a third of the households claim not to boil their drinking water (Fig. 58). Nearly one-third of the households interviewed thought that food and nutrition is the main problem facing their village or neighborhood and one-fifth (20%) thought that unreliable or lack of potable water is their main community problem (Fig. 74).

The donors and implementing agencies should keep in mind that the health crisis facing Tajikistan today, with the spread of such ailments as anemia, goiter, typhoid, malaria and tuberculosis are results of the economic and political turmoil. The subsequent poverty and mismanagement in the country have, among other things, brought about unmaintained water treatment facilities, unsanitary, unequipped and cold hospitals and a substantial reduction in the purchasing power of the population leading to unhealthy diets and malnourished households.

A recent assessment by Children's Aid Direct in the Kulob zone of Khatlon, where an ongoing USAID-funded health project is in effect, says that the "health of women is seriously undermined by the lack of effective antenatal and postnatal care, family planning initiatives and safe motherhood practices. ... At the same time the general breakdown of public services such as safe water supply and sanitation has caused a dramatic increase in the incidence of communicable and vector borne diseases, particularly typhoid and malaria." The report goes on to recommend that "more emphasis must be [put] on preventive rather than curative services, and health must be viewed in a more holistic way" (CAD 1998).

A recent German Agro Action nutrition survey of 1,560 children aged 6 months to under 5 years conducted in two districts of Leninabad and seven districts of RRS has also found alarming results. It reports child morbidity to be very high, with 38% of children being sick the day of the survey, many with respiratory tract infection diseases. The study found the overall nutrition situation in the surveyed areas to be "critical", with 46% of the children under five years suffering from "chronic malnutrition" showing measurable rates of growth retardation and stunting, and 11% of children under five years suffering from "acute malnutrition" showing measurable wasting (Schumacher 1998).

It appears that some of the existing major international food aid and health projects in place may not be producing desired results. This report would like to re-emphasize that the humanitarian community concentrate on basic development projects that aid in healthier communities and households, projects that would address the root of health problems in Tajikistan rather than symptoms. Donors and implementing agencies should combine clean water, sanitation and income generation activities as necessary components built in all community health projects. Without an inter-sectoral approach to health, few food aid, drug distribution or health education projects have chances of success.

6) Conflict Resolution: For sustainability of development projects and long-term stability of Tajikistan, organizations involved in relief and development activities should be prepared to address the "underlying causes of conflict" and socio-economic crisis.³² Much of the problems facing the country have their roots in perceived ideological, regional and ethnic differences. The civil war has severely scarred the social fabric of the republic. "Of vital importance to Tajikistan's reconstruction is rebuilding its physical infrastructure as well as rebuilding the social network by which society sustains itself... Without social reconstruction, the population will be unable to facilitate and implement other forms of reconstruction ... Unless the problems that sparked the civil war are addressed, further conflict will ensue" (Shoeberlein-Engel 1998).

³² Professor Mark Hoffman of the London School of Economics says: "Humanitarian NGOs [operating world-wide] ... need to recognise that they do not work in a political vacuum and, moreover, that their activities have real political consequences. Therefore, in order to make the provision of humanitarian assistance effective [they need] to address the underlying causes of conflict" (Hoffman 1997).

It is safe to posit that had Tajikistan not experienced its civil war—a manifestation of heightened conflict—there would not have been the consequent human and material losses and the degree of socio-economic turmoil that it continues to face. It would have been more efficient to have somehow prevented the armed hostilities and the resulting bloodshed and destruction rather than attempt to address their consequences.

It is therefore recommended that the international organizations and NGOs operating in Tajikistan plan, among other things, pro-active conflict resolution programs that would increase the likelihood of lasting peace in Tajikistan and Central Asia. Pre- and post-independence events in Tajikistan and the region have proven that, not unlike many of the other newly independent states, there continue to exist underlying tensions based on region, ideology, religion, ethnicity and gender. As an example, differences between Tajikistan and Uzbekistan have been on the rise recently. And in the region as a whole, especially after the breakup of the Soviet Union, as a result of heightened and dangerous nationalistic fervors, there have been trends towards mono-ethnicity.

International organizations and NGOs should implement imaginative projects that would bring together the variety of peoples in the republic and promote national as well as regional cooperation. Projects that would promote consultation, exchanges and discourse among scholars, students, political and religious leaders, artists, local NGOs and representatives of various ethnic and minority groups, through the holding of conferences, retreats and regional programs may very well assure peace and cooperation in Tajikistan and Central Asia through the 21st century.

7) Human Rights Education: An appropriate pro-active conflict resolution tool would be the promoting of universally ratified concepts of human rights throughout the various strata of government and society. An example of a timely human rights project would be the training of soldiers and police. Both the UTO and the government troops and police units are excellent candidates for training in human rights. This is a concept that organizations such as UNMOT, OSCE, ICRC and Human Rights Watch could potentially assist in implementing. This is all the more appropriate now that the armed forces of the former foes are in the process of merging.

In line with this theme, the government should be enticed and encouraged by the international donor and financial community to allow regular access to any and all prisons in the country. The globally respected International Red Cross should be given that permission by Tajikistan authorities. Openness and the improvement of human rights in conjunction with liberal market regulations will undoubtedly have positive effects on the economy through the rise in investor confidence. It is hereby suggested that donors, including the IMF and World Bank, include human rights as part of their general discussions with country officials.

8) Strengthening of National Staff: The de facto first beneficiaries of most international organizations and NGOs are their national staff. There is no doubt that under Tajikistan's continuing economic turmoil and the below poverty rates of government and much of the private sector wages, employment with the international organizations and NGOs is an advantage. The international organizations and NGOs are also aware that without the existence of the national staff, in the far majority of cases, no progress would be made in their programs. Unfortunately, in many cases, the full potential of the national staff and hence the organization are not utilized by the international employer. It is hereby suggested that the following components be adhered to with regards to the national staff of international employers in Tajikistan:

- i) To ensure higher rates of program sustainability, involve the national staff in *all* phases of project planning, proposal writing, implementation and management. This requires that competent national staff be retained and promoted to deserving managerial positions. Such national managers should be treated as professional and intellectual equals of international managers. In which case, they would have to be invited to major meetings and their inputs utilized. The realities of international development are that most national staff may stay with the organization and remain in the country, whereas the international staff is temporary. Involvement of competent national staff in middle- and top-level managerial positions will therefore

lead to the strengthening of the organization and increase the chances of program sustainability;

ii) In line with the above point, market forces and negotiations should be the determinant of salary levels. It is interesting that although most international agencies are in favor of promoting free market forces in the former Soviet Union, when facing with competent national staff who may be underpaid, in many cases make no effort to retain them through modest salary increases. Hence, some of the largest international NGOs in Tajikistan due to their own set limits on national staff salaries, face continuous turnover among their best employees who may leave for better paying jobs with the UN system, foreign embassies or abroad;

iii) In line with the above, no staff member should be forced to work overtime. Some international NGOs and organizations require their national staff to work 50 to 60 hours per week without overtime pay. "If you don't like it, you can resign!", is a typical remark of some expatriates to concerned local staff. Such employers and their donors should be aware that by requiring employees to work overtime without pay, they are in violation of both the donor- and host-country laws. North American, West European and Tajik laws all prescribe that full time employment is equivalent to 40 hours (or less) of work per week (ACU 1996).

Incorporating overtime pay may be difficult for programs with already set budgets. An alternative and indirect method to compensate for overtime work, in such cases, can be in-kind time off. Considering that most international staff take as much as two to three times the vacation time that local employees do, this scheme may be quite appropriate and satisfy all parties.

Furthermore, international organizations and NGOs should be encouraging--not discouraging--their employees to organize in informal or formal associations that would be able to negotiate in a professional manner overtime pay and other employee-related issues. Donors should be cognizant of organizations that respect their local employees, since these are also the best agencies to undertake reliable relief and development operations;

iv) Just as the national staff are the de facto first beneficiaries of the international organization, the work environment is the de facto first development project of the organization. The employment process, for example, can be viewed as a democracy building or management training project, leading to transfer of know-how to the host country. Much of the daily managerial and office procedures and the organizational culture that the agency abides by will be retained by its employees, and will have a reach beyond the office borders. In line with that, among other things, the employer should disallow any nepotism or cronyism. All positions should be advertised and fair hiring practices abided by. Furthermore, employees should be instructed to treat visitors and fellow workers with respect without regards to nationality, race, gender and political affiliation.

9) Audits and Project Monitoring: An indicator of success for most international development projects involving food aid or distribution of various relief materials is the delivery of the intended goods to the intended beneficiaries. Any significant problems associated with this act, such as the incomplete delivery of items or the delivery of goods to ineligible recipients, depending on their magnitude, can constitute the failure of the project. Due to Tajikistan's remote and difficult geographical setting, its unstable and potentially dangerous political environment, few real audits of implementing agency activities and beneficiaries seem to have been performed since the commencement of general international operations in 1993.

Many donors, to reasons that may be incomprehensible to many, are satisfied with cursory review of books and token and potentially staged field visits. There is reason to believe that at least some projects of some implementing agencies in Tajikistan have been seriously mishandled,

partially due to donor neglect. In such cases, in the eyes of much of the population and authorities in Tajikistan, the whole international community is to blame. The following components, among others, should be associated with serious auditing and project monitoring in Tajikistan:

- i) Do not limit official audits to the review of books and the interviewing of implementing agency managers—both of which can be altered to suit donor auditing requirements. When an expensive international audit is being conducted, it is recommended that the auditors, among other things, require lists of beneficiaries from the implementing agency, prepare to spend sufficient time in field, interview randomly selected managers and beneficiaries, employ third party interpreters and verify the supposed delivery of commodities and the eligibility of their recipients;
- ii) The implementing agencies should in turn, create systems of checks and balances that require accountability and discourage fraud, require that project managers spend most of their time in the communities of the intended beneficiaries, and to incorporate local staff and community involvement in project design and implementation;
- iii) All parties, including the government and people of Tajikistan, donors and the implementing agency should require transparency in relief and development projects, where information such as the process of beneficiary selection, budgets and types and amounts of commodities are freely shared with all interested.

10) Women's Advancement: Our survey found that female-headed households in Tajikistan have on the average 30% less income than male-headed households, and a higher proportion of female-headed households are food insecure. The significance of assisting women in their educational and professional endeavors can not be overstated, as the wellbeing of women has a direct impact on the wellbeing of households and the country. The saying goes: "Educate a boy and you've educated one person. Educate a girl and you've educated a family!"


The international organizations and NGOs in Tajikistan seem to be aware of the significance of women's advancement. It is recommended that they continue with their women-focused programs such as UNDP's women in Development, SCF-UK's cooperative work with female-headed households, UNOPS' assistance in establishing women's centers and SCF-US's micro-credit program. Among other things, the advancement of women in Tajikistan can be assisted by the following general components:

- i) A stronger emphasis on the education of girls including the provision of incentives for households to especially keep their female children in school and for international organizations to provide more in-country and international scholarships for higher education for qualified females;
- ii) Formation of female-only associations and NGOs on village, neighborhood and national levels, and
- iii) Encouragement of the government to appoint more women to high management and ministerial positions, and for local women's associations to appoint female candidates for public office elections □

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Annex I
SAVE THE CHILDREN/US in Tajikistan
1998 SOCIO-ECONOMIC SURVEY OF HOUSEHOLDS & FARMS

1. QUESTIONNAIRE ID: _____ 2. SURVEYOR: _____ 3. DATE: _____, 1998

DEMOGRAPHICS

4. PROVINCE: _____ 5. DISTRICT/RAYON: _____ 6. JAMOAT/KOLKHOZ/SOVKHOZ _____

7. VILLAGE/QISHLAQ/UCHASTOK / CITY: _____ 8. GENDER: Male Female

9. IF YOU'D LIKE, CAN YOU TELL US THE NATIONALITIES OF YOUR HOUSEHOLD?
 Tajik Uzbek Russian Kyrgyz Tatar Arab Turkmen
 Uighur Korean Other: _____

10. IF YOU'D LIKE, CAN YOU TELL US YOUR REGIONAL BACKGROUND?
 (Tajik regional backgrounds)
 Samarghand Kulob Gharm Badakhshan Qurghonteppa
 Dushanbe Khujand Zarafshon Other: _____

11. ... (Uzbek regional backgrounds)
 Lakhay/Leninsky Ghonghorat Ferghanachi Urghut Other:

12. How old are you? _____

13. HOW MANY PEOPLE ARE IN YOUR HOUSEHOLD? _____

CHILDREN	BOYS	GIRLS	ADULTS	MEN	WOMEN
0-12 months			18-30 years		
1-6 years			31-45 years		
7-12 years			46-60 years		
13-15 years			61-80 years		
16-17 years			81+ years		

14. HOW MANY FAMILIES LIVE IN YOUR HOUSEHOLD? _____

15. HOW MANY PEOPLE WERE IN YOUR HOUSEHOLD IN 1991? _____

16. WHO IS THE HEAD OF THE HOUSEHOLD?
 Husband Wife Both Son Daughter Grandpa Grandma Other:

17. WHO IS THE PRIMARY EARNER IN YOUR HOUSEHOLD? _____

18. WHAT DOES THIS PERSON DO NOW? _____

19. WHAT DID THIS PERSON DO IN 1991? _____
20. IF CURRENTLY HOUSHOLD HEAD IN NOT WORKING, WHAT IS THE REASON?
Bad health Was laid-off There was no salary, therefore I left"
Pregnancy "There's no work" Other:
21. IF HOUSEHOLD HEAD IS UNEMPLOYED, APPROXIMATELY HOW LONG HAS IT BEEN?
less than 6 months 6-12 months 1-2 years
more than 2 years overall does not work other:
22. WHAT IS YOUR EDUCATION LEVEL?
Primary High school (incomplete) High school Technical school
University Post-grad. None Other:
23. WHO LOOKS AFTER YOUR CHILDREN AGED 1.5-6 YEARS DURING WORK TIME?
grandma mother daughter other:

EDUCATION

24. How MANY OF THE BOYS IN THE HOUSEHOLD AGED 7-12 ATTEND SCHOOL? ____
25. How MANY OF THE BOYS IN THE HOUSEHOLD AGED 13-17 ATTEND SCHOOL? ____
26. How MANY OF THE GIRLS IN THE HOUSEHOLD AGED 7-12 ATTEND SCHOOL? ____
27. How MANY OF THE GIRLS IN THE HOUSEHOLD AGED 13-17 ATTEND SCHOOL? ____
28. IF ANY OF YOUR CHILDREN DO NOT ATTEND SCHOOL, WHAT IS THE PRIMARY REASON?
 (MORE THAN ONE RESPONSE ALLOWED)
No teachers Lack of footwear School is cold Lack of school feeding
Children work during school hours No school in the area Security
She/He is married Helps with family business Truancy Funds Other:
29. WHAT IS THE MAIN PROBLEM OF THE SCHOOLS? (ONLY ONE RESPONSE PERMITTED)
Books/pens Cold No teachers Electricity Children's clothing
Shoes School is damaged Tables and chairs Distance Security Other:
30. DO YOUR ABOVE-18 CHILDREN STUDY ANYWHERE? NO IF YES, WHERE?

REFUGEES AND IDPs

31. WERE ANY MEMBER OF YOUR HOUSEHOLD DISPLACED BY THE 1992-1993 EVENTS?
"My family was not displaced" IDP Refugee Other:
 (IF NO ONE WAS DISPLACED, GO TO QUESTION #35)
32. WHERE DID YOUR HOUSHOLD OR A MEMBER THERE-IN GO? _____
AFGHANISTAN DUSHANBE OTHER:

33. DO YOU REMEMBER WHEN YOU LEFT YOUR PERMANENT RESIDENCE? _____ -199
month – year

33.5. WHEN DID YOU RETURN? _____ -199
month – year

34. HAS EVERYONE RETURNED? YES IF NOT, WHERE ARE THEY? _____

AGRICULTURE AND FOOD SECURITY

35. WHAT TYPES OF LAND DO YOU UTILIZE?

LAND TYPE	AREA	Irrigated	Dry	Pasture	Flat	Sloped	Hilly
<input type="checkbox"/> Home garden	<input type="checkbox"/> Sot. <input type="checkbox"/> ha.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Presidential	<input type="checkbox"/> Sot. <input type="checkbox"/> ha.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Dehqan farm	<input type="checkbox"/> Sot. <input type="checkbox"/> ha.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Rented	<input type="checkbox"/> Sot. <input type="checkbox"/> ha.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other:	<input type="checkbox"/> Sot. <input type="checkbox"/> ha.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

“We have no land”

36. UP UNTIL 1991, HOW MUCH LAND DID YOU HAVE? _____ sotiqs hectares

37. FOR WHAT PURPOSE DO YOU USE YOUR LAND? AND WHAT YIELDS DID YOU RECEIVE IN THE LAST CULTIVATION?

Type of Use	Area	Total	Yield (kg)
Wheat	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Cotton	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Corn	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Fruits	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Vegetables	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Potatoes	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Rice	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Melons	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Forage	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		
Other use:	<input type="checkbox"/> sot. <input type="checkbox"/> hà.		

38. APPROXIMATELY HOW MANY FRUIT TREES DO YOU HAVE IN TOTAL? _____

39. APPROXIMATELY HOW MANY NON-FRUIT TREES DO YOU HAVE IN TOTAL? _____

40. WHAT PERCENTAGE OF YOUR PRODUCTION DO YOU SELL? _____% WHERE?

Neighbors Local market City market Do not sell anything
(if does not sell anything, go to question #48)

41. WHAT ARE YOUR MAIN PRODUCTS FOR SALE? Eggs Vegetables Yogurt
Cream Milk Fruits Meat Animals Other:_____

42. HOW DO YOU SELL MOST OF YOUR PRODUCTS ? retail wholesale

43. HOW DO YOU TRANSPORT YOUR PRODUCE TO THE MARKET?

By hand Truck Passenger car Tractor Horse/donkey Other:

44. HOW MANY TIMES PER MONTH DO YOU GO TO THE MARKET TO SELL YOUR GOODS?__

45. WHO SELLS THE PRODUCTS?

Husband Wife husband-wife Son Daughter Grandpa Grandma Other:

46. WHAT ARE YOUR TRANSPORT EXPENSES PER TRIP TO THE MARKET? _____

47. WHAT IS THE BIGGEST DIFFICULTY YOU FACE IN TRANSPORTING YOUR GOODS TO THE

MARKET? Distance Organized crime Government checkpoints National borders
Lack of transport Fuel No difficulty Other:_____

48. WHAT AND FROM WHERE DO YOU USUALLY ACQUIRE THE MEANS OF PRODUCTION?

MEANS OF PRODUCTION	PRICE	SOURCE	APPROXIMATE CASH COST	IN-KIND COST	TIMES PER YEAR	TOTAL PER YEAR
Tractor						
Harvester						
Fuel (liters?)						
Seeds: Wheat (price/kg?)						
Seeds: Corn (price/kg?)						
Seeds: Vegetables (price/kg?)						
Seeds: Potatoes (price/kg?)						
Seeds: (price/kg?)						
Fertilizer: (what? Kg?)						
Pesticides						
Herbicides						
Forage						
Labor						
Veterinary Services						
Other:						

49. IF THE LAND IS LEASED, WHAT IS THE PERIOD OF THE LEASE? ___ Years Unlimited

50. IF SHARE CROPPING, WHAT IS THE IN-KIND SHARE DUE? _____ %

from harvest from plan

51. WHO DO YOU HAVE A LAND CONTRACT WITH? Kolkhoz Sovkhoz Other

52. IN YOUR OPINION, WHAT IS THE BIGGEST CONSTRAINT IN MORE PRODUCTIVE USE OF YOUR LAND? (ONLY ONE ANSWER)

Insufficient or no water Soil salinity Insufficient land No land
Seeds Fertilizers Labor Funds Machinery Pesticides Other:

53. HOW MANY ANIMALS DO YOU HAVE?

Farm Animal	Quantity Now	(Pre-war) Quantity in 1991
Goats	<input type="checkbox"/> None	<input type="checkbox"/> None
Horses	<input type="checkbox"/> None	<input type="checkbox"/> None
Rabbits	<input type="checkbox"/> None	<input type="checkbox"/> None
Turkeys	<input type="checkbox"/> None	<input type="checkbox"/> None
Chicken	<input type="checkbox"/> None	<input type="checkbox"/> None
Geese	<input type="checkbox"/> None	<input type="checkbox"/> None
Donkey	<input type="checkbox"/> None	<input type="checkbox"/> None
Dogs	<input type="checkbox"/> None	<input type="checkbox"/> None
Milk Cows	<input type="checkbox"/> None	<input type="checkbox"/> None
Bulls	<input type="checkbox"/> None	<input type="checkbox"/> None
Calf	<input type="checkbox"/> None	<input type="checkbox"/> None
Sheep	<input type="checkbox"/> None	<input type="checkbox"/> None
Other:	<input type="checkbox"/> None	<input type="checkbox"/> None

54. IN THE PAST 12 MONTHS HAVE YOU SOLD OR SLAUGHTERED ANY OF YOUR ANIMALS?

Yes No Didn't have any

55. If yes, slaughtered sold

If slaguhtered, What? _____ What for? _____

If sold, What? _____ How much? _____ Usage? _____

56. WHAT IS THE MAIN PROBLEM OF ANIMAL HUSBANDRY? Forage Space Other

57. IN ORDER OF PRIORITY, WHAT ARE YOUR MOST IMPORTANT FOOD PREFERENCES:

1.	2.	3.	4.
----	----	----	----

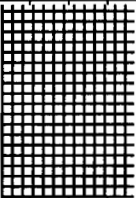
58. WHEN PREPARING BREAD, DO YOU MIX WHEAT FLOUR WITH OTHERS? NO

If yes, what % do you use? ____%Corn ____%Bran ____%Barley

59. WHAT IS THE PRIMARY SOURCE OF YOUR FUEL?

Gas Firewood Cow-dung Thistle Cotton bush Coal Electricity Other:

60. COMPARED TO 1991, HOW MUCH OF THE FOLLOWING FOOD ITEMS DOES YOUR HOUSEHOLD STORE AND CONSUME?

Food item	How much stored now	No. of times consumed per week	Source	Current consumption level (kg/week)	1991 consumption level (kg/week)
Wheat bread				<input type="checkbox"/> kg <input type="checkbox"/> pieces	<input type="checkbox"/> kg <input type="checkbox"/> pieces
Wheat-&-corn bread				<input type="checkbox"/> kg <input type="checkbox"/> pieces	<input type="checkbox"/> kg <input type="checkbox"/> pieces
Wheat-&-bran bread				<input type="checkbox"/> kg <input type="checkbox"/> pieces	<input type="checkbox"/> kg <input type="checkbox"/> pieces
Wheat-&-barly bread					
Wheat flour					
Corn flour					
Rice					
Potatoes					
Pasta					
Vegetables					
Beans/peas					
Meat (beef, goat, etc.)					
Meat (chickent, duck, rabbit, etc.)					
Fish					
Eggs				<input type="checkbox"/> kg <input type="checkbox"/> pieces	<input type="checkbox"/> kg <input type="checkbox"/> pieces
Milk				<input type="checkbox"/> litre	<input type="checkbox"/> litre
Yogurt					
Cooking oil					
Animal fat, butter					
Fresh fruits					
Dried fruits, jam, bottled fruits					
Walnuts					
Tea					
Coffee					
Sugar					
Other:					

61. APPROXIMATELY FOR HOW MANY DAYS WILL YOUR CURRENT FOOD STOCK SUFFICE? _____ days

HEALTH AND SANITATION

62. IS ANYONE IN YOUR HOUSEHOLD CURRENTLY SICK? No
Stomach ailments Skin lesions Malaria Kidney problems TB Flu
Anemia Typhoid Psychological disorder Goiter Diabetes Other
63. WHAT IS THE MAIN PROBLEM OF CLINICS OR HOSPITALS?
64. ARE ANY OF THE WOMEN OF THE HOUSEHOLD PREGNANT OR LACTATING?
65. IF YES, HOW OLD ARE THE WOMEN? _____
66. WHERE DO/DID THE PREGNANT/LACTATING WOMEN GIVE/GAVE BIRTH?
Home FAB Other: _____
67. IF THEY GIVE BIRTH IN THE HOUSE, DO YOU INVITE A DOCTOR OR MID-WIFE?
DOCTOR MID-WIFE NONE
68. HAVE YOU VACCINATED YOUR CHILDREN AGED 5 OR YOUNGER?
Yes No We have none IF NOT, WHY?
69. HOW LARGE OF A FAMILY (# OF CHILDREN) DO YOU RECOMMEND YOUNG COUPLES TO HAVE, CONSIDERING THE ECONOMIC CONDITIONS OF THE TIME? _____
70. WHAT IS YOUR WATER SOURCE?
Piped Spring Irrigation canal River Water-truck Well Other:
71. BESIDES TEA, DOES YOUR HOUSEHOLD BOIL ITS DRINKING WATER? Yes No
72. IF NOT, WHY? "We like fresh water" No fuel "Its clean" Other:

SHELTER

73. IF YOU HAVE A HOUSE, WHAT IS ITS AREA? ___ sotiqs Live in apartment
74. HOW MANY SHELTERED HABITABLE ROOMS DO YOU HAVE? _____
75. HOW MANY SQUARE METERS ARE YOUR HABITABLE ROOMS IN TOTAL?
 (m x m) + (m x m) + (m x m) + (m x m) + ... = _____ m²
76. (DO NOT READ) DOES THE ROOM YOU'RE IN HAVE DOORS AND WINDOWS?
ONLY DOOR ONLY WINDOW BOTH NEITHER

HOUSEHOLD ECONOMY

77. APPROXIMATELY HOW MUCH DOES YOUR HOUSEHOLD RECEIVE MONTHLY FROM THE FOLLOWING SOURCES OF INCOME?

SOURCE	AMOUNT/ MONTH
Pension <input type="checkbox"/> none	
Child benefits <input type="checkbox"/> none	
In-kind payments <input type="checkbox"/> none	

Remittances (in-country)	<input type="checkbox"/> none	
Government salary	<input type="checkbox"/> none	
Non-governmental salary	<input type="checkbox"/> none	
Barter	<input type="checkbox"/> none	
Market Sales	<input type="checkbox"/> none	
Rent from property	<input type="checkbox"/> none	
Business Profit	<input type="checkbox"/> none	
Borrowing	<input type="checkbox"/> none	
Begging	<input type="checkbox"/> none	
Payment for Services	<input type="checkbox"/> none	
Any other source?	<input type="checkbox"/> none	
TOTAL		

78. IN THE LAST 12 MONTHS, HAS YOUR HOUSEHOLD BEEN FORCED TO SELL ANYTHING?
No Yes; If yes, what? _____ How much did you sell it for?
What did you use the money for? _____

79. DO YOU RECEIVE MONEY FROM ABROAD OR THE FORMER USSR?
From whom? _____ Where? _____ How much?
No one's abroad from our household
There is someone abroad, but we do not receive any assistance
There is someone abroad, but s/he cannot send assistance

80. IS ANYONE FROM YOUR HOUSEHOLD GOING ABROAD OR TO THE FORMER USSR FOR EMPLOYMENT PURPOSES? Yes No
Who? _____ Where to? _____ For how long? _____

81. IF YES COULD YOU TELL ME APPROXIMATELY HOW MUCH DOES S/HE BRING BACK?
_____ RUSSIANR \$ TJR

82. WHAT TYPES OF NON-FOOD ITEMS DOES YOUR HOUSEHOLD PRODUCE?
Tailoring Handicraft None Other:

83. WHAT IS THE PURPOSE OF YOUR HOUSEHOLD SAVINGS?
Business Wedding Buy wheat Purchase food Khodaie Don't have any

84. IN THE PAST YEAR HAVE YOU BORROWED ANY OF THE FOLLOWING FROM ANYWHERE?

ITEM BORROWED		SOURCE	AMOUNT
Money	<input type="checkbox"/> no		
Food	<input type="checkbox"/> no		
Agricultural inputs	<input type="checkbox"/> no		
<input type="checkbox"/> No source to borrow from			
Other:			

85. IF YOU HAD THE OPPORTUNITY TO TAKE OUT A LOAN, WHAT WOULD YOU USE IT FOR?

- Home repairs General expenditures Buy cow Agriculture Business
 International travel Medical care No need to borrow Other:

86. IF YOUR INCOME IS NOT SUFFICIENT TO PROVIDE FOR YOU AND YOUR FAMILY, WHAT ARE YOU PLANNING TO DO? (ONE ANSWER ONLY) Our income suffices

- Sell possessions Sell farm animals Borrow money Foreign remittances
 Assistance from family and friends in Tajikistan Beg Other:

87. APPROXIMATELY HOW MUCH DOES YOUR HOUSEHOLD SPEND EACH MONTH ON THE FOLLOWING:

ITEM OF EXPENDITURE	AMOUNT	MONTHLY EQUIVALENT
Food	<input type="checkbox"/> week <input type="checkbox"/> month	
Home taxes	<input type="checkbox"/> year <input type="checkbox"/> month	
Utilities: Electricity	<input type="checkbox"/> year <input type="checkbox"/> month	
Utilities: Gas	<input type="checkbox"/> year <input type="checkbox"/> month	
Telephone and mail	<input type="checkbox"/> year <input type="checkbox"/> month	
City services	<input type="checkbox"/> year <input type="checkbox"/> month	
Transportation	<input type="checkbox"/> year <input type="checkbox"/> month	
Medical and Health	<input type="checkbox"/> year <input type="checkbox"/> month	
Hygiene	<input type="checkbox"/> year <input type="checkbox"/> month	
Clothing	<input type="checkbox"/> year <input type="checkbox"/> month	
Education	<input type="checkbox"/> year <input type="checkbox"/> month	
Fuel	<input type="checkbox"/> year <input type="checkbox"/> month	
Savings	<input type="checkbox"/> year <input type="checkbox"/> month	
Legal expenses	<input type="checkbox"/> year <input type="checkbox"/> month	
Celebrations/year	<input type="checkbox"/> year <input type="checkbox"/> month	
Holidays and funerals	<input type="checkbox"/> year <input type="checkbox"/> month	
Other:	<input type="checkbox"/> year <input type="checkbox"/> month	
TOTAL	<input type="checkbox"/> year <input type="checkbox"/> month	

88. WHO IN YOUR FAMILY DECIDES ON EXPENDITURES? MAN WOMEN BOTH OTHER:

89. IN THE PAST 12 MONTHS HAS YOUR HOUSEHOLD ACQUIRED ANY OF THE FOLLOWING? WHAT AND HOW MANY? nothing Livestock ___ Vehicle ___

Land: ___ (sotiqs) Electrical items ___ Other:

How much did you pay for the item(s)? _____

90. HOW MANY OF THE FOLLOWING MEANS OF TRANSPORT DOES YOUR HOUSEHOLD OWN THAT ARE IN WORKING CONDITION? Bicycle Donkey Horse Passenger car Truck
 Tractor Motorbike Bus None Other:

91. HOW DO YOU PROTECT YOUR HOUSEHOLD CASH SAVINGS FROM INFLATION?

- Change into \$ Change into Russian rubles Buy household items
 Buy livestock Buy wheat/flour "No cash left to save" Other:

92. IN THE NEXT 6 MONTHS, DO YOU THINK YOUR SITUATION WITH REGARD TO FOOD WILL:
 Stay the same Improve Get worse

HUMANITARIAN ASSISTANCE

93. HAS YOUR FAMILY RECEIVED ANY ASSISTANCE FROM INTERNATIONAL ORGANIZATIONS IN THE PAST 12 MONTHS?

TYPE OF ASSISTANCE	APPROXIMATE QUANTITY	SOURCE	HOW MANY TIMES?
Food	<input type="checkbox"/> No		
Tiles and timber	<input type="checkbox"/> No		
Roofing plastic	<input type="checkbox"/> No		
Small loans	<input type="checkbox"/> No		
Farm animals	<input type="checkbox"/> No		
Medicine	<input type="checkbox"/> No		
Mosquito net	<input type="checkbox"/> No		
Money	<input type="checkbox"/> No		
Educational aid	<input type="checkbox"/> No		
Other:	<input type="checkbox"/> No		

94. HAVE YOU SOLD OR BARTERED ANY OF THE HUMANITARIAN ASSISTANCE RECEIVED?

95. IF YES, WHAT WAS THE MODE OF TRANSACTION? Bartered Gave away
 Sold: What? _____ How much? _____ Other:

OTHER

96. WHAT IS THE MAIN PROBLEM FACING YOUR VILLAGE OR NEIGHBORHOOD?

ELECTRICITY FOOD POTABLE WATER UNEMPLOYMENT DO NOT KNOW OTHER:

97. HOW IS IT POSSIBLE TO DEVELOP YOUR VILLAGE (OR NEIGHBORHOOD)?

PEACE LAND REFORM HARD WORK RIGHT LEADERSHIP OTHER:

98. IN YOUR OPINION, IT WOULD BE BETTER FOR TAJIKISTAN'S ECONOMY IN THE FUTURE TO RESEMBLE WHICH COUNTRY? (READ THE ANSWERS)

FORMER USSR AMERICA IRAN GERMANY UZBEKISTAN DON'T KNOW

THOUGHTS OF THE SURVEYED HOUSEHOLD:

SURVEYOR COMMENTS:

A B C (SURVEYOR'S OVERALL RATING OF THE CONDITION OF THE SURVEYED HOUSEHOLD, "A" BEING GOOD, "C" POOR AND "B" IN BETWEEN)



**SAVE THE CHILDREN/US IN TAJIKISTAN
1998 ECONOMIC SURVEY OF BAZAARS**

1. QUESTIONNAIRE ID: _____ 2. SURVEYOR: _____ 3. DATE: _____, 1998
4. PROVINCE: _____ 5. DISTRICT/RAYON: _____ 6. BAZAAR: _____
7. QISHLAQ-UCHASTOK / CITY: _____ 8. GENDER OF INTERVIEWEE: Male Female
9. IF YOU'D LIKE TO TELL US, WHAT IS YOUR NATIONALITY?
 Tajik Uzbek Russian Kyrgyz Tatar
 Arab Turkmen Uighur Korean Other
10. IF YOU'D LIKE TO TELL US, WHAT IS YOUR REGIONAL BACKGROUND? (IF TAJIK)
 Samarghand Kulob Gharm Badakhshan Qurghonteppa
 Dushanbe Khujand Zarafshon Other: _____
11. (IF UZBEK) ...
 Lakhay/Leninsky Ghonghorat Ferghanachi Urglut Other:
12. HOW OLD ARE YOU? _____
13. ARE YOU THE OWNER OF THIS BUSINESS?
 SOLE PROPRIETER (1 OWNER) JOINT OWNERSHIP (PARTNER) EMPLOYEE
14. HOW MANY PEOPLE ARE OWNERS OF THIS BUSINESS? _____
15. WHAT IS YOUR EDUCATIONAL LEVEL? Primary High school
 High school (incomplete) Technical school University Post-grad. Other:
16. WHAT WAS YOUR PROFESSION IN 1991? _____
17. HOW MANY YEARS HAVE YOU BEEN WORKING HERE? _____ YEARS
18. WHAT WAS THE MAJOR REASON FOR BEGINNING YOUR BUSINESS?
 LOW SALARY "THIS HAS BEEN MY PERMANENT JOB" "I LIKE IT" OTHER:
19. IS THIS YOUR MAIN JOB? YES NO
20. IF NO, WHAT IS YOUR PRIMARY WORK?
21. WHAT TYPE OF GOODS DO YOU SELL? (MORE THAN ONE ANSWER POSSIBLE)
 FRUITS DAIRY PRODUCTS MEAT FARM ANIMALS FOOD STUFF BREAD
 CLOTHING/SHOES OTHER:
22. WHAT ARE YOUR WORKING HOURS?
 FROM _____ TILL _____
23. HOW MANY DAYS PER WEEK DO YOU WORK AT YOUR BUSINESS? _____ WEEK MONTH YEAR
24. WITH HOW MUCH CAPITAL DID YOU BEGIN YOUR BUSINESS? _____ TJR \$ RUSSIAN ROUBLES

25. WHERE DID YOU GET YOUR STARTING MONEY? OWN BORROWED OTHER:

26. WHERE DO YOU GET OR BUY MOST OF YOUR GOODS?

PRIVATE COMPANY OWN LAND KOLKHOZ/SOVKHOZ IMPORT: _____
WITHIN TAJIKISTAN: _____ GOVERNMENT COMPANY OTHER:

27. HOW DO YOU SELL MOST OF YOUR GOODS? WHOLESALE RETAIL

28. DO YOU BUY MOST OF YOUR GOODS IN CASH OR CREDIT?

CASH CREDIT PERSONAL PROPERTY

29. WHAT IS MORE IMPORTANT TO YOU, THE QUALITY OR PRICE OF YOUR GOODS? QUALITY
PRICE

30. IN WHAT CURRENCY OR MODE DO MOST OF YOUR TRANSACTIONS TAKE PLACE?

TJR RUSSIAN ROUBLES \$ UZBEK SUM BARTER CREDIT OTHER:

31. ARE YOU THE OWNER OF THE GOODS OR OTHERS? MYSELF OTHERS OTHER:

32. ASIDE FROM YOUR FAMILY, HOW MANY OTHER PEOPLE WORK AT YOUR BUSINESS? _____

33. HOW MUCH IS THE AVERAGE PAY OF THE EMPLOYEES? _____ DAILY MONTHLY

34. WHAT MEANS OF TRANSPORT DO YOU MAINLY USE FOR BRINGING YOUR GOODS TO THE BAZAAR?

BY HAND TRUCK PASSENGER CAR TRACTOR HORSE/DONKEY
CART BUS AIRPLANE TRAIN DO NOT USE ANYTHING OTHER:

35. FOR PURCHASING YOUR GOODS FROM ABROAD, DO YOU TRAVEL ALONE OR WITH OTHERS?

WITH OTHERS ALONE "WE DONOT GO ABROAD" OTHER:

36. IF GETTING GOODS FROM ABROAD (OR OTHER CITY), HOW MANY TIMES A MONTH OR YEAR DO YOU TRAVEL? _____ TIMES PER MONTH YEAR

37. HOW MANY DAYS DOES EACH BUSINESS TRIP TAKE? _____ DAYS

38. HOW MANY KG ON AVERAGE DO YOU BRING PER TRIP OR IS DELIVERED TO YOU?

_____ KG TON

39. TRANSPORTATION EXPENSES:

	QUANTITY	COST	TOTAL
TRANSPORTATION			
INTERNATIONAL BORDERS			
CUSTOMS			
ROAD POSTS			
FUEL			
ACCOMMODATION			
OTHER:			
TOTAL			

40. HOW MANY TYPES OF TAXES DO YOU PAY AND HOW MUCH? (ASK ALL)

TYPE OF TAX	COST (CASH OR IN-KIND)
LAND TAX	<input type="checkbox"/> DAYS <input type="checkbox"/> EVERY 3 MONTHS <input type="checkbox"/> MONTHLY <input type="checkbox"/> ANNUAL
LICENSE	<input type="checkbox"/> DAYS <input type="checkbox"/> EVERY 3 MONTHS <input type="checkbox"/> MONTHLY <input type="checkbox"/> ANNUAL
OWNERSHIP TAX	<input type="checkbox"/> MONTHLY <input type="checkbox"/> ANNUAL
OTHER:	<input type="checkbox"/> DAYS <input type="checkbox"/> EVERY 3 MONTHS <input type="checkbox"/> MONTHLY <input type="checkbox"/> ANNUAL
TOTAL	<input type="checkbox"/> DAYS <input type="checkbox"/> EVERY 3 MONTHS <input type="checkbox"/> MONTHLY <input type="checkbox"/> ANNUAL

41. BUSINESS EXPENSES:

EXPENSE	COST
BAZAAR FEES	<input type="checkbox"/> DAILY <input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY
STORE RENT	<input type="checkbox"/> DAILY <input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY
POLICE/OBSERVERS' FEES	<input type="checkbox"/> DAILY <input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY
CRIMINALS	<input type="checkbox"/> DAILY <input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY
STORAGE	<input type="checkbox"/> DAILY <input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY
INCIDENTALS, FIRE,	<input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> YEARLY
SANITATION PERMIT	<input type="checkbox"/> DAILY <input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY
STORE SETUP FEES	<input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> YEARLY
LUNCH	<input type="checkbox"/> DAILY <input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY
OTHER:	<input type="checkbox"/> DAILY <input type="checkbox"/> WEEKLY <input type="checkbox"/> MONTHLY
TOTAL	

42. HOW MUCH LOSS DO YOUR FRIENDS AND CLOSE ONES INCURE ON YOUR BUSINESS?

_____ TJR \$ RUSSIAN ROUBLES PER DAY WEEK MONTH

43. WHAT CONTRIBUTES THE HIGHEST LOSS TO YOUR BUSINESS? (ONLY ONE ANSWER)

INSTABILITY CRIMINALS TAX POLICE LACK OF MACHINERY OTHER:

44. HOW DO YOU PROTECT YOUR BUSINESS FROM YOUR COMPETITORS?

SELL CHEAPER BETTER QUALITY GOOD BUSINESS PRACTICES NOTHING OTHER:

45. HOW DO YOU DETERMINE THE PRICE OF YOUR GOODS?

IT DEPENDENTS ON: TRANSPORTATION EXPENSES CUSTOMER DEMANDS
PRICE OF BREAD DOLLAR EXCHANGE RATE RUSSIAN RUBLES EXCHANGE RATE
WITH CONSULTATION WITH OTHER BUSINESSPEOPLE OTHER:
THE OWNER OF THE GOODS DETERMINES THE PRICE PRICE IS PRE-DETERMINED

46. WHAT ARE YOUR REVENUES? _____ PER DAY WEEK MONTH YEAR

47. WHAT IS THE BUYING AND SELLING MARGIN? _____ %

48. APPROXIMATELY WHAT IS YOUR PROFIT? _____ PER DAY WEEK MONTH YEAR
IN TJR \$ RUSSIAN ROUBLES OR _____ % OF REVENUES

49. WHAT INFLUENCES YOUR REVENUES THE MOST?

QUALITY OF GOODS LOW PRICES HIGH PRICES CUSTOMER RELATIONS
CUSTOMER DEMANDS OTHER:

50. DO YOUR PRICES CHANGE CHANGE DURING OR PRIOR TO HOLYDAYS? YES NO
51. IF YES, WHY? _____
52. FOR IMPROVING YOUR BUSINESS, DO YOU BORROW MONEY? YES NO
53. IF YES, FROM WHERE? RELATIVES ACQUAINTANCES BANK OTHER:
54. HOW MUCH DID YOU BORROW? _____ TJR \$ RUSSIAN ROUBLES
55. HOW MUCH INTEREST DO YOU PAY FOR YOUR LOAN? _____% MONTH YR
56. WHAT IS THE PERIOD OF YOUR LOAN? _____ DAY MONTH YEAR
57. HOW MANY TIMES PER YEAR DO YOU BORROW? _____
58. HAVE YOU RETURNED YOUR LOAN ON TIME? YES NO OTHER:
59. IF YOU COULD BORROW, WHAT WOULD YOU DO USE IT ON?
BUY GOODS USE FOR HOUSEHOLD EXPENSES OTHER:
60. FROM YOUR HOUSEHOLD MEMBERS, WHO AIDS YOUR BUSINESS THROUGH WORK?
 _____ NO ONE
61. HOW MANY OTHERS IN YOUR HOUSEHOLD HAVE THEIR OWN BUSINESSES? _____
62. ON THE AVERAGE, HOW MANY DAYS DOES IT TAKE TO SELL YOUR GOODS? ____ DAYS MONTHS
63. HOW DO YOU PROTECT YOUR HOUSEHOLD CASH SAVINGS FROM INFLATION?
 (ONE ANSWER) Exchange into dollars Exchange into Russian roubles
Buy household items Buy livestock Buy wheat/flour "We cannot save"
64. HAVE YOU EVER BEEN BANKRUPTED? YES NO If YES, HOW MANY TIMES? ____
65. DO YOU ADVERTISE YOUR GOODS? YES NO OTHER:
66. IF YES, HOW? _____
67. DO YOU CONTRIBUTE TO CHARITY FROM YOUR REVENUES?
NO "KHODAIE" (IN MEMORY OF THE DEAD) THE POOR MOSQUE
"GHORBONI" (RELIGIOUS SLAUGHTERING OF SHEEP) "MAZOR" (RELIGIOUS SHRINE)
SCHOOL HOSPITAL OTHER:
68. IF YES, HOW MUCH DO YOU USUALLY CONTRIBUTE? _____ PER DAY WEEK MONTH YEAR
69. FOR IMPROVING YOUR BUSINESS, DO YOU WANT TO INCREASE YOUR KNOWLEDGE?
NO If YES, WHAT SPECIALIZED COURSE ARE YOU IN NEED OF?
ACCOUNTING FOREIGN LANGUGE MARKETING MANAGEMENT COMPUTERS OTHER:

70. IF YOU WERE THE CHAIRMAN OF THE BAZAAR, WHAT WOULD YOU DO TO IMPROVE BUSINESS CONDITIONS?

- WOULD DEVELOP/REPAIR THE BAZAAR REDUCE PRICES NOTHING
 REDUCE CRIME OTHER:

71. ARE YOU A MEMBER OF ANY BUSINESS ASSOCIATION? NO IF YES, WHAT TYPE?

72. IF NO, WOULD YOU WANT TO? YES NO

73. WOULD YOU WANT YOUR CHILDREN TO BECOME BUSINESSPEOPLE?

- YES NO THEY ARE BUSINESSPEOPLE

74. IF NO, WHY? _____

75. IN YOUR OPINION, IT WOULD BE BETTER FOR TAJIKISTAN'S ECONOMY IN THE FUTURE TO RESEMBLE WHICH COUNTRY? (READ THE ANSWERS)

- FORMER USSR AMERICA IRAN GERMANY UZBEKISTAN DON'T KNOW

76. WHAT IS YOUR PRIMARY WISH FOR IMPROVEMENT OF THE BUSINESS CLIMATE IN TAJIKISTAN?

- PEACE AND SECURITY IMPROVEMENT OF THE NATIONAL ECONOMY OTHER:

77. SURVEYOR COMMENTS:

78. SURVEYED SUBJECT'S THOUGHTS:

Annex III
Surveyed Districts & Provinces

Location		No. of Interviews				
		Households			Bazaars	
Province	District	Rural	Urban	District	Province	
Dushanbe	Frunze	n/a	41	41	93	66
	Oktiabr	n/a	25	25		
	Rohi Ohan	n/a	27	27		
RRS	Hissor	16	0	16	149	20
	Lenin	53	12	65		
	Shahrinav	15	0	15		
	Tursonzoda	11	5	16		
	Varzob	20	17	37		
Qurghontepa	Bokhtar	18	0	18	248	54
	Ghozimalik	31	0	31		
	Jilikul	25	7	32		
	Khojamaston	14	10	24		
	Kolkhozabad	25	1	26		
	Qubodian	23	2	25		
	Qurghontepa	n/a	40	40		
	Shahritys	25	2	27		
	Vakhsh	20	5	25		
Kulob	Danghara	23	10	33	131	21
	Kulob	22	5	27		
	Moskva	28	11	39		
	Muminabad	22	5	27		
	Voseh	0	5	5		
Leninobod	Aini	32	0	32	312	153
	Ghonchi	6	8	14		
	Isfara	10	13	23		
	Khujand	41	10	51		
	Konibadam	12	12	24		
	Maschoh	3	5	8		
	Nav	9	9	18		
	Penjikend	32	13	45		
	Rasulov	8	4	12		
	Shahristan	6	8	14		
	Urateppa	46	12	58		
	Zafarabad	13	0	13		
Badakhshan	Ishkoshim	14	0	14	87	35
	Khorog	4	24	28		
	Roshan	11	0	11		
	Roshtqalaa	15	0	15		
	Shugnon	19	0	19		
Grand Total of Interviews		672	348	1020	349	