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FY 2011–2015 Multi-Year Strategy

U.S. Government Document

The Feed the Future (FTF) Multi-Year Strategies outline the five-year strategic planning for the U.S. Government's global hunger and food security initiative. These documents represent coordinated, whole-of-government approaches to address food security that align in support of partner country priorities. The strategies reflect analysis and strategic choices made at the time of writing and while interagency panels have formally approved these documents, they may be modified as appropriate.

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Table of Contents

ABBREVIATIONS AND ACRONYMS ..... **IV**

EXECUTIVE SUMMARY ..... **V**

INTRODUCTION **9**

1. CONTEXT **11**

1.1. HISTORY AND POLITICS 11
1.2. DEMOGRAPHY 12
1.3. AGRICULTURE 13
1.4. WATER 16
1.5. BUSINESS CLIMATE 17
1.6. REMITTANCES FROM TAJIK CITIZENS ABROAD 17
1.7. GENDER 18
1.8. NUTRITION AND HEALTH 20
1.9. CROSS CUTTING ISSUES 22

1.9.1. Regional Trade *22*
1.9.2. Afghanistan *23*
1.9.3. Climate Change *23*
1.9.4. Local Government *23*

2. STRATEGIC ASSUMPTIONS **24**

2.1. FOOD IMPORTS UNAVOIDABLE 24
2.2. CROP DIVERSIFICATION IN TRADITIONAL COTTON GROWING AREAS 24
2.3. COUNTRY TAKES LEADERSHIP 25
2.4. CONCENTRATE IN KHATLON PROVINCE 26
2.5. LEVERAGE CURRENT U.S. GOVERNMENT PROGRAMS AND DONOR COLLABORATION 28

2.5.1. Activities in Khatlon *28*
2.5.2. Policy and Monitoring *30*

3. PILLAR I: ASSISTANCE TO HOUSEHOLD AND SMALL COMMERCIAL FARMS **31**

3.1. INCREASE INCOMES 31
3.2. IMPROVE AND INCREASE PRODUCTION FOR HOUSEHOLD CONSUMPTION 34
3.3. IMPROVE NUTRITION AND HEALTH 35

4. PILLAR II: BUILDING THE CAPACITY OF LOCAL INSTITUTIONS AND COMMUNITY-BASED ORGANIZATIONS **37**

4.1. AGRICULTURAL EXTENSION 37
4.2. FOCUS ON GENDER ROLES OF BENEFICIARIES 38
4.3. SUPPORT COMMUNITY-BASED CIVIL SOCIETY ORGANIZATION 39

5. PILLAR III: COMPLETION OF EFFECTIVE AGRARIAN REFORM IN SELECTED DISTRICTS OF KHATLON PROVINCE **39**

5.1. ONGOING AGRARIAN REFORM 40
5.2. NATIONAL POLICY REFORM 41

6. RISKS **42**

6.1. REGIONAL TRADE INTERRUPTED 42
6.2. CIVIL DISORDER SPILLS OVER FROM AFGHANISTAN OR ELSEWHERE 43
6.3. CORRUPTION 43
6.4. VILLAGES OR JAMOATS REFUSE TO COOPERATE 43
6.5. VALUE CHAIN DEVELOPMENT DIFFICULTIES 43
6.6. POOR DONOR COORDINATION 44

7. INTERMEDIATE RESULTS 44

7.1. INTERMEDIATE RESULT 1: MARKETS EXPANDED AND VALUE CHAINS STRENGTHENED 44

7.1.1. Domestic and Export Markets Expanded 45
7.1.2. Management and Technical Capacity of Private Input Suppliers and Private Produce Marketers Increased 45

7.2. INTERMEDIATE RESULT 2: SMALL FARM PRODUCTIVITY INCREASED 46

7.2.1. Small Farmers Assisted to Market More Profitably and to Expand Their Operations 46
7.2.2. Capacity of Multiple Forms of Agricultural Extension to Work with Farmers, Households and Rural Communities Increased 46
7.2.3. Community-Based Organizations Strengthened 47
7.2.4. Local Government Responsiveness to Community Needs Increased 47

7.3. INTERMEDIATE RESULT 3: SUCCESSFUL AGRARIAN REFORM DEMONSTRATED IN KHATLON ... 47

7.3.1. Water Users' Associations Created and Strengthened 48
7.3.2. Redevelopment/Economic Utilization of Existing Secondary and Tertiary Water Management Facilities Assisted 48
7.3.3. Additional Land for Household and Small Farms Distributed 48
7.3.4. Soil Conservation, Anti-Erosion and Water Conservation Techniques (Re)introduced and in Use 48
7.3.5. Market-Oriented Regulatory Regime for Agriculture Functioning 48
7.3.6. Market-Oriented Foreign-Trade Regime for Agriculture Functioning 49

7.4. INTERMEDIATE RESULT 4: NATIONAL POLICY RELATED TO AGRICULTURE AND NUTRITION REFORMED 49

7.4.1. Policies to Support an Agricultural Land-Use Rights Market Developed and in Place 50
7.4.2. Water Reform Policies Developed and in Place 50
7.4.3. Agricultural Policy Capacity Strengthened 50
7.4.4. Nutrition and Health Policy Improved 50

7.5. INTERMEDIATE RESULT 5: NUTRITION IMPROVED 51

7.5.1. Nutrition, Sanitation and Hygiene Education Programs Operating 52
7.5.2. Access to Potable Water in Villages Increased 52
7.5.3. Programs to Enhance Village Health in Place 52

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AISU	Agricultural Implementation Support Unit
BMI	Body Mass Index
DCC	Development Coordination Council (grouping of development donors)
Dehkan farm	Farming enterprise where shareholders have joined their land together to manage (farm) collectively
DFID	United Kingdom Department for International Development
DoD	United States Department of Defense
DRD	Direct-rule Districts (administrative districts governed directly from Dushanbe without an intervening provincial-level administrative unit)
EBRD	European Bank for Reconstruction and Development
EU	European Union
FTF	Feed the Future Initiative
FTF/T	Feed the Future, Tajikistan
GAFSP	Global Agriculture and Food Security Program (World Bank)
GBAO	Gorno-Badakhshan Autonomous Oblast
GDP	Gross domestic product
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH
GNI	Gross national income
GOTJ	Government of the Republic of Tajikistan
Hb	Hemoglobin
IFAD	United Nations International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IDA	International Development Association (World Bank Group)
IMR	Infant Mortality Rate
IR	Intermediate result
Jamoat	Rural or village council, the primary level of government in the Tajik countryside.
LSMS	Living Standards Measurement Survey
MEDT	Ministry of Economic Development and Trade of the Republic of Tajikistan. Formerly the State Planning Committee.
MICS	Multi-Indicator Cluster Survey
MNSS	Micronutrient Status Survey
SDC	Swiss Agency for Development and Cooperation
TAFF	Tajikistan Agricultural Financing Facility (EBRD project)
TLSS	Tajikistan Living Standards Survey [alternate name for World Bank LSMS]
TSEP	Tajikistan Stability Enhancement Program (USAID/DoD)
UNDP	United Nations Development Program
USAID	United States Agency for International Development
USAID/CAR	USAID/Central Asian Republics Regional Mission
USG	United States Government
USSR	Union of Soviet Socialist Republics
U5MR	Under 5 Mortality Rate
WB	World Bank
WFP	United Nations World Food Program
WHO	World Health Organization
WTO	World Trade Organization

EXECUTIVE SUMMARY

Strengthening food security in Tajikistan is a high priority for the United States Government. Strategically positioned along Afghanistan's northern border, the country has significant food security needs and tremendous opportunity to yield results in partnership with reformist leaders, the private sector, and other stakeholders. Using a targeted, whole-of-U.S. government approach, Feed the Future Tajikistan has the potential to impact incomes and nutrition in a particularly sensitive region, while building capacity to roll out reforms nationwide.

For the United States, supporting food security in Tajikistan is not merely a humanitarian venture but a critical component of a whole-of-government strategy to strengthen security in Afghanistan through increased linkages to its neighbors along a "New Silk Road" in order to advance regional integration through infrastructure and trade across Central and South Asia. Because of its 800-mile border with Afghanistan, instability or state failure in Tajikistan jeopardizes U.S. Government efforts in Afghanistan and risks the creation of a northern front, disruption of the Northern Distribution Network, and opening a safe haven for extremism. Improving food security will move significant portions of the population out of marginal livelihoods, increase social cohesion, and strengthen state institutions.

Aligned with these broader objectives, Feed the Future is an important initiative for Tajikistan, where food security needs are great. With 47 percent of Tajiks living in poverty and nearly 30 percent of children under-5 exhibiting stunted growth, food security and nutrition are priority issues. The World Food Program classifies the whole country as "chronically food insecure," and daily calorie intake is estimated to be lower than Cambodia's or Nepal's. While Tajikistan continues to benefit from the heavy infrastructure investments made during the Soviet period, much of this infrastructure is now decaying, and an estimated 40-60 percent of the population does not have access to safe drinking water. Unsafe water, poor sanitation and insufficient hygiene are commonly linked to diarrheal disease, which further exacerbates undernutrition and intensifies the risk and severity of illness, particularly among children and women of reproductive age.

Seventy-three percent of the population lives in rural areas, where the only paid jobs are seasonal manual labor on cotton farms descended from Soviet collective farms or unpaid work tending household farms with an average of 0.1 hectares of arable land per family and an average household size of seven people. Half the population is 23 years of age or younger, but there are minimal economic, civic, and social opportunities for youth. With few options at home, an estimated one million Tajik citizens are migrant workers, primarily men working in Russia. Their remittances are the highest in the world as a percentage of Gross Domestic Product (GDP).

Wheat accounts for three-fifths of the calories in the average Tajik's diet, and Tajikistan imports more than 25 percent of its wheat needs annually, mainly from Kazakhstan. Nonetheless, the opportunity costs of growing more wheat on expensively irrigated land are so high that it makes little economic sense for Tajikistan to pursue wheat self-sufficiency. Instead, much greater incomes can be generated and the availability of nutritious food at the household level can be increased by growing fruits and vegetables and improving related value chains, while importing essential staples from more efficient neighboring countries.

Moreover, fruits and vegetables are grown primarily on household farms, which are overwhelmingly operated by women. By strengthening value chains where women predominate, building agriculture capacity among women ignored by male-dominated agriculture education and extension systems, and enabling women not only to farm for subsistence but to generate income from their labor, women will

increase their control of assets. This increased control, combined with nutrition education for both women and men, will promote spending on foods and services that will contribute to improved nutrition and health. Combining food-based inputs with high-impact nutrition interventions, targeted maternal and child health and family planning services, and intensive social and behavior change communication, as well as activities to improve access to safe drinking water and improved sanitation and hygiene, further increases the potential to improve nutritional outcomes during the five-year period of the Feed the Future Tajikistan strategy.

Recognizing the many urgent needs, the Government of Tajikistan is committed to implementing a progressive set of agricultural reforms to address food security. Although Tajikistan is ranked 147th in the World Bank's Doing Business Report for 2012 and is ranked "not free" according to Freedom House, it does have a strong commitment to improving food security and is open to partnership and new ideas from international donors. The Government of Tajikistan's food security strategy is reflected in the Agrarian Policy Concept and Food Security and Agriculture Investment Plan prepared as a part of the National Development Strategy 2006-2015 and Poverty Reduction Strategy for the period 2010-2012, and enshrined in the National Food Security Strategy of 2008 and the Law on Food Security in 2010. Building on this work, over the last year the Government of Tajikistan, under the Deputy Prime Minister's leadership and with donor support, has been developing a focused land, water, and agrarian reform program. Feed the Future Tajikistan will assist the Government to finalize these strategies, update the Country Investment Plan, and, most importantly, implement these agrarian reforms.

In partnership with the international community, the Government of Tajikistan is advancing reforms that will allow farmers to make market-driven decisions, ensure that farmers have secure and marketable land use rights and will separate government policy and regulation of water resources from irrigation system operations, with an increased role for community-based water users' associations. The Government is also eager to diversify the agricultural sector by encouraging the proliferation of profitable food crops in conjunction with expanded agricultural extension opportunities. The Government is not only interested in support for national policy reform, but also in taking the first step to implement these reforms in a specific region, demonstrating concrete benefits and learning lessons that can be applied to roll out the reforms nationally.

Feed the Future Tajikistan is focused on Khatlon Province, which has the highest rates of undernutrition and the largest number of people living below the poverty line, and, except for the remote and sparsely populated Gorno-Badakhsan Autonomous Province, has the highest poverty rate in the country. Khatlon's irrigated watersheds and cotton-dominated agricultural production are also suitable places to demonstrate the effect of water and land reforms, with a particularly strong impact on women and children. There is a concentration of donor resources in Khatlon that the U.S. Government can leverage to achieve demonstrable results. Finally, given Khatlon's location along the Afghan border, improvements there directly support broader U.S. efforts to stabilize the region.

Through Feed the Future in Tajikistan, over the next five years[1]:

- An estimated 201,000 vulnerable Tajik women, children, and family members – mostly smallholder farmers – will receive targeted assistance to escape hunger and poverty.

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[1] Disclaimer: These preliminary targets were estimated based on analysis at the time of strategy development using estimated budget levels and ex-ante cost-beneficiary ratios from previous agriculture and nutrition investments. Therefore, targets are subject to significant change based on availability of funds and the scope of specific activities designed. More precise targets will be developed through project design for specific Feed the Future activities.

- Significant numbers of additional rural populations will achieve improved income and nutritional status from strategic policy and institutional reforms.

In addition, Feed the Future Tajikistan will improve nutrition knowledge, food availability, and intra-household utilization of food. Feed the Future Tajikistan will improve health behaviors and practices to both address immediate and underlying causes of undernutrition and improve maternal and child health. The Feed the Future strategy is built on three pillars.

Pillar one is assistance to household and small commercial farms to increase income and the production of food for home consumption, as well as support to improve nutritional and health outcomes.

Development of fruit and vegetable value chains will allow rural households to increase their incomes to afford more adequate and nutritious food, as well as produce more nutritious food for direct household consumption. Better household livestock management and fodder production will increase yields of meat and milk, improving access to protein and reducing pressure on the environment. Combined with these efforts will be a set of proven public health interventions to address nutritional and micronutrient deficiencies, improve feeding and dietary practices, and support the essential health care needs of women and children, focusing on pregnant women and children up to age 2.

The immediate causes of undernutrition will be addressed through the promotion of nutritional behaviors such as:

- exclusive breastfeeding;
- increased intake of vitamins, minerals, and micronutrients;
- appropriate complementary feeding, and
- improved hygiene-related practices such as hand washing.

The Government of Tajikistan will be assisted to expand the availability and consumption of micronutrients, including through food fortification and supplementation, with particular focus on achieving full salt iodization in Khatlon Province. The capacities of health facilities and communities will be strengthened to respond to disease outbreaks and manage acute malnutrition. Determinants of undernutrition will be addressed by improving access to child health and family planning support, which will prevent disease and reduce its effects, while easing the demands of pregnancy and lactation on both mothers and children.

Pillar two is building the capacity of local institutions and community-based organizations. Feed the Future Tajikistan will support public and private agricultural extension to advise farm families on production technique, natural resource conservation, food utilization, and the formation of producer groups to facilitate access to markets and inputs. It will also support village organizations to help rural residents tackle local development problems themselves. Finally, it will assist local governments in becoming more active and effective, as well as support and expand community-based health efforts.

Pillar three is completion of effective agrarian reform in selected districts of Khatlon Province. Agrarian reform includes changes in land and water relations and rights, institutions, policies and incentives. Feed the Future Tajikistan will focus on the most densely populated and poorest parts of Khatlon Province, acting in concert with substantial ongoing World Bank and International Fund for Agricultural Development (IFAD) investments. The Government of Tajikistan is eager to demonstrate the effectiveness of reforms undertaken to date, and welcomes support so that it can more assertively monitor outcomes and ensure that regional, district and community governments vigorously carry out national policies at all levels, paving the way to implement the reforms nationwide.

Strong support for food security in Tajikistan by the whole-of-U.S. Government plays a critical role in advancing reforms. This includes:

- Embassy diplomatic support for trade liberalization, agriculture policy reform, business climate improvement, and an open operational environment for assistance;
- State Department funding for small grants, exchanges, and community policing; Defense Department support for infrastructure projects and product sourcing;
- Department of Agriculture and Commerce Department assistance on data monitoring and analysis and professional exchanges; and
- USAID management of technical assistance.

This U.S. Government investment can leverage significant additional investment from other donors, especially in the target area of Khatlon. Tajikistan was awarded a grant from the multi-donor Global Agriculture and Food Security Program (GAFSP) for irrigation projects in Khatlon Province. European Union, World Bank, United Nations Institutions (FAO, UNDP, WHO, UNICEF), the Governments of Germany and Japan, and other donors all have significant investments in agriculture and nutrition. Through active donor coordination, these efforts can be aligned to yield substantial improvements in food security. With a U.S. strategic priority to stabilize the region, tremendous human need, and promising opportunities to support a country-led reform program, Tajikistan is an important country on which to focus assistance.

The analysis presented here demonstrates the potential to improve food security rapidly through increased household income, better availability of nutritious food, and focused health and nutrition interventions. These approaches draw on whole-of-U.S.-Government resources and leverage multi-donor collaboration, in partnership with national, local, and private/non-governmental counterparts. Notwithstanding the risks and challenges, investment in food security in Tajikistan warrants significant U.S. resources and attention.

INTRODUCTION

The Feed the Future (FTF) initiative integrates a new U.S. Government (USG) approach to doing business, as outlined in the Quadrennial Diplomacy and Development Review and the President's Global Development Policy directives. The initiative is a "whole-of-government" effort, bringing the resources of all appropriate agencies of the USG, in close cooperation with its development partners, to bear to sustainably reduce hunger and poverty worldwide.

The activities described here, which assume that current USG levels of investment in the Republic of Tajikistan will be approximately constant for the five years covered by this strategy, are designed to sustainably reduce hunger and poverty in Tajikistan by tackling their root causes and employing proven strategies for achieving large scale and lasting impact. Feed the Future Tajikistan (FTF/T) will help an estimated 201,000 Tajiks escape hunger and poverty in targeted districts of Khatlon Province. Significant numbers of additional rural populations will achieve improved income and nutritional status from strategic policy and institutional reforms.

The FTF/T strategy builds on the Government of Tajikistan's (GOTJ's) policies and development plans. It is congruent with the current Country Investment Plan for the agricultural sector approved by the GOTJ in 2010 and supports Ministry of Health objectives outlined in its National Health Strategy. The FTF/T strategy will also support needed further development of the Country Investment Plan.

Tajikistan ranks between Uganda and Burkina Faso in the most recent International Food Policy Research Institute (IFPRI) Global Hunger Index.[2] IFPRI estimates average daily calorie intake in Tajikistan to be lower than that of Cambodia or Nepal. When the World Food Program (WFP) initially applied its Integrated Food Security Phase Classification scale, it found that "the whole country is classified as chronically food insecure with varying degrees of vulnerability."[3] Seventy-three percent of the population lives in rural areas where the only employment, other than migration, is in agriculture, mostly subsistence farming.[4] Yet by the late spring, 90 percent of all Tajik households' food is purchased. On average, two-thirds of households' cash incomes are spent on food.[5]

Data from a 2009 nationwide sample survey show that almost half the population has an income under the poverty line (Table 1). This was a considerable improvement over a decade earlier, when 70-80 percent of the population was estimated to be living in poverty. However, global increases in food prices have hit Tajikistan hard and have undermined gains in income accrued over the last decade.

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[2] Klaus von Grebmer, et al., *2011 Global Hunger Index: The Challenge of Hunger: Taming Price Spikes and Excessive Food Price Volatility* (Bonn, Washington, DC, Dublin: Welthungerhilfe, IFPRI, Concern Worldwide, October 2011), p. 17.

[3] United Nations World Food Programme, "Executive Brief: Tajikistan Integrated Food Security Phase Classification (IPC)" (April 2008), p. 1.

[4] "О предварительных итогах переписи населения и жилищного фонда 2010 года \\ Сообщение Агентства по статистике при Президенте Республики Таджикистан [On the preliminary results of the 2010 census of population and housing: Report of the Statistical Agency of the President of the Republic of Tajikistan]," (Dushanbe, May 30, 2011)

[5] United Nations World Food Programme, *Tajikistan Food Security Monitoring System Bulletin,* number 9 (Dushanbe: WFP, May 2011), p. 5.

Table 1. Percent of Population of Tajikistan in Poverty, 2009[6]

	Urban	Rural	Total
Relative poverty	24.3	31.7	29.7
Extreme poverty	17.5	17.5	17.5
Total	41.8	49.2	47.2

While there is broad support for improving nutrition and food security in Tajikistan, "food security" is often incorrectly equated with food self-sufficiency. Given the country's severely limited arable land and high population density in areas where agriculture is possible, self-sufficiency in grain production is almost certainly impractical and surely not the most effective path to economic growth and development.

Therefore, the Feed the Future Strategy for Tajikistan assumes that the country will continue to import staple agricultural commodities. It also assumes that the country will follow through on plans to pass and implement policies which will lead to diversification and give the rural population access to the resources they need to create a more productive and profitable agricultural and food sector. Food security will improve through more certain import supplies, increased rural incomes, and better availability of household food products.

The FTF/T strategy is built on three pillars.

Pillar one is assistance to household and small commercial farms to increase income and food for home consumption, and support to improve nutritional and health outcomes.

Development of fruit and vegetable value chains will allow rural households to increase their incomes to afford more adequate and nutritious food, as well as produce more nutritious food for direct household consumption. Better household livestock management and fodder production will increase yields of meat and milk, improving access to protein and reducing pressure on the environment. Combined with these efforts will be a set of proven public health interventions to address nutritional and micronutrient deficiencies, improve feeding and dietary practices, and support the essential health care needs of women and children, focusing on pregnant women and children up to age two.

The immediate causes of undernutrition will be addressed through the targeted and community-based promotion of nutritional behaviors such as: exclusive breastfeeding; increased intake of vitamins, minerals, and micronutrients; complementary feeding to prevent and treat severe undernutrition; and improved hygiene. The GOTJ will be assisted to expand the availability and consumption of micronutrients, including through food fortification and supplementation, with particular focus on achieving full salt iodization in Khatlon Province. The capacities of health facilities and communities will be strengthened to respond to disease outbreaks and manage acute malnutrition. Determinants of undernutrition will be addressed by improving access to child health and family planning support, which

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[6] Source: World Bank, *Europe and Central Asia Information Brief: Tajikistan Poverty Update 2007-2009* (Washington: World Bank, n.d. [September 2010]), p. 1. Data cited in source to 2009 Tajikistan Living Standards Survey. According to the source, the relative poverty line was "constructed using the cost-of-basic-needs approach whereby the poverty line depends on the cost of buying a diet of 2,250 calories per capita per day and an allowance for non-food consumption." Sixty-four percent "is food-consumption and 36 percent is non-food consumption." The "extreme poverty line … corresponds to the amount of money necessary to purchase the abovementioned basic diet (i.e. 64 percent of the poverty line)."

will prevent disease and reduce its effects, while easing the demands of pregnancy and lactation on both mothers and children.

Pillar two is building the capacity of local institutions and community-based organizations. FTF/T will support public and private agricultural extension to advise farm families on production technique, natural resource conservation, food utilization, and the formation of producer groups to facilitate access to markets and inputs. It will also support village organizations to help rural residents tackle local development problems themselves. Finally, it will assist local governments in becoming more active and effective, as well as support and expand community-based health efforts.

Pillar three is completion of effective agrarian reform in selected districts of Khatlon Province. Agrarian reform includes changes in land and water relations and rights, institutions, policies and incentives. FTF/T will focus on the most densely populated and poorest parts of Khatlon Province, acting in concert with substantial ongoing World Bank and International Fund for Agricultural Development (IFAD) investments. FTF/T, in cooperation with the people of those districts and multiple donor efforts, will also demonstrate how successful holistic agrarian reform can be in one large region as a first step toward implementation across the country. The GOTJ is eager to demonstrate the effectiveness of reforms undertaken to date, and welcomes support so that it can more assertively monitor outcomes and ensure that regional, district and community governments vigorously carry out national policies at all levels.

1. CONTEXT

1.1. HISTORY AND POLITICS

Tajikistan is a recent post-conflict, post-Soviet country. Since the mid-1800s, the territory of modern Tajikistan has served largely as a producer of cotton to support textile industries in Russia and the USSR. The Republic of Tajikistan declared its independence on November 7, 1991, as a result of the collapse of the Soviet Union. By then, civil war already wracked the new state. Initially a struggle among colonial and post-colonial elites to control the country's resources, it became an anarchic conflict among local populations and petty warlords that was further stoked by the emergence of the Taliban in neighboring Afghanistan. Ethnic and regional divisions were a key factor in the civil war, and today clan-based loyalties continue to play a role in Tajik society. Indeed, much of the fiercest fighting was concentrated in Khatlon Province because of its cotton wealth and the mixture of people who had been forcibly resettled during the Soviet period in order to populate cotton-growing farms made possible by Soviet irrigation projects. Large-scale conflict lasted only about a year from 1992-1993. But fighting flared up repeatedly until the United Nations (UN), Russia and Iran finally brokered a settlement in 1997.

Until 1991, direct transfers from Moscow made up 40 percent of the Tajik SSR's budget.[7] The loss of those subsidies and of protected markets in Russia, combined with the destruction of civil war, essentially destroyed Tajik agriculture and sharply reduced spending on physical and social infrastructure. Despite frantic efforts by the new Dushanbe government to support it, the collective farm system

[7] Under Soviet rule from 1929 until 1991, the area that is now the Republic of Tajikistan was formally called the "Tajik Soviet Socialist Republic," or "Tajik SSR."

largely collapsed during the civil war. However, the large cotton farms remained largely intact and slow to restructure.[8]

The citizens of Tajikistan know about, and discuss, these very serious problems. However, the governing leadership has been able to secure basic peace and civil order since 1997, and this important accomplishment continues to serve as a major basis for its support among the population at large.

1.2. DEMOGRAPHY

According to the preliminary results of the 2010 census, Tajikistan has a population of 7,565,500 people, a 23 percent increase since 2000. The growth was evenly distributed between urban and rural areas, so the population distribution of 73 percent rural and 27 percent urban has not changed in the last decade.[9]

Tajikistan has a young and growing population. The median age is 22.1 years for men, and 23.1 years for women.[10] Although this is not the youngest population in the world, the median age statistics indicate that there is and will continue to be a striking need for employment for youth. However, if employment can be found, Tajikistan might benefit from the demographic dividend of a very large working-age population to boost its economic growth.

With a crude birth rate of 26.29 births per 1,000, Tajikistan has the highest birth rate among the former Soviet countries and is 54th out of 221 countries, between Belize (26.43/1000) and Laos (26.13/1000).[11] With a mortality rate of 6.60 deaths per 1,000, Tajikistan ranks 146th of 221 countries, between Mauritius (6.68/1,000) and Papua New Guinea (6.58/1,000).[12] The long-term trend in population growth rate has fallen from a peak of 3.89 percent annually in 1960 to a low of 0.81 percent annually in 2003, but it has turned up since. Table 2 shows comparative 2011 birth and mortality rate estimates.

Table 2. Crude Birth and Mortality Rates in Central Asian Countries, 2011[13]

Country	Crude birth rate		Country	Crude mortality rate	
	Per 1000	World rank (of 221)		Per 1000	World rank (of 221)
Afghanistan	37.83	17	Afghanistan	17.39	2

[8] An analysis of the cotton farming system as it evolved and operated after independence is *Tajikistan: Welfare Implications of Cotton Farmland Privatization: A Poverty and Social Impact Analysis* (Washington, D.C.: World Bank, June 24, 2004). The near-collapse of the system in 2007 is described in Don Van Atta, "'White Gold' or Fools' Gold: The Political Economy of Cotton in Tajikistan," *Problems of Post-Communism*, vol. 56, no. 2 (March/April 2009), pp. 17-35.

[9] "Preliminary results of the 2010 census," footnote 4. The absolute numbers for population are: Urban, 2,005,000; rural, 5,560,000 persons. By province, the rural population as a percent of total population is: Gorno-Badakhshan AO, 86 percent; Sughd, 75 percent; Khatlon 83 percent; Direct-rule districts and towns, 87 percent (pp. 2-3).

[10] http://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&met_y=sp_pop_grow&idim=country:TJK&dl=en&hl=en&q=tajikistan+population+growth+rate, accessed January 16, 2012.

[11] CIA World Fact book on-line, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2054rank.html?countryName=Tajikistan&countryCode=ti&regionCode=cas&rank=54#top, accessed January 16, 2012.

[12] CIA World Factbook online, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2066rank.html?countryName=Tajikistan&countryCode=ti&regionCode=cas&rank=146#ti, accessed January 16, 2012.

[13] Source: Footnotes 10, 11.

Tajikistan	**26.29**	**54**	Kazakhstan	9.38	63
Kyrgyzstan	23.66	70	Kyrgyzstan	6.79	144
Turkmenistan	19.54	91	**Tajikistan**	**6.60**	**146**
Uzbekistan	17.43	114	Turkmenistan	6.24	157
Kazakhstan	16.65	121	Uzbekistan	5.29	177

The maternal mortality ratio as of 2008 was reported to be 64 maternal deaths per 100,000 live births, ranking Tajikistan 90th of 221 countries.[14]

According to the World Bank,

> Tajikistan's Millennium Development Goal … target for a two-thirds reduction in child mortality requires an infant mortality rate (IMR) of 29.6 and the under-5 mortality rate (U5MR) of 39.3 by 2015. The most recent estimates place the IMR at 52 per 1,000 live births and the U5MR at 61 per 1,000 live births.[15]

With these rates, the World Bank analysis concludes, it is unlikely that Tajikistan will meet its Millennium Development Goal target.

1.3. AGRICULTURE

In Tajikistan, agriculture accounts for 23 percent of GDP and employs 75 percent of the labor force.[16]

Only about seven percent of Tajikistan's land surface is arable. Because of its mountainous topography, the country has the smallest endowment of arable land of any Central Asian country, 0.1 hectare per capita.[17]

Almost all farm work is manual labor, done mostly by women, who are always responsible for the household plots and are mobilized for poorly paid unskilled labor on commercial farms during cotton planting, thinning and harvest.[18] Although the situation is now changing as a result of better enforcement, child labor has often been winked at by families who need the income.[19]

The standard Soviet pattern for rural development created very large collective and state farms that provided for all their residents' needs.[20] Agricultural storage and processing facilities were located in district towns to ensure that the state controlled the farms' produce. Facilities were built to have a monopoly over a given area, since there was no reason for competition when the state-set prices reflected a planner's idea of how much was needed.

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[14] CIA World Factbook online, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2223rank.html?countryName=Tajikistan&countryCode=ti&regionCode=cas&rank=90#ti, accessed January 16, 2012.
[15] *Republic of Tajikistan: Quality of Child Health Services in Tajikistan* (Washington: The World Bank, June 2011), p. 1.
[16] *World Bank – Tajikistan Partnership Program Snapshot* (Dushanbe, World Bank Country Office, September 2011), p. 6. Most agricultural "employment" is in fact unpaid labor on household farms.
[17] Calculated from the State Committee on Land Management of the Republic of Tajikistan, *Land Balance, 2009.*
[18] Helen Shahriari, Alexander M. Danzer, Renee Giovarelli and Asyl Undeland, *Improving Women's Access to Land and Financial Resources in Tajikistan* (Washington, D.C.: World Bank, 2009).
[19] See, for instance, Hodzhamahmad Umarov, *Research report "Monitoring of child labour use in the cotton fields in Tajikistan*" (Dushanbe: International Organization for Migration, March 2011), http://www.iom.tj/pubs/cotton-eng.pdf.
[20] "The land, subsoil [and minerals], water, air space, the animal and plant life and other natural resources are the exclusive property of the state and the state guarantees their effective use in the interests of the people."

In 1990, all Tajik SSR agricultural land was organized into 562 collective and state farms. Land reform begun in 1991 is still far from completed. Many large farms were broken up so that their former internal production units became independent. Individuals and families have been allowed to take specific small land parcels and organize their own independent farm businesses. There are now more than 35,000 commercial farms in the country.

However, many of the bottomland cotton farms have not yet been really affected by the ongoing land and agrarian reform.

All land remains state-owned since the Constitution declares that all land is the exclusive property of the state as representative of the people of Tajikistan.[21] Individual farmers and farms are given use rights. Plots for agricultural use can be leased directly from local government or within larger farms. Land use rights are, within certain restrictions, transferrable.

Under Soviet rule, farm workers' households had the legal right to a small amount of land, commonly called their "private plot," on which they could build a home and conduct their own small farming operation.[22] Rural residents, such as teachers and doctors, who were not farm members or employees, as well as most urban residents, also had the right to somewhat smaller plots of agricultural land for gardens and micro-farms.

Tajik families retain these rights to what are now called "household farms." They provide vital food supplies and much of the family income. According to the World Bank's 2007 national Living Standards Measurement Survey (LSMS), food produced by households makes up one quarter of household incomes in urban areas and 40 percent of household incomes in rural areas (Table 3).

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[21] "The land, subsoil [and minerals], water, air space, the animal and plant life and other natural resources are the exclusive property of the state and the state guarantees their effective use in the interests of the people." Constitution of the Republic of Tajikistan as amended in 2003, article 13.

[22] Since the land was and is owned by the state, "private plot" is, strictly, a misnomer.

Table 3. Sources of Household Income by Consumption Quintile, Percent[23]

Quintile	Urban Households				
	Wages	Household Farm	Remittances	Net Agricultural Income	Social Protection
Poorest	54	23	9	2	6
2	47	29	10	3	4
3	50	29	8	1	4
4	50	26	11	1	5
Richest	55	22	8	1	5
Total	51	26	9	2	5

Quintile	Rural Households				
	Wages	Household Farm	Remittances	Net Agricultural Income	Social Protection
Poorest	38	35	11	10	4
2	36	39	10	8	4
3	34	41	11	8	3
4	32	44	11	7	3
Richest	35	39	11	8	3
Total	35	40	11	8	3

Shares of household income do not add up to 100 percent because "other" category has been omitted. "Social protection" income includes pensions, unemployment compensation, and other transfer payments.

Legally these household farms are for subsistence and home consumption only, but the household can either sell produce to locals or traders or take it themselves to urban bazaars. However, the World Bank LSMS data suggests that a very small amount of household farms' produce is sold, since, as Table 3 shows, even for rural households, net agricultural income is at most 10 percent of overall household income.

Because household farms are more carefully and more intensively operated and because their products are mostly of higher value than the commodities produced on large farms, they produce more than half of all agricultural output by value in Tajikistan.

The household farms have not increased much in size due to restrictions on land use and transfer. According to the State Committee on Land Management, at the beginning of 2009 the average family in Khatlon Province had a household farm of 0.16 hectares of arable land. The failure of the highly productive household farms to grow in size may in part reflect the cultural assumption that they are "subsidiary" and women's and children's concern.

Collective and state farms and the various new units—so-called "*dehkan* farms" ("dehkan" is a Tajik word which translates as "peasant" in English)—created from them by land reform are called "commercial farms" throughout this strategy to distinguish them from household farms, which are legally

[23] Source: *Tajikistan: Economic and Distributional Impact of Climate Change* (Washington, D.C.: World Bank, n.d. [pdf created August 9, 2011]), p. 23. Original source note: "TLSS [LSMS] 2007 estimates

non-commercial. There is little practical difference between small commercial farms and household ones. Throughout this strategy, household farms and small commercial farms created by land reform are referred to as "smallholder farms."

Wheat accounts for almost three-fifths of calories consumed per capita.[24] Food wheat is grown by some commercial farms and most households—the small household farms produce more than 40 percent of the country's total wheat supply.[25] However, even in 2010, a very good year when grain sown areas were larger than usual, about 500,000 tons of grain—about one-quarter of annual consumption—was officially reported as imported.[26] Even subsistence-farming smallholders in wheat-growing regions do not produce enough grain to satisfy their own households' annual needs.[27]

More than 90 percent of all livestock is held by households. According to the 2007 LSMS, more than 80 percent of rural households have at least one cow or sheep. Because of shortage of pasture and fodder, these animals are not very productive, but they are one of the most important stores of household wealth.

Public services and utilities are almost entirely lacking in the countryside. Under Soviet rule the collective and state farms built and subsidized health and educational facilities, secondary and tertiary roads and utilities, as well as social facilities such as stores and community centers. Since 1991 almost all of those facilities in rural areas have fallen into extreme disrepair.

Older rural residents who were educated before 1991 were well trained in relatively narrow specialties. However, there was no training in the general farm management skills that are essential in market-oriented agriculture. The education level of younger rural residents is significantly lower because of the civil war and economic collapse. The Soviet-era system for continuing education and agricultural extension has also disintegrated, leaving almost all rural residents without any source of agronomic, economic or management information and help.

1.4. WATER

The Amu Darya and Syr Darya rivers provide almost all of Tajikistan's water, 90 percent of which is used for agriculture. Their water is shared among the Central Asian Republics according to an unsustainable water-sharing agreement first established during the Soviet period to increase cotton production. As a result, the Aral Sea, the outlet of these rivers, shrank by 90 percent between 1960 and 2010. [28] Much of the continuing conflict between Tajikistan and Uzbekistan concerns water allocations.

Less than a third of Tajikistan's limited arable land can be cultivated without irrigation. The Soviet state funded and built all irrigation facilities to serve the large farm fields. Now, because of the disrepair of the system and power outages, irrigation water shortages are usual.

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[24] von Grebmer, et al., *2011 Global Hunger Index,* p. 36.
[25] Calculated from *Sel'skoe khoziaistvo Respubliki Tadzhikistan: Statisticheskii sbornik* (Dushanbe: State Committee on Statistics of the Republic of Tajikistan, 2007), pp. 141-144, 149-152.
[26] Calculated from the 2010 grain balance in *Продовольственная безопасность и бедность,* number 2 (Dushanbe: Агентство по статистике при Президенте Республики Таджикистан, 2011), p. 135.
[27] Aziz Jalolov, et al., *The Impact of Volatile and Increasing Food Prices on Smallholders: Findings from interviews with 300 rural farm households in Khatlon Province* (Bonn, Dushanbe: Deutsche Welthungerhilfe e.V., 2011).
[28] "How the Aral Sea - once half the size of England - has dried up," *Mail Online* (April 5, 2010), http://www.dailymail.co.uk/news/article-1263516/How-Aral-Sea--half-size-England--dried-up.html?printingPage=true.

Paradoxically, approximately 60 percent of irrigated land suffers from water erosion and secondary salinization as the result of overuse of irrigation water and failure to keep drains clean. In the lowlands where FTF/T efforts will be concentrated, erosion and salinization cause an estimated 4,000-5,000 hectares of formerly irrigated arable land to be taken out of production each year.[29]

Water resources are administered by district-level agencies that maximize water availability to ensure that their own district fulfills the government cotton production forecast often at the expense of downstream users. A 2009 World Bank study found that water is allocated to each commercial farm in the irrigated lowlands according to the number of hectares under cotton cultivation. The study further notes that:

> Because villagers get their water from canals used to irrigate the cotton fields, they are locked into the existing cotton production arrangements even though they could earn more income from raising fruits and vegetables. Furthermore, since drinking water provision was not explicitly planned for when the irrigation infrastructure was developed, it remains a pressing need for people and livestock, especially during the winter months.[30]

The district agencies are also responsible for collecting payment for water. Because the large farms that use most of the water for their cotton crops are mostly unprofitable and water is often not provided as promised in any case, the agencies are seldom paid, making the Ministry of Land Reclamation and Water Resources one of the biggest debtors to the national budget. As part of the current national agrarian reform efforts, basin-wide water management is to be introduced. This reform is an essential part of efforts to improve food security and reduce poverty in rural Tajikistan.

1.5. BUSINESS CLIMATE

Agriculture, even household farming, is a business, and thus is deeply affected by the overall business climate. Tajikistan has taken some positive but limited steps to improve the business climate in recent years, ranking among the World Bank's top ten most improved countries for business climate in 2010 and 2011.[31] The country moved up another five places in 2012 over 2011, but still remains 147th out of 183 countries on its ease of doing business ranking.[32]

However, the GOTJ commitment to reform now makes it possible to use agrarian reform to accelerate improvement in the overall environment for business.

1.6. REMITTANCES FROM TAJIK CITIZENS ABROAD

Real, as opposed to nominal, unemployment in Tajikistan is still catastrophically high. Few industries are operating, and effectively the only employment in the countryside is seasonal work on large cotton farms or cultivation of household farms. As a result, skilled and unskilled workers leave to seek work abroad. More than one million of Tajikistan's 7.5 million people are estimated to be working abroad, mostly in Russia. The lengthy absences of males, often for years at a time, have very damaging effects on households and communities.

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[29] ADB citing Tajikistan Ministry of Agriculture, 2003.

[30] *Agricultural Activities, Water, and Gender in Tajikistan's Rural Sector: A Social Assessment of Konibodom, Bobojon Ghafurov, and Yovon* (Washington, D.C.: World Bank. August 2009), p. x.

[31] *World Bank – Tajikistan Partnership Program Snapshot* (Dushanbe, World Bank Country Office, September 2011) p. 3.

[32] International Finance Corporation/World Bank, "Ease of Doing Business in Tajikistan," http://www.doingbusiness.org/data/exploreeconomies/tajikistan/, accessed December 13, 2011.

The equivalent of more than 40 percent of the country's current GDP comes from citizens who work in the Russian Federation and Kazakhstan, which is the highest proportion of remittances to GDP in the world.[33] Future remittances flows may be variable and uncertain since they depend largely on Russian economic conditions and Russian policy toward migrants.[34] Nevertheless, for now, remittances are an important source of funds for many families to meet daily consumption needs, as well as to provide limited amounts of savings.

An interesting side effect of remittances, pointed up in the 2007 USAID Land Reform Project evaluation survey, is that members of households which receive remittances, especially women, are much less willing to work as seasonal manual laborers in the cotton fields because they have alternate, larger sources of income. Thus, the increasing dependence of the economy on remittances lessens the availability of low-cost labor for cotton production.

While they continue, remittances represent an important potential for investment in agriculture. If and when rural residents see that farming is profitable and that the business climate risks are predictable, they will invest in their own land, as farmers elsewhere do with their own funds.

In the longer run, Tajikistan must create more attractive jobs, first in rural areas and then in cities, in order to maintain its population and reduce its overreliance on the export of labor to solve economic and social problems.

1.7. GENDER

The Soviet regime sought to give women more equality within the family and in economic life, seeing newly empowered Central Asian women as a major source of potential political support for the regime.[35] Since 1991, the women of Tajikistan have lost many of those gains. Women lack control over resources even within the household. It is traditional in Tajikistan for a woman to live with her husband's family when she marries, and her position is subordinate to her in-laws. Women in rural areas are responsible for childrearing, caring for sick or elderly relatives, subsistence agriculture and livestock management, and getting water and firewood for the family. Yet their contributions to the household are not highly valued.

> A women's labor at home, including work on household land plots, is not considered 'work' *per se,* and confers no rights to assets. Interviewed villagers noted that women were engaged in chores for as much as 18 hours a day, but this was not considered 'work.' Even in cases where married women engage in revenue-generating activities through home production of crafts, the husband controls the benefits and revenues

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[33] Calculated from data supplied with the World Bank *Migration and Remittances Factbook 2011* (Washington, D.C., 2011). On the growing dependence on remittances, see the September 2011 UNDP *Monitoring and Early Warning in Tajikistan: Monthly Report,* p. 17.

[34] For instance, the head of the Russian Consumer Product Safety Commission, Gennadii Onishchenko, recently proposed banning Tajik migrants because they spread HIV/AIDS, tuberculosis and polio. "Глава Роспотребнадзора Г.Онищенко выступил за полный запрет трудовой миграции из Таджикистана [The head of Rospotrebnadzor G. Onishchenko has called for the complete prohibition of labor migration from Tajikistan]," *Ferghana.ru* (November 14, 2011), http://www.fergananews.com/news.php?id=17622&print=1.
On the harsh choices faced by Tajik labor migrants in Russia, see Hillary Hemmings, *Remittances, Recession… Returning Home? The Effects of the 2008 Economic Crisis on Tajik Migrant Labor in Moscow,* Kennan Institute Eurasian Migration Papers, number 4 (Washington, D.C. Woodrow Wilson Center for Scholars-Kennan Institute Comparative Urban Studies Project, 2010).

[35] Gregory J. Massell, *The Surrogate Proletariat: Moslem Women and Revolutionary Strategies in Soviet Central Asia, 1919-1929* (Princeton: Princeton University Press, 1974).

> stemming from these activities. Women within active marriages are seen as being burdens on the man. Interviewees consistently noted that even when husbands are absent through labor migration, control over the use of assets, including remittances, lay with the husband's direct relatives, and not with the wife.[36]

There have been cases where women are legally married, but local traditions and conditions prevent them from claiming rights to property. Sometimes their migrant husbands return with a new wife and family and proclaim that they divorce the previous wife, leaving women without property rights or power. In some areas families headed by women have been denied shares when the right to use collective and state farm land was distributed during decollectivization. The refusal was justified by the claim that female-headed households do not have the available (male) labor to cultivate their own land. In a 2011 survey, farm members said that only 10 percent of women are named on farms' land use certificates, the basic proof of rights to land. Two-thirds of the respondents said they were not sure why women were not listed. Five percent said the reason women were not listed was due to taxes, and 21 percent said women preferred to keep the certificate in the man's name.[37] If their husbands die, women may lose access to land: inherited land goes to women in less than one out of seven cases. Even if a woman receives the share of land to which she should be entitled as a former collective farm member or state farm employee, she may have difficulty registering it in her name.

Gender stereotypes in Tajikistan reinforce discriminatory practices. Women are expected to undertake the hard physical work of planting, weeding and picking cotton. More highly paid jobs requiring the operation of machinery are thought to be inappropriate for women. Few women are decision makers on commercial farms.

In very conservative regions, women need their husband's approval to leave the house even if he is not there; some call their migrant husbands multiple times a day for permission for routine activities, such as food shopping. Women are commonly excluded from family decisions that have a direct impact on them, even a husband's decision to work abroad.

Women become the de facto head of the household when their husbands migrate, yet there is little social acceptance or government support for this role. In general, they receive limited support for their rights from government. Women are often unaware of their rights under Tajik law. Those rights are frequently ignored; for instance, although the Labor Code of Tajikistan requires that maternity leave be given to all employees, a 2011 survey reported that only about 30 percent of commercial farm heads said that they would give women maternity leave. [38]

Customary practices also restrict many women from realizing their rights. As one example, women typically lack market knowledge:

> To the extent that information is power, women are disadvantaged… Tajik women are characterized by a high level of isolation. Traditions and religious taboos do not

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[36] Reneé Giovarelli and Asyl Undeland, *Understanding Household Level Barriers Constraining Women's Access to Land and Financial Resources in Tajikistan* (Dushanbe: World Bank Country Office and USAID Land Reform Program, September 2008).

[37] Kahramon Bakozoda, Ruslan Nabiev, Jamshed Haydarov, "Survey Report: Assessment of legal issues of farmers in Tajikistan and knowledge of their rights" (Dushanbe: Helvetas, Center of Sociological Researches. Helvetas, funded by Swiss Association on International Cooperation (SDC): 2011).

[38] Bakozoda, et al.

encourage women's networking and exchange of information. In general, access to information is extremely difficult.[39]

The costs and impediments, both formal and informal, connected to the process of business registration and market participation are additional obstacles to women's economic opportunities.

Worldwide, the nutritional status of children is more related to women's income than to men's income; women tend to use more resources for the family.[40] Gender inequities in compensation for labor and control of household resources severely constrain women's ability to change dietary patterns.

When women do not directly control remittances or other income and feel powerless to take action independently, they may be unable to purchase sufficient nutritious food, medicine or health services. The ability to access a diverse, nutritious diet depends on increased income to effect some changes in the poorest households. Most critically, all members of the household need to be convinced that it is in everyone's interest to allocate more resources for better nutrition, especially to ensure that children reach their full potential in mental and physical growth.

1.8. NUTRITION AND HEALTH

Undernutrition among women and children in Tajikistan is a serious public health problem. It not only contributes significantly to maternal and child morbidity and mortality, but perpetuates the cycle of poverty and hunger by compromising long-term physical growth and health, cognitive development and educational performance, and reproductive outcomes. Maternal and child undernutrition is also associated with reduced productivity and lifetime earnings, leading to lower economic status in adulthood with effects that spill over to future generations. Malnutrition is an intergenerational occurrence, and the nutritional status of women before and during pregnancy is a key determinant of the survival and health of their infants. Many women enter pregnancy malnourished. Maternal malnutrition compromises growth in the womb and predisposes infants to low birth weight. Low birth-weight infants face higher risk of mortality; those that survive may suffer from cognitive or developmental problems as well as a higher burden of disease than children born at normal weight. Moreover, low birth-weight infants that remain poorly nourished during childhood grow up to be stunted adults who give birth to small infants.

Khatlon has the highest rates of malnutrition in Tajikistan, as reflected in the results of the 2009 UNICEF Micronutrient Status Survey (MNSS, Table 8). Based on anthropometric assessments carried out nationally, Khatlon was found to have the highest prevalence of children under 5 with low height-for-age (stunting, 37 percent), low weight-for-age (underweight, 10 percent), and low weight-for-height (wasting, 5 percent). These reports are consistent with the findings of the 2005 UNICEF Multi-Indicator Cluster Survey (MICS) that Khatlon had the highest under-5 mortality rate and infant mortality rate in Tajikistan, 102 and 81 deaths per 1,000, respectively.

Stunting, iodine deficiency and maternal and child anemia represent the largest burden of undernutrition in Tajikistan. Chronic undernutrition, or stunting, affects nearly 30 percent of children under 5. Many women and children also suffer from micronutrient deficiencies, reflected in high rates of anemia and iodine deficiency. In fact, nearly three-quarters of children in Khatlon showed iodine deficiency, far greater than the national average of 53 percent. Khatlon also had the highest proportion of women of reproductive age who were severely anemic, underweight and iodine deficient, with nearly 8 in 10

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[39] Giovarelli and Undeland, September 2008.
[40] Kathleen M. Kurz and Charlotte Johnson-Welch, Enhancing Nutrition Results: The Case for a Women's Resources Approach, ICRW, 2000.

women in Khatlon iodine deficient. Iodine and iron deficiency, particularly during pregnancy, hinders fetal development and can cause impaired mental and physical function. Anemia in mothers increases the risk of hemorrhage and maternal death during childbirth and predisposes to stillbirth and neonatal mortality.

Table 8. Health and Nutrition Indicators, Khatlon and Sughd Provinces, 2009[41]

	Khatlon	Sughd	All Tajikistan
CHILDREN Age 6-59 months			
Low height-for-age (stunting)	36.9%	27.9%	28.9%
Low weight-for-age (underweight)	10.5%	5.9%	8.4%
Low weight- for-height (wasting)	4.9%	2.3%	4.5%
Anemia			
Overall (Hb<10.9g/dL)	24.9%	29.3%	28.8%
Moderate & Severe (Hb<10g/dL)	7.1%	11.3%	10.2%
Iodine insufficiency (UI<100ug/L)	73.2%	18.9%	52.9%
WOMEN Age 15-49 years			
BMI <18.5 (underweight)	7.9%	5.6%	6.7%
BMI > 25 (overweight or obese)	25.0%	25.6%	28.2%
Anemia			
Overall (Hb<11.9g/dL)	24.9%	19.0%	24.2%
Moderate & Severe (Hb<10g/dL)	5.8%	2.3%	4.3%
Iodine insufficiency (UI<100ug/L)	84.8%	19.7%	56.0%

In summary, MICS findings indicate that micronutrient deficiencies, insufficient food intake, inadequate infant and young child feeding practices including insufficient levels of exclusive breastfeeding and appropriate complementary feeding, the demands of pregnancy and lactation, and frequent infections remain major determinants of undernutrition in Tajikistan.

Overall, diets are poorly balanced with little diversity, lacking adequate proteins, fats, vitamins, and minerals. Wheat accounts for almost three-fifths of calories consumed per capita.[42] There is overconsumption of low-nutrient value carbohydrates, made primarily from unfortified wheat flour, rice and potatoes, which do not provide sufficient calories or micronutrients. Inadequate amounts of animal or vegetable protein are eaten, especially by women and children. Families consume even fewer and less-nutritious meals during the "lean season" from mid-February to mid-May. Only a quarter of infants are exclusively breastfed until they reach 6 months of age, and infants and young children are not provided with adequate complementary foods during weaning and are often fed primarily bread and tea with sugar. Women and children drink excessive amounts of tea during meals, which further impedes absorption of the little iron they do consume. Table salt for the most part contains inadequate amounts of iodine. Common cultural practices also exacerbate malnutrition. For example, men and older boys typically eat first, and then women and younger children eat, often leaving the women and children too little.

[41] Source: UNICEF Micronutrient Status Survey in Tajikistan, 2009.

[42] von Grebmer, et al., *2011 Global Hunger Index,* p. 36.

A high infectious disease burden exacerbates malnutrition in Tajikistan. Endemic infectious disease persists, even for some vaccine-preventable diseases against which immunity levels continue to be low. Malnutrition not only weakens immunity to infection, and increases the severity of disease, but increases a child's risk of dying from diseases such as diarrhea, measles and acute respiratory illness. Parasitic worms and infections cause intestinal bleeding and are associated with diarrhea, further increasing the risk of anemia. Finally, in endemic areas, diseases such as malaria also significantly contribute to anemia.

Limited access to clean drinking water and sanitation facilities compounds the effects of poor nutrition. Polluted irrigation water often substitutes for potable water for village household use. A recent study by the State Unified Enterprise "Communal Services" supported by USG and Swiss Development Cooperation reported that that 57 percent of the population does not have access to clean drinking water. There is a high incidence of waterborne diseases in many communities, especially when the only supply of water is from irrigation ditches. Knowledge of good hygiene practices is also low, further contributing to diarrheal disease and undernutrition.

Tajikistan's health care sector faces huge challenges as a result of chronic under-financing, poorly maintained infrastructure and major gaps in human resources, especially in rural areas. Public services and utilities are almost entirely lacking in the countryside. Under Soviet rule the collective and state farms built and subsidized health and educational facilities, secondary and tertiary roads and utilities, as well as social facilities such as stores and community centers. Since 1991 almost all of those facilities in rural areas have fallen into extreme disrepair.

In 2009, the level of total health spending as a percent of GDP was 1.9 percent, which is significantly less than the 4.5 percent spent in 1991. Donors are working with the GOTJ to increase the level of health spending. However, it will take years of increased spending to fully address the problems that have accumulated over the last two decades.

There are marked geographical imbalances in health care resources and financing, favoring the capital and regional centers over rural areas. There are also significant inequities in health care expenditures across regions. Tajikistan's health indicators reflect the problems in the health sector with some of the lowest levels of life expectancy, highest rates of maternal, infant and child mortality, and fastest growing rates of tuberculosis and HIV/AIDS in Central Asia.

1.9. CROSS CUTTING ISSUES

Regional Trade

Since it is not economically feasible for Tajikistan to be self-sufficient in basic food commodities, it must import and should pursue its comparative advantage in trade to pay for the imports. Its principal grain suppliers are Kazakhstan and the Russian Federation. The major transportation links run through Uzbekistan, which has repeatedly slowed or blocked movement of cargoes for Tajikistan as a way of pressuring the Tajik government. Tajikistan is seeking alternative transport routes and to improve its own internal communications, but those solutions will take years. Thus, Tajikistan needs to be certain that it can obtain the foodstuffs it needs when it needs them and that delivery will be unimpeded. In order to reduce the likelihood of embargoes, shipping delays, and other trade barriers, regional issues, such as trade bloc memberships and trans-boundary water disputes with Uzbekistan, must be addressed.

Donor activities, such as the multilateral Central Asian Regional Economic Cooperation Program are making some progress on these issues. The U.S. Government supports efforts to increase the economic integration of the Central Asian countries.

The country's leadership is highly focused on accession to the World Trade Organization (WTO), and they have also occasionally expressed interest in exploring membership in the Russian Federation-led Customs Union. Through Tajikistan's intensive efforts, accelerating over the last year, its WTO membership negotiations are well advanced. As part of that process, it must bring its technical regulations, food safety, animal and plant health standards and systems into accord with those required in the Sanitary and Phytosanitary Treaty and related WTO documents. These will be lengthy and labor-intensive efforts but they will make it possible for Tajikistan to expand its international trade and, perhaps more importantly, will improve its business environment in the process.

Afghanistan

Afghanistan and Tajikistan border one another for about 800 miles along the Panj and Amu Darya rivers. More ethnic Tajiks live on the territory of modern Afghanistan than live in Tajikistan, and historically the Panj has often been the center of a political entity rather than a border between independent states. During the Afghan conflicts and Tajik civil war, fighters and refugees frequently sought sanctuary on the other side of the river. Much of the narcotics trade from Afghanistan flows across the Tajik border.

Tajikistan's southern Khatlon Province and the neighboring Darvoz district of the Gorno-Badakhshan Autonomous Province, which border Afghanistan, are among the poorest and most food insecure areas of Tajikistan. Darvoz ("gateway") provides a path from Afghanistan to Tajikistan's Rasht Valley that was frequently used by insurgents during Tajikistan's civil war. Peace in Afghanistan cannot be secured without stabilizing the neighboring southern regions of Tajikistan. Greater food security through increased economic opportunity in agriculture for residents of Khatlon is one of the most important potential guarantors of continued peace in Tajikistan.

Climate Change

Tajikistan is extremely vulnerable to climate change. Successful implementation of the FTF/T initiative will require steps to improve the agro-ecology of the country and build the climate resiliency of its people.

Tajikistan is already experiencing the effects of climate change.[43] Annual average temperatures have risen by 0.8 degrees Celsius since 1940, and are expected to rise further. Droughts are predicted to become both more frequent and more intense, especially in Khatlon Province. River flows are expected to rise in the near term and then sharply drop as a result of melting glaciers. Outbreaks of water-borne diseases and malaria are expected to increase.

Local Government

Local governments lack resources and, often, trained personnel. The U.S. Government recently completed a long-term effort to reform local government at the village level through supporting a new Law on Local Self-Government. The law addresses many of the issues that resulted from the dissolution of the collective and state farms, including the need to maintain social infrastructure such as schools and hospitals, the civil affairs registry, and the role of the local government in economic development. It also provides for greater transparency and community participation.

USAID is now pursuing further efforts to develop effective, transparent and responsive local government agencies in Tajikistan, for instance by advancing budgetary and fiscal decentralization to give

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[43] All statistics in this paragraph come from chapter 5 of Tajikistan's Second National Communication to the UN Framework Convention on Climate Change, 2008.

local governments assured funding through the acquisition of specific powers to raise revenue and determine expenditures.

2. STRATEGIC ASSUMPTIONS

The FTF/T strategy leverages all available resources to improve the food security of one of the poorest regions of Tajikistan, Khatlon Province. To achieve that goal requires substantially advancing the ongoing agrarian reform and, given the country's limited arable land, increasing high-value production by smallholders for consumption and to generate additional income to support household purchase of basic foodstuffs. Implementation relies on developing public and private agriculture extension to reach villages, commercial farmers, and household farms. Long-term success will be assisted and institutionalized by national-level policy interventions. Overall, FTF/T is designed to assist the government in strengthening the resilience of its people to natural and humanitarian disasters, based on the assumptions outlined in this section.

2.1. FOOD IMPORTS UNAVOIDABLE

As discussed previously, achieving self-sufficiency in grain in Tajikistan would be nearly impossible and is certainly not an optimal use of the country's resources. Given current grain yields, the country has barely enough arable land to achieve food grain self-sufficiency if it all was planted to grain. But devoting all available arable land to grain—or even sowing enough arable land to grain to achieve the 80 percent of self-sufficiency target set in the Law on Food Security—would not make economic or agronomic sense.

Given Tajikistan's situation, most households will always have to purchase substantial amounts of food. This means that incomes must be higher for those now unable to purchase what they should have, and that the income for all must be secure. Since women are more likely to be concerned that income is spent on better nutrition, empowering women in Tajikistan will help ensure that adequate amounts are spent on food. Moreover, since more income by itself does not guarantee better dietary behaviors even when women have decision-making power, nutrition education and social and behavior change communications programs must reach all adults in the household to teach and reinforce the importance of good nutrition and household management.

2.2. CROP DIVERSIFICATION IN TRADITIONAL COTTON GROWING AREAS

As in many countries where economic and historical forces have created a monoculture, the needs of a modern economy, broad-based economic growth, and food security require economic liberalization and crop diversification in Tajikistan, moving away from excessive dependence on cotton. The historical development of large-scale cotton cultivation in Tajikistan is specific to Russian and Soviet history. Furthermore, given its infrastructure endowment and market linkages, it is not surprising that cotton has continued as a dominant crop in the post-Soviet era. Nonetheless, there are high-value crops which, in comparison with cotton, offer higher economic returns and are more suitable for cultivation by poor rural families. One of the keys to ending poverty in Tajikistan is providing the production knowhow, access to land, and access to markets that will allow rural households to engage in the production of these high-value crops.

It is not the purpose of FTF/T to necessarily decrease the amount of cotton production. Indeed, the opposite is true, providing alternative crops, which compete with cotton for land, will provide the necessary incentive for cotton producers to respond to the need for productivity-enhancing

investments. That can only be done by finally completing in practice the agrarian reform that has formally been underway since 1991.

2.3. COUNTRY TAKES LEADERSHIP

The Paris Principles and subsequent international declarations emphasize that the recipient country must own and take leadership in design and management of its economic strategy and the assistance it receives. Tajikistan's governmental institutions are nascent and decision-making is centralized. The sheer number of issues can sometimes overwhelm policy-makers who have a very different conceptual background than most members of the international community. Nevertheless, the GOTJ has moved to establish a legal and policy framework for improving food security.[44]

The GOTJ's food security strategy is reflected in the Agrarian Policy Concept and Food Security and Agriculture Investment Plan prepared as a part of the National Development Strategy 2006-2015 and Poverty Reduction Strategy for the period 2010-2012, and enshrined in the National Food Security Strategy of 2008 and the Law on Food Security in 2010. These documents, developed with extensive stakeholder consultation, establish agricultural productivity and output growth targets and define priorities, which include a focus on ensuring food security, redefining the State's role in agriculture, and promoting the development of Tajikistan's agricultural industry. In May 2011 the government established a cabinet-level coordinating Council on Food Security including all the major government agencies involved in the agriculture and food sectors. These efforts are also coordinated with Tajikistan's efforts to fulfill the Millennium Development Goals. While these documents contain some weaknesses, such as unrealistic expectations to achieve food self-sufficiency, together they establish a framework for reform, which is steadily gathering speed.

The GOTJ structured these strategies into an Agricultural Investment Plan, which was presented as part of its grant application to the Global Agricultural Food Security Food Program (GAFSP) in 2010.

Fortunately, steady progress is being made in this regard. The GOTJ has joined with the donor community to create mechanisms to develop and carry out a well-designed and coherent agrarian reform encompassing water management, land tenure, rural development, food security and the economics of agriculture.[45] The basic building blocks of that reform are in place, as is the desire by the Government to diversify the agriculture sector.

The Deputy Prime Minister for Agriculture has devoted a great deal of his time to the design and initial implementation of agrarian reform in the past two years, organizing working groups that engage government officials in drafting land reform legislation, water sector reform, defining the proper role of local government in agriculture, and other aspects of agriculture sector reform. The Deputy Prime Minister, Minister of Water Resources and Land Reclamation, Minister of Agriculture, other senior officials, and the working groups continue to meet regularly with donors, and the GOTJ has been extraordinarily open to advice about the reform's implementation. A significant milestone in this process will be the development of an updated Agriculture Investment Plan to reflect emerging priorities and available funding. FTF/T and the donor community at large are aligned in support of these efforts.

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[44] Deputy Prime Minister of the Republic of Tajikistan Murodali Alimardon, "The agricultural reform process in the Republic of Tajikistan," PowerPoint presentation (October 22, 2009). The development of the reform strategy was capped with an international conference in Dushanbe in April 2011 that resulted in the "Consolidated document: Agriculture Reform Program of [the] Republic of Tajikistan" (August 17, 2011).

[45] Nino Khatsuriani, M.D., PhD Serosurvey for Vaccine-Preventable Diseases in Tajikistan, 2010, presented in Dushanbe, Tajikistan 2011."

However, the Government's commitment is not without reservation. Senior officials express grave concern about the need to maintain employment in the countryside, and see the cotton system as providing jobs. They wonder what can replace cotton monoculture as an export revenue generator for the country. Moving the reform further requires a convincing answer to the question of what can replace large-scale cotton cultivation. Successful agricultural and rural development based on non-cotton crops that improve food security, incomes and gender equality in a poor cotton region will demonstrate to the GOTJ an alternative future for agricultural development that it can implement across Tajikistan.

2.4. CONCENTRATE IN KHATLON PROVINCE

Tajikistan is a relatively small country, but to ensure that the strategy will be adequately supported, the resources available should not be scattered. In the past, donor assistance, especially that provided by bilateral donors including USG, has been widely distributed throughout the country. Although this wide footprint made political, and perhaps, humanitarian sense, ensuring that all parts of a very poor country got some benefit, it greatly complicates and increases the costs of aid, makes it more difficult to articulate lessons learned and to apply that experience to other areas and projects, and often means that no area receives enough assistance for whatever change has been supported to become self-sustaining. The FTF/T strategy breaks with this tradition and purposely concentrates in one province.

FTF/T implementation will focus on selected cotton-growing districts of Khatlon Province. Those districts are expected to include Qabodiyon, Qumsangir, Vakhsh, N. Khisrav, Jilikul, Bokhtar, Khuroson, Jomi, Yovon, J. Rumi, and, Sarband as the primary areas of focus.

Khatlon is Tajikistan's major cotton, wheat and fruit-and-vegetable producing area (Table 4).

Table 4. Agricultural Significance of Provinces of Tajikistan by Various Indicators, 2009[46]

	Khatlon	Sughd	DRD	GBAO	Tajikistan
Gross Agriculture Output	45%	25%	26%	4%	100%
Agricultural land area	33%	24%	26%	17%	100%
Cropped area	49%	32%	18%	1%	100%
Cattle	40%	27%	26%	7%	100%
Sheep / Goats	39%	31%	21%	8%	100%

The population of Tajikistan is concentrated in the lowland areas of Khatlon and Sughd Provinces. Population density is highest in Khatlon (Table 5).

Table 5. Population and Population Density by Province, 2010[47]

	Number	persons per square kilometer
Khatlon	2,693,900	109.5
Sughd	2,251,700	88.7
Direct-rule Districts	1,734,000	60.6
Dushanbe city	730,500	-

[46] Source: Ministry of Agriculture of the Republic of Tajikistan, UN FAO and UN WFP, *Crop and Food Security Assessment Mission Report: Tajikistan, 2011* (Dushanbe: September 2011), p. 10. http://www.untj.org/files/library/Crop_and_Food_Security_Assessment_Mission_Report-Tajikistan_2011.pdf

[47] Source: *Регионы республики Таджикистан, 2011 [The regions of Tajikistan, 2011]* (Dushanbe: Presidential Agency on Statistics, 2011) pp. 16-17, 21-22.

GBAO	206,300	3.2
All Tajikistan	7,616,400	53.4

More than 50 percent of the population in Khatlon is poor (Table 6). Because of Khatlon's large population, there is a greater absolute number of people in poverty there than in any other province of Tajikistan.

Table 6. Poverty Rates by Province, 2009[48]

	Khatlon	Sughd	DRD	Dushanbe city	GBAO	All Tajikistan
Relative poverty	33%	31%	27%	20%	36%	30%
Extreme poverty	21%	17%	12%	14%	26%	17%
Total poverty	54%	48%	39%	34%	62%	47%

Residents of Khatlon spend more than two-thirds of their household cash income on food. Only residents of GBAO spend proportionately more (Table 7).

Table 7. Expenditures on Food as a Percent of Total Household Expenditures, January-June 2010 and January-June 2011[49]

	January-June 2011
All urban	61.9%
All rural	60.7%
Khatlon Province	67.9%
Sughd Province	47.6%
Direct-rule Districts	66.1%
Dushanbe city	62.1%
GBAO	72.1%
Tajikistan	61.2%

The most likely reason Khatlon residents spend so high a proportion of their income on food—in the country's most important agricultural region—is that they are occupied in cotton cultivation, and so lack the time to spend on their household farms producing food for themselves or for sale. Since they tend to purchase the cheapest food available, bread, this dependence on purchased foodstuffs probably hurts nutrition and reduces dietary diversity. Since cotton farms do not pay their laborers very much and generally settle up only after the harvest is sold, cotton farm workers are perhaps even more vulnerable to seasonal food shortages and malnutrition than rural households that concentrate all their efforts on household farm production.

Khatlon has the highest rates of malnutrition in Tajikistan. The inadequacy of household nutrition in Khatlon is reflected in the results of the 2009 UNICEF Micronutrient Status Survey (MNSS) in Tajikistan (Table 8). Anthropometric assessments were carried out nationally. Khatlon was found to have the highest prevalence of children under age 5 with low height-for-age (stunting, 37 percent), low weight-for-age (underweight, 10 percent), and low weight-for-height (wasting, 5 percent). These reports are consistent with the findings of the 2005 UNICEF Multi-Indicator Cluster Survey (MICS) that Khatlon had

[48] Source: As for Table 1.

[49] Source: *Продовольственная безопасность и бедность [Food security and poverty],* number 2 (Dushanbe: Presidential Agency on Statistics, 2011), table 10, p. 105.

the highest under-5 mortality rate and infant mortality rate in Tajikistan, 102 and 81 deaths per 1,000, respectively.[50]

Nearly three-quarters of children in Khatlon showed iodine deficiency, far greater than the national average of 53 percent. Khatlon also had the highest proportion of women of reproductive age who were severely anemic, underweight and iodine insufficient. Nearly 6 in 10 women in Khatlon are iodine deficient.

Having a long border with Afghanistan, Khatlon is at risk from developments in the war and cross-border movements of violent extremists. Concentrating assistance efforts in Khatlon helps reinforce Tajikistan's long-term border security. Moreover, a more prosperous Khatlon could have positive spillovers promoting development in neighboring regions in northern Afghanistan. Khatlon is the natural corridor linking Afghanistan with the population centers of western Tajikistan, Kyrgyzstan to the north, and China to the east. Providing assistance to increase agricultural production and economic activity in Khatlon could enable this critical region to contribute to the "New Silk Road" proposal to make Afghanistan once again a transportation hub for Eurasia, promoting development along important trade routes across the region.

The GOTJ has committed to changing its system of water resources management from an administration district approach to a basin level approach. The first river basins in Tajikistan to make the transition are located in western Khatlon. The process is being supported primarily by the European Union and the World Bank. Working in Khatlon will allow FTF/T to leverage this investment by other donors on an issue of critical importance to agricultural development and to assist it by continuing to support the creation of water users' associations.

2.5. LEVERAGE CURRENT U.S. GOVERNMENT PROGRAMS AND DONOR COLLABORATION

The donor community in Tajikistan is very cohesive, organized in a Development Coordination Council (DCC) that works collaboratively with the GOTJ to jointly define development priorities, track progress, advocate policy changes, and respond to requests for assistance. Under the DCC, there are donor/government working groups on the full range of development issues. The U.S. Government co-chairs the agriculture/land and health working groups, with exceptional opportunities to raise policy issues to senior levels of government and convene donors to exploit opportunities for synergy and leveraging resources.

Activities in Khatlon

The U.S. Government is already actively engaged in activities related to food security in Khatlon Province. USAID Tajikistan's current portfolio emphasizes food security and its three major agricultural programs are active in Khatlon Province: the Family Farming Program, the Productive Agriculture Project, and the Land Reform Project. The USAID Family Farming Program works with civil society organizations and private extension service providers to help household farms and small commercial farms to improve their productivity, income and nutrition awareness. It also builds on nearly a decade of USAID's work supporting irrigation infrastructure and the development of community-based water users' associations in the province. The USAID Productive Agriculture Project works with small and medium commercial farmers to develop value chains, including development of input suppliers and processors/wholesalers to assist target farms, while also assisting in the development agricultural finance

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[50] *Dehkan Farms Inside/Out: A Comparative Assessment of Cotton Growing Dehkan Farm Models in Sughd, Tajikistan: Agro Socio Economic Survey & Baseline Report* (Dushanbe: CECI Farms Project, November 2006).

for small commercial farmers and small and medium agriculture-related businesses. The USAID Land Reform Project provides technical assistance for legislative drafting and land policy improvement while supporting legal assistance centers which conduct land use rights education and public awareness campaigns. In addition, the USAID Tajikistan Safe Drinking Water Project constructs drinking water systems in rural communities, builds their capacity for sustainable management, and promotes behavior change on good health and hygiene practices. In previous years, USAID Food for Peace funding has supported targeted food insecure communities in Khatlon Province with food deliveries and training in food storage and preservation and other coping strategies.

The U.S. Department of Defense (DoD) provided funding to USAID to implement the Tajikistan Stability Enhancement Program (TSEP), in order to strengthen communities in regions most at risk of conflict. TSEP, implemented by Mercy Corps, has worked extensively on agriculture, irrigation, drinking water, and other community infrastructure projects in some districts in Khatlon, including some of those identified for the FTF/T intervention. DoD funding also supports the State Department's International Narcotics and Law Enforcement Division's efforts on community policing, to reinforce security and a conducive environment for development in the same districts. Additionally, DoD is funding a nationwide deworming program (including Khatlon Province), which is an important measure to help reduce the high rates of anemia. DoD has expressed interest in purchasing Tajik fruits and vegetables as locally sourced supplies for its presence in Afghanistan.

FTF/T implementation will closely cooperate with donor activities in Khatlon, especially those that are investing heavily in farm restructuring and irrigation rehabilitation.

The United Nations Development Program (UNDP) has managed a series of community development programs throughout much of Tajikistan since 1996. The UNDP has local offices, with local employees who know the area. The UNDP Communities Program (2010-2012), implemented with funding from UKAID (DFID), operates throughout Khatlon. The program focuses on supporting the work of the local administrations and community development. Initial conversations have been held with UNDP about resource sharing at the district and community level.

The International Fund for Agricultural Development (IFAD), a United Nations agency, has two projects in Khatlon. The "Khatlon Livelihoods Support and Land Management Project" is operating in Dangara, Temurmalik, Baljuvan, Muminobod and Shurobod districts for 2009-2015. The "Livestock and Pasture Development Project," scheduled to operate 2011-2017, will work in Shartuz, Qabodien, Rumi, Farkhor, Vakhsh and Panj districts.

On June 9, 2011, Tajikistan was awarded funding under the World Bank-managed GAFSP to rehabilitate irrigation infrastructure in Khatlon Province. Initial discussions have already been held with the World Bank country office, which administers GAFSP in Tajikistan, on how to ensure that USG technical assistance leverages the GAFSP funding.

In 2010 the World Bank, in partnership with UNICEF and the World Food Program (WFP), began a pilot nutrition improvement effort in Khatlon with financing from the government of Japan. The five-year project (ending November 2014) is implemented by the Ministry of Health and is already operational in 10 districts of Khatlon, with plans to scale up to an additional 5-8 districts in the near future. The project aims to reduce the exposure of the poor to food insecurity and improve the long-term health and well being of infants and young children through activities in: (i) community-based nutrition monitoring; (ii) community training on management of childhood illnesses; (iii) educational messages to promote behavioral change; (iv) distribution of micronutrient supplements; and (v) monitoring and evaluation. FTF/T implementers will coordinate closely with this effort in order to avoid duplication of interventions and best leverage existing resources.

Since 2005 the World Bank has carried out a Land Registration and Cadastre System Program throughout much of Tajikistan, including many districts of Khatlon. The Bank is extending that effort for three years past its current closing date of 2012. There is a 20-year history of World Bank cooperation with the USG in land reform in countries of the former Soviet Union, cooperation that is most fruitful when USG technical assistance works closely with Bank-funded efforts to ensure that beneficiaries of land reform receive not only a title and proof of registration of their rights to their plot, but also broad-gauged assistance in setting up and managing an independent commercial or subsistence farm. FTF/T implementers will cooperate with the Bank in that way.

The Asian Development Bank (ADB) is not presently making large new investments in food security or agriculture. Its current Rural Development Program has been working on pasture management issues, including the establishment of Pasture Users' Groups. Although the ADB's project works primarily around Dushanbe, not in Khatlon, that experience may be useful in FTF/T work with particular communities in Khatlon. The ADB has also joined with the European Bank for Reconstruction and Development (EBRD) and the World Bank in the Pilot Program for Climate Resilience in Tajikistan, which includes a large component to develop livelihoods in Khatlon.

Many international non-governmental organizations (NGOs) are present in various villages and districts in Khatlon. The FTF/T interventions will seek to backstop and reinforce their efforts, helping them move from crisis relief to longer-term development efforts as all sides find appropriate.

Many donor agencies have carried out village-level development projects in Khatlon and continue to do so. The FTF/T will also build on and support those activities wherever they exist. FTF/T plans to build consensus among donors around a common approach for achieving desired goals in Khatlon, leveraging the combined efforts of these activities to maximize impact.

Policy and Monitoring

In alignment with GOTJ priorities, an agenda for reform in agriculture has been defined jointly with donors in the Development Forum Action Plan, approved by the President of Tajikistan, and progress is reviewed regularly in government-donor meetings. On a monthly basis, the Deputy Prime Minister meets with the Development Coordination Council and key ministers and other counterparts to track progress, resolve disputes, call government officials to account, and solicit specific assistance.

The United Nations Food and Agriculture Organization have supported small policy-related efforts in the Ministries of Agriculture and Water. It also has funding to support a three-person agrarian reform secretariat that handles administrative duties and coordinates activities between the office of Deputy Prime Minister for Agriculture of the Republic of Tajikistan and the DCC. The World Bank Cotton Sector Restructuring Project is providing support for a small national-level policy analysis unit.

Through the DCC, all the bilateral and multilateral donor agencies and international financial institutions present in Tajikistan have supported the development of the agrarian reform strategy for land, water, food security and profitable agriculture.

The World Food Program, in addition to food-for-work and related community-level programs, operates a Food Security Monitoring System that issues periodic reports on food security in Tajikistan.

With the U.S. Government, the World Health Organization and UNICEF have supported reform of the health care sector. WHO is supporting the development of a national nutrition strategy to complement existing strategies for health care improvement and agrarian reform. The World Bank supports a small policy-planning unit in the Ministry of Health with which FTF policy efforts will also coordinate.

3. PILLAR 1: ASSISTANCE TO HOUSEHOLD AND SMALL COMMERCIAL FARMS

Tajikistan's household plots and small commercial farms produce most of the agricultural sector's output by value. Yet they are far from achieving their potential for increasing income or production. Most citizens of Tajikistan are dependent on these holdings for their livelihood. So the key task in improving food security and reducing poverty is to help household plots and small commercial farms to prosper. Prosperity entails increased income, more and better production for home consumption and, when linked with nutrition education, social and behavior change communications and women's empowerment interventions, can lead to greater knowledge and practice of good nutrition and health behaviors.

3.1. INCREASE INCOMES

The major agricultural value chains in Tajikistan are cotton, wheat, fruits and vegetables, potatoes, milk and meat. Cotton and wheat are grown in rotation on the large, essentially unreformed irrigated commercial farms. As already noted household farms also produce a substantial quantity of wheat. Vegetables and potatoes come largely from household farms. Potatoes are generally produced for sale and subsistence in highland areas where cotton and wheat are not grown, such as the Rasht valley, so potatoes tend to be a regional specialization. Most Tajik livestock is held by households, but much marketed meat comes from a few large farms and much marketed milk from imported milk powder.

Some of these value chains are pursued by farmers mainly for household consumption (subsistence) while others are more oriented to market sale for cash income.

Analyses of major value chains were done at the inception of the USAID Productive Agriculture Project in 2010 and again as part of the development of this strategy. The more recent analysis suggested convincing reasons why potatoes, wheat, milk, meat and cotton would not be appropriate value chains for Tajik smallholder farmers to concentrate on in order to increase their monetary incomes. These value chains, which were not selected, are shown in Box 1, below.

Box 1: Summary of Non-selected Value Chains

Potatoes	Widely produced, especially in areas unsuitable for cotton or wheat, but low value • Can be easily transported and sold domestically • Yield is approximately the same as in other Central Asian countries • Smallholders consume, but consumption will not address root causes of malnutrition
Wheat	Basic food crop in high demand, but difficult to grow economically on small plots • Margins are lower than nearly all other value chains • Kazakhstan has comparative advantage in production costs • Kazakh wheat is higher quality and preferred for milling
Milk	Almost all households have a few livestock, but product consolidation and quality control very difficult • Yield gap compared to Uzbekistan and Kazakhstan is over 100 percent • Inadequate pasture and fodder make yield improvement very difficult • No cold chain (uncertain electrical supply in rural areas)
Meat	Potentially highly profitable and source of protein, but same major constraints exist as for

	milk
Cotton	Basic crop on most commercial farms, favored by government policy, but most cotton farms and especially cotton farm laborers receive little benefit from it • Women work only as laborers • Improving large-scale commercial cotton production is already the focus of GIZ, ADB, WB and EBRD TAFF

Because of the limited overall amount of arable land and the large amount of labor available, Tajik smallholders should pursue intensive, high-value crops to increase their income. Although the data are limited, it is clear, as the summary in Box 2 shows, that fresh fruits and vegetable value chains are the best available option for this purpose.

Box 2: Summary of Reasons for the Prioritization of Fruits and Vegetables

Reach	High familiarity, ubiquitous in household farms (where women have greater control) and prevalent on commercial farms
Income potential	Among the most profitable value chains in Tajikistan
Growth potential	Enormous Russian export opportunities, long-term growth potential with China, Middle East and Europe
Nutritional value	Some fruits and vegetables are highly nutrient dense
Impact on women	Women already play significant role in farming and marketing; potential for greater involvement in decision-making and benefits
Relevance	Appropriate for both household and commercial farms

Fruits and vegetables are overwhelmingly produced by household farms (Table 9). The land reform has created smaller commercial farms to succeed the Soviet collective farms, which may be anything from 0.1 hectare to hundreds of hectares in size. National data on farm sizes or the specialization of commercial farms of different sizes are not available. However, there is reason to believe that the smaller commercial farms, those established by more complete land reform, are responsible for much of the vegetable production attributed to all *dehkan* farms.

Table 9. Vegetable Production in Khatlon Province and Tajikistan by Type of Farm, 2009[51]

	Khatlon Province		Tajikistan	
	Tons	Percent	Tons	Percent
Agricultural enterprises (state-owned farms)	28,890	6%	78,669	8%
Dehkan farms (commercial farms of all sizes created by land reform)	117,118	25%	293,368	28%

[51] Source: *Регионы республики Таджикистан* (Dushanbe: Presidential Agency on Statistics, 2010), p. 114.

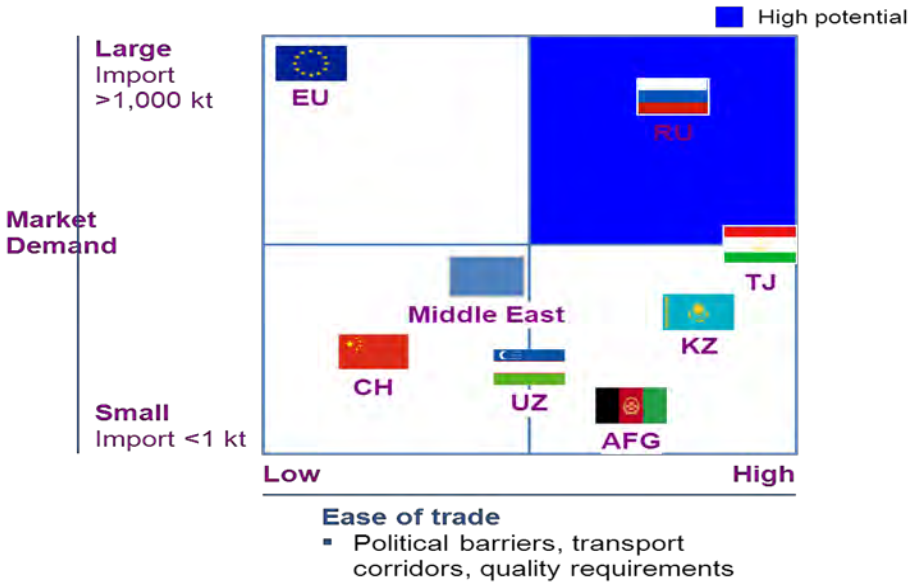
Household farms	315,906	68%	674,822	64%
All farms	461,914	100%	1,046,859	100%

The GOTJ supports development of this value chain for domestic sale and export. The Government devoted special funding to a sectoral program for fruits and vegetables in 2005-2010.[52]

The growth in remittances is driving an increase in domestic market demand for food products, including higher-value added items such as fresh fruits and vegetables. This growth in effective demand is an opportunity for Tajik producers to sell more and at better prices.

Export markets, particularly in the Russian Federation, have become more attractive as Russian disposable incomes have grown in the past decade. Because of its southerly location, Tajikistan can, given good transportation links, beat nearby competitors to market with early-season produce. Moreover, the Russian market is so large relative to potential Tajik production that Tajik production cannot glut the market there. There is also short-term demand from Afghanistan and Kazakhstan, and, in the longer run, there may be significant demand for some Tajik products in Pakistan, China and even Uzbekistan and the Middle East (Figure 1).

Figure 1: Potential to Absorb Increase in Tajikistan's Fruit and Vegetable Production



The easiest fruit and vegetable value chain to develop in Tajikistan is almost certainly onions, so it should be the first focus. Onions can be easily transported and stored without refrigeration, they are relatively high-value, and Tajikistan can sell fresh onions into the Russian market before competitors' products are ready for sale. Importantly, this is a value chain which is currently growing. Official information on export volumes is not available. Nonetheless, USAID's value-chain development project, which has been

[52] Tanzila Ergasheva (Department head, Institute of Agrarian Economics of the Academy of Agricultural Sciences of the Republic of Tajikistan), "Institutional and Strategic Conditions for Agricultural Development and Food Security in Tajikistan," PowerPoint presentation (October 14, 2011).

under implementation for two years, is working closely with producers and exporters and is reporting steady expansion in this market.

Once the marketing chain is better organized, households will want, and can be helped, to increase production of other fruits and vegetables for sale through the same channels. For example, fueled by strong economic growth over the past several years, domestic demand for fresh fruits and vegetables is also on the rise. Though no single value chain is particularly high in volume, local markets for crops such as off-season cucumbers and tomatoes, stone and pome fruits, cabbage, early potatoes and table grapes collectively constitute a significant market for FTF/T's target small-plot farmers.

Other export value chains also hold promise. For example, carrots and early potatoes share important characteristics with onions of being high value, not requiring refrigerated transportation, and having an early-season production window, which is attractive to Russian importers. FTF/T will undertake value-chain analyses to evaluate market potential, identify constraints for these products and test interventions to address those constraints. Gender value chain analysis will be conducted to ensure an appropriate approach is implemented to deal with the different opportunities and challenges facing men and women for each value chain.

The path to export markets is made more feasible by the large size of the market for lower-quality produce in Russian and Kazakhstan. For example, Hazard Analysis and Critical Control Points (HACCP), International Organization for Standardization (ISO) and traceability certifications are not yet required in these countries. In addition, most Tajik exporters are sending their produce abroad to fellow countrymen with whom they have a personal relationship. Because of this relationship, exporters can be assured that their products will find a buyer in the less-organized markets where lower-quality produce is usually traded. These have proven to be important factors in the development of export value chains which now exist.

Capitalizing on these advantages will generate the capital with which Tajik producers all along the value chain can invest in quality improvement. With such improvements they will capture quality premiums in traditional markets as well as reduce marketing risk by diversifying into new markets in other parts of Asia. Improving quality and meeting higher standards is the purpose of value chain and extension intervention discussed in the following section. In addition, the initiative will work with input-supply and produce-marketing value chain actors to provide technical assistance and demonstrations for quality enhancement and to organize industry associations to address comment concerns.

Arguing for concentration on the horticulture value chain to increase farm incomes is not to say that household and small commercial farmers should produce only fruits and vegetables. Farmers' production and incomes can be raised within existing constraints because these products can be grown intensively on little land. However, over time their success will increase demand for reallocation of the resources still locked up in large, unprofitable farms. The development of farming and management skills for one crop will facilitate the success of other value chains and products for household consumption.

3.2. IMPROVE AND INCREASE PRODUCTION FOR HOUSEHOLD CONSUMPTION

Growing fruits and vegetables for home consumption is the norm for rural families in Khatlon Province, as is keeping ruminant animals, typically 1-5 head of cattle. Increased incomes resulting from more crops sold to the market will change these phenomena only marginally because of tradition and a basic preference for homegrown food. FTF/T will capitalize on this by improving the quantity and quality of home-produced food to benefit family diets, particularly those of women and children.

Regarding fruits and vegetables, farmers will naturally apply the production practices learned on commercial crops to those grown for home use, allowing the maintenance of this practice while using

less precious garden space. Also, building awareness of the need to select a diversity of more nutritious crops for home consumption, delivered as part of the household nutrition education and behavior change interventions, will further enhance the contribution of homegrown food to more nutritious family diets.

Improving livestock productivity will increase the availability of protein-rich meat and dairy products for home consumption. Readily attainable gains will come through the promotion of basic animal health by agricultural extensions advisers. Improved livestock feeding is equally important, but more challenging because pastureland is scarce and families are reluctant to switch from wheat fodder production.

Although households now grow a great deal of Tajikistan's wheat crop, there is little economic justification for that practice. Most of what households grow is low quality, but if the season is a particularly bad one, homegrown wheat can be milled and mixed with purchased flour. If things are not quite that tough, then it is a useful fodder for the family livestock.

If incomes can be raised, then that kind of insurance should no longer be so necessary. Households could then devote the effort they now give to poor-quality wheat to other fodder crops, including, where water supplies permit, alfalfa and soy. Most household animals eat poorly, being fed whatever they can graze with the village herd and poor quality hay that the owners collect from waste land, since pasture land is insufficient, overgrazed and often a subject of contention. Households are not going to give up their animals, since they are both stored wealth and a source of milk and occasional meat.

Therefore, if household incomes can be raised and made more secure, it should be possible to convince household to change their crop mix away from poor quality wheat to fodder crops that will be more nutritious for their livestock, such as alfalfa and soy. Soy can be used to improve human health as well, and may serve as an alternative to milk consumption. Better animal feed will translate quickly into increased yields of milk for household consumption. As household incomes rise, they will also be willing to spend the minimum needed to take care of their animals. FTF implementers will also cooperate with professional veterinary service providers in Tajikistan to help households take better care of their stock. This will improve animal health and, by reducing human exposure to diseases that can be transmitted from animals to humans, human health as well.

3.3. IMPROVE NUTRITION AND HEALTH

Globally and in Tajikistan, malnutrition and poverty are closely intertwined. Patterns of food consumption are determined not only by income levels but by availability, access and household utilization of food. Accordingly, improving food security and nutritional behaviors will require an integrated approach that addresses not only availability and access but also improved utilization of food at the household level. When families have slightly more disposable income so that choices become more possible, nutrition education and women's empowerment can help improve household level food behaviors. However, food-based interventions will not on their own improve maternal and child health and nutrition. Rather, to achieve improvements in maternal and child nutrition, it is essential to address both the immediate and underlying causes of undernutrition by improving access to high impact nutrition, maternal and child health and family planning interventions, and integrating nutrition interventions into maternal and child health activities at the household, community and health facility levels.

FTF/T will focus on the delivery of a set of proven public health interventions to address nutritional deficiencies, improve feeding and dietary practices, and support essential health care needs of women and children, focusing on pregnant women and children up to age 2. Activities will target the immediate causes of malnutrition by undertaking household, community and facility-based activities to promote good nutritional practices including exclusive breastfeeding for up to 6 months, increase intake of

vitamins and minerals, and promote complementary and supplementary feeding, as well as prevention and treatment of acute undernutrition. Building on and complementing FTF/T's efforts to improve household economics, gardening, food preservation, and livestock management to enhance food availability throughout the year, focus will be given to improving nutrition-related knowledge and practices in relation to the "1,000 day window" of pregnancy through the first two years of life. In addition, activities will improve longer term maternal and child nutrition by promoting access to essential maternal and child health and family planning interventions to reduce the impact of infectious diseases and the demands of pregnancy and lactation on both mothers and children.

In parallel with household food-based activities, FTF/T will support nutrition education interventions targeting families of children under 5 years of age. Focus will be given to educating the wide range of individuals who influence decisions regarding childcare and feeding, including mothers, grandmothers, mothers-in-law, husbands, and religious/community leaders as well as health providers. These programs will educate families on:

- Improved feeding practices: breastfeeding, complementary feeding and transition to semi-solid and solid foods, quality and diversity of foods, with emphasis on micronutrients and anemia reduction;
- Improved care practices: hygiene, especially hand washing and fecal disposal, illness risk reduction, increased diet and reduced workload for pregnant women; and
- Improved health-seeking practices: immunizations, deworming, recognition of pregnancy and delivery danger signs, regular antenatal care visits and iron/folate supplementation.

Agriculture activities with household farms will complement and leverage nutrition activities. Household farms are typically operated by women. FTF/T will emphasize the utilization of women extension agents and the formation of self-help groups constituted by them for marketing as well as production. This approach will enhance women's control over resources and increase their ability to better act on health and nutrition information learned in nutrition education programs.

FTF/T will also continue previous efforts, such as support for iodization of salt, which promise large returns if done properly. Iodine deficiency has a significant impact on learning performance and cognitive function in children, causing worldwide nearly 18 million babies a year to be born mentally impaired. Even mild or moderate levels of iodine-deficiency lead to mental impairment. The consequences of iodine deficiency are stark, leading to poor educational performance as well as low economic productivity and potential. Iodine deficiency during pregnancy also increases the risk of spontaneous abortions, stillbirths and infant deaths. According to a World Bank financial analysis, strengthening the Universal Salt Iodization program in Tajikistan would be one of the most cost-effective interventions that could be undertaken to improve nutrition in the country and would provide very high annual economic returns—economic savings of $5 million per year—and a benefit to cost ratio estimated at 30:1.

A World Bank briefing paper that contributed to the design of their current nutrition project in Khatlon includes a table of "determinants of child mortality in Tajikistan" (Table 10).

Table 10. Determinants of Child Mortality in Tajikistan[53]

Direct Determinants:	Indirect Determinants:

[53] Source: Anne Bakilana and Wezi Msisha, "Tajik Child Health: All Hands on Deck," *Europe and Central Asia Knowledge Brief,* volume 11 (Washington, DC: World Bank, December 2009), p. 2.

Short breastfeeding duration	Household poverty
Late vaccinations	Low maternal education
Low use of ORT for diarrheal diseases	Household food insecurity
Low antenatal care visits	Rural households
Micronutrient deficiencies	Region of residence
High number of miscarriages/stillbirths	Use of unsafe drinking water and poor sanitation facilities
Low contraceptive use	Long distance to a health facility

The FTF/T initiative, by combining USG agricultural, water and sanitation and public health initiatives and cooperating more closely across those activities with other donors, will, in its districts of concentration, target several of these determinants. FTF/T will work with the World Bank, DoD civil affairs projects, and other donors to ensure that community health facilities are restored and maintained and, it will concentrate efforts on improvement of drinking water and sanitation.

4. PILLAR II: BUILDING THE CAPACITY OF LOCAL INSTITUTIONS AND COMMUNITY-BASED ORGANIZATIONS

Most Tajik farmers have little access to up-to-date market information or to examples of better agricultural and stock-raising practices. Even when they do, they have little ability to put that knowledge to good use. Raising and stabilizing incomes, even incrementally, is the necessary condition for most farmers to begin to seek such knowledge. Understanding that they can make more money—and a business climate that enables them to predict roughly how much more they will be able to keep—provides the incentives for farmers to seek knowledge and information, creating a virtuous circle to replace the vicious one in which most Tajik smallholders are now trapped.

The key to raising incomes and to spreading knowledge is to find, create and support instruments for spreading it. At present, most Tajik villages are isolated from the rest of the country. Most farmers are primarily subsistence farmers even if they work for large farms on a part-time basis. Lack of transportation and electricity have reduced their effective world to what they can reach on donkey-back, even if they now return from village markets not only with tea and matches, but also cheap copies of recent Hollywood films to watch when the electricity is turned on. Many farmers have mobile phones, although electricity cuts and costs are a constraint.

Reducing this isolation requires instruments for reaching the village, first and foremost effective agricultural extension, the development of community-based organizations within the villages, and strengthening and increased responsiveness of local government at the jamoat level.

4.1. AGRICULTURAL EXTENSION

The FTF/T strategy has been formulated in part on the understanding that both government and civil society lack sufficient analytical and administrative capacity. For FTF/T to succeed, the means to reach farmers and households, that is, agricultural extension systems, must be created where they do not exist and helped to develop much further where they do.[54] The FTF/T effort will also focus on creating and supporting village self-help organizations of all types, particularly women's groups, and ensuring that female farmers are able to access extension services and programs.

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[54] Anne Bakilana and Wezi Msisha, "Tajik Child Health: All Hands on Deck," *Europe and Central Asia Knowledge Brief,* volume 11 (Washington, DC: World Bank, December 2009), p. 2.

Modern extension systems are pluralistic; farmers receive advice from multiple actors. FTF/T will promote the delivery of extension/advisory services through both private and public channels, exploiting the strengths of each in the situation for which they are most suited, as well as take a gender sensitive approach and be responsive to the expressed needs of women's groups.

In the private sector, the program will build the capacity of profit-driven value-chain actors to provide technical assistance to their commercial-farmer clients. These activities will create new profit centers for progressive companies that supply inputs and market produce, and will complement the work of independent advisory services.

In addition, the program will build the capacity of public sector extension to organize small, presently non-commercial farmers whose inability to pay for advisory services leaves their needs unaddressed by profit-driven providers. These farmers, who are primarily women, will be organized into self-help groups to facilitate their acquisition of knowledge about inputs, production techniques and market opportunities. There is an increase in the status of women when they work in groups. The support of the group enables individual women within the group to feel empowered, and earn a voice in the community and assert more control of resources at the household level. This is an important time for Tajikistan's women to become empowered within their households, as an estimated million men have migrated to find work abroad, leaving their families behind on rural farms.

The program will build the capacity of existing local government agricultural agents to provide the advisory services required by the self-help groups, and to eventually take over the function of organizer. Alternatively, the public sector could serve as a referral service and/or provide subsidies to enable small farmers, who would otherwise lack the means, to obtain extension assistance from non-governmental service providers.

To succeed with this approach, FTF/T must catalyze a transformation in public administration from running agriculture from the top-down to being bottom-up and market driven. Local government has not always been supportive of agricultural diversification in the past, but it is a critical institution with the community presence to facilitate scaling up extension services to smallholders nationwide.

The USAID Modernizing Extension and Advisory Services project will be utilized to provide planning and technical assistance in this area. This project is a leader in the development and application of agricultural extension practices and will ensure that FTF/T benefits from the most up-to-date experience from around the world.

4.2. FOCUS ON GENDER ROLES OF BENEFICIARIES

Women's limited control over household resources is due not only to conservative family traditions. Under-investment in women's capacity to earn income is another factor. With less education and training than their male counterparts, their opinions on livelihood matters are less valued. FTF/T's extension effort emphasizes support to household farms where women predominate, raising their stature in the family hierarchy, and increasing their say in the use of family resources.

The focus on women does not mean the exclusion of men. FTF/T recognizes the need to also understand and address the constraints faced by men in earning livelihoods and using resources for improving family welfare. Appropriate messages and delivery channels will be developed to raise nutrition and health awareness among men, complementing that given to women.

Gender roles will be considered in the design of service delivery. Studies will be conducted to better understand prevailing issues and practices, and to identify promising approaches for promoting agricultural extension and other services for women. Given cultural norms in Tajikistan, trained female

facilitators are needed to work with rural women in most areas. Previous donor projects have identified and trained good female facilitators, including many jamoats in Khatlon. So the first step in focusing on women beneficiaries is to identify and develop a staff of female trainers and local agents.

Those women then act as local organizers, helping to spread a variety of messages. If their work is combined with small physical improvements, such as drinking water pipes or agricultural demonstrations, they will eventually learn about the community and the most important issues around which further organizing can be conducted.

Most villages will have at least one or a few women activists who may be willing and eager to help. They should be encouraged and, if necessary, protected.

To set an example, staff implementing USG-supported projects will be expected to receive training on relevant gender issues.

Where appropriate, all legal-drafting and related work should contain gender-specific language to address existing inequities. Consideration should be given to advocating changes in the Family Code and Civil Code to ensure those laws are gender-neutral and that their implementing regulations take into account gender factors.

All efforts to advance agrarian reform on the ground should ensure that women are fully represented and receive and control their share of land and water resources. Women should also be included in all agricultural extension activities. They are the main keepers of household farms, and they need agronomic knowledge and health and safety information at least as much as male farmworkers.

4.3. SUPPORT COMMUNITY-BASED CIVIL SOCIETY ORGANIZATION

Extension agents will also help to organize village support groups of various kinds, work with existing community based organizations and local NGOs, and participate in existing or newly formed village development committees, including teachers, religious leaders, political leaders, health providers and women.

Many villages remain severely undercapitalized. The FTF/T implementers will consider making grants to local NGOs and community-based organizations to support activities to promote community development related to food security.

5. PILLAR III: COMPLETION OF EFFECTIVE AGRARIAN REFORM IN SELECTED DISTRICTS OF KHATLON PROVINCE

Only the national government can complete a nationwide agrarian reform. However, given its limited resources and confidence, the GOTJ is not able to implement its reform agenda on that scale at present. Therefore, the first step is to demonstrate the success of reform approaches on the scale of one province, both to increase the government's confidence and to attract the investment necessary for broader implementation. The GOTJ is eager to undertake this step, and welcomes support so that it can more assertively monitor outcomes and ensure that regional, district and community governments vigorously carry out national policies. FTF/T will constitute a cornerstone of this effort, working with the GOTJ and other donors to not only achieve significant impact in the large, priority region of Khatlon, but also demonstrate the success of reform approaches there that are planned to be rolled out nationwide. Once agriculture has become a profitable enterprise for the rural population, demand for

real reform will grow and ensure that it can really have an effect in the FTF/T districts and then throughout Tajikistan.

5.1. ONGOING AGRARIAN REFORM

Important national reforms currently underway include:

- development of water users' associations working as part of river-basin management schemes;
- tax and regulatory reform;
- local government reform;
- business climate reform;
- land market development; and
- improvement of agricultural financing systems.

FTF/T agriculture development and nutrition investments, combined with the GAFSP-funded irrigation infrastructure, World Bank land titling project and other donor programs, will be aligned to bring all these reforms together in Khatlon.

Creating commercially viable, profitable farming will help solve the problem of maintenance of the expensive irrigation works and charges for irrigation water. Interviewers have repeatedly been told that as long as the farmers are not receiving water when and where they need it, they will not pay for it. But if farmers see that more profitable higher-value crops can be produced, it should become easier to convince them to invest in operation and maintenance of irrigation and drainage works and to pay for water. Water users' association members will pay their fees (effectively, a local tax) when they see reason to. This economic process will eventually sort out which facilities are really needed and which can be abandoned or demolished.

Enterprise privatization in Tajikistan is far from complete. Most large enterprises were merely transformed into state-owned corporations. Small and medium enterprises, too, have largely been denationalized in opaque ways that often promote local monopolies rather than competition. For upstream and downstream agriculture to develop, and production to improve, barriers to entry in those sectors must be greatly reduced and the business climate fundamentally improved.

To use land effectively, farmers need market demand for the product and access to the inputs to produce them. Without effective upstream and downstream agriculture, land ownership or use rights are empty. Farmers will not value them because they know they cannot utilize them, and those rights eventually will be lost to speculators seeking to accumulate large land holdings. Rather than breaking up large holdings into small holdings that will lead to poverty reduction and an increase in social equality, such land reform will, sooner or later, simply lead to a reconsolidation of land in large holdings and the reinforcement of rural underclass status for most villagers.

The land reform effort to date has focused on macroeconomic issues, particularly ending agricultural subsidies, and the land-use rights are to become tradable securities, exactly like corporate shares. The assumption has been that farm land-use shareowners could and should mortgage their shares to provide working capital for the annual production cycle, which would end the need for state subsidies. However, this presumption confuses the need for annual working capital with that for long-term investment capital. In developed market economies, farmers' ultimate creditworthiness may be backed up by the land, but annual production credit needs are normally met by pledging the crop and products themselves. A farmer who needs to directly mortgage his land to finance his annual production is already bankrupt. Work with credit institutions to improve procedures for taking crop and livestock products

as security for working capital, as well as pilot efforts to demonstrate to farmers how these mechanisms can fairly and effectively operate, are needed.

Citizens of Tajikistan have little experience with a developed market economy and, as a result, they do not really know how to create a market economy or understand why it would be beneficial. A successful demonstration is required to show that all the various reforms that have been urged upon them can and do in fact fit together to make a whole, resulting in a new environment that can improve food security and spur sustainable economic growth and development. Assisting in launching agrarian reform in Khatlon will have the greatest impact for several reasons. This province is the heart of the country's cotton monoculture, and, being on the Afghan border, would have the most severe consequences for the country if it were to be destabilized. Also, because of its large food insecure and poor population, success in Khatlon will produce a demonstration effect that will expedite nationwide rollout.

5.2. NATIONAL POLICY REFORM

Tajikistan is a unitary, not a federal, state. Formal policy changes—laws, regulations and procedures—must therefore be adopted at the national level.

The GOTJ lacks policy-making and monitoring capacity. Their staff, many of whom are dedicated long-term professionals, are, like all government employees everywhere, often too busy dealing with immediate crises to design and implement well-thought-out initiatives. There is a very limited pool of trained researchers and analysts upon whom policy makers can draw for help. Neither professionals nor policy-makers have sufficient experience with a developed market economy and so they often miss fundamental issues.

The Tajik Government's institutional structure still formally follows that of the Soviet system. Policy planning is largely done in the Presidential Administration, which is directly responsible to the President and also provides the staff for the Prime Minister and his deputies. Additional staff for planning—which usually means determining physical quantities of something to be output, not policy development—is often informally seconded from the Ministry of Economic Development and Trade (MEDT), the former State Planning Committee. Line ministries are narrowly specialized and essentially function as implementation agencies. The Ministry of Agriculture, the Ministry of Land Reclamation and Water Resources, and the State Committee on Land Management, formally equal, are all subordinate to the Deputy Prime Minister for Agriculture. The MEDT and Ministry of Finance are subordinate to another Deputy Prime Minister.

For various reasons, neither the donor community nor the GOTJ have deep institutional memory of previous efforts at economic and social reform in Tajikistan. The Deputy Prime Minister for Agriculture, who is now responsible for the entire reform of the agrarian sector in Tajikistan, including managing the new Food Security Council, has no dedicated staff working full time on food security or the overall agrarian reform. Although the Development Coordination Council has been actively involved in the country consultative process, there is frequent personnel turnover and agricultural reform does not get much consistent attention from most donors.

Experience in Poland, Hungary, the Czech Republic, the Baltic states, Ukraine and the South Caucasus states shows that decollectivizing and developing market economies—processes that must succeed in Tajikistan if its food security is to be assured in the long run—in centralized post-Soviet governments requires spending considerable effort engaging national authorities if efforts in the villages are not to be negated. Such actions are most often taken not out of malice or a desire to see an effort fail, but simply because officials have assignments that will harm the donors' initiatives and do not understand those effects.

To cope with these difficulties, the FTF/T intervention will support the organization and operation of an Agricultural Implementation Support Unit (AISU). Although a relatively small effort, the AISU will help to guarantee the success and sustainability of the overall program. It will work closely with and under the general direction of Deputy Prime Minister for the Agricultural Sector Alimardon, who has become the primary champion of agrarian reform in the GOTJ.

The AISU has five major purposes:

1. Ensure that all concerned remain focused on the goal of agrarian reform and food security in general;
2. Provide staff support for the donor community and senior Tajik policymakers in the process of reform;
3. Build capacity in the GOTJ capable to address demands of government and public administration in a market economy and an open world;
4. Ensure "institutional memory" and consistent coordination for donor initiatives and government policy;
5. For FTF/T specifically, develop and maintain information on the baselines and impact evaluation to measure the effectiveness of the program. Currently, neither the GOTJ nor the donor community have much of the information that is required for FTF/T monitoring and evaluation.

The unit will spend much of its time acting as what is, in effect, a translator, helping the donor and Tajik sides to better understand each other. As a result, the AISU will increase country ownership of the FTF/T strategy.

The AISU is a staff agency, not a line one. It provides advice and support to both donors and the Deputy Prime Minister. It should be administered by a multi-donor steering committee. The unit should have a small staff of GOTJ personnel.

6. RISKS

As with any strategy, there are potential risks that threaten its successful completion. It is prudent and appropriate to consider and minimize foreseeable problems.

6.1. REGIONAL TRADE INTERRUPTED

Regional trade flows are already interrupted fairly regularly at the Uzbek-Tajik border as, according to the Tajik side, Uzbekistan pressures it to adopt specific policies. Similarly, Russian measures such as increasing gasoline prices in 2011 and the 2010 embargo on grain exports exert pressure on Tajikistan. These measures cannot be entirely foreseen or prevented. However, since Tajikistan cannot be self-sufficient in food grain except at great cost, and continuing population pressure means that it cannot be self-sufficient in grain at all in the near future, this risk must be managed, not eliminated. It can be ameliorated by diplomatic efforts to reduce regional tensions and settle disputes. Completion of Tajikistan's accession to the WTO will also assist it in regional negotiations.

Arguably, climate change is the greatest risk. By 2050, wheat yields in Kazakhstan are expected to decrease by at least 25 percent,[55] and the Government of Kazakhstan has yet to undertake mitigation measures commensurate with the risk. USAID/Central Asian Republics (CAR) is exploring opportunities

[55] USAID Productive Agriculture Project in Tajikistan, *Marketing Chain Analyses for Onion, Lemon, Watermelon, Apricot, Tomato and Beef in Tajikistan* (Dushanbe, 2010).

to provide assistance to build resiliency for Kazakhstan and the region on the impact of climate change on wheat harvests.

Regardless of climate change effects, Kazakh wheat yields are already highly variable from year to year, and Kazakhstan has a history of imposing export embargoes in times of rising domestic food prices. The FTF/T strategy assumes that Tajikistan will continue importing relatively low-cost wheat. A severe decline in Kazakh wheat yields would pose a significant long-term threat to that strategy's success by reducing exports from the nearest potential supplier. A shortfall in wheat imports from Kazakhstan could be made up from other suppliers, but doing so would raise the cost of imports.

6.2. CIVIL DISORDER SPILLS OVER FROM AFGHANISTAN OR ELSEWHERE

There is a long history of cross-border communication between Tajikistan and Afghanistan. Pressure on the Taliban as a result of success in the war in Afghanistan, or pressure on narcotics producers there, could foment civil disorder in Tajikistan as the insurgents seek shelter across the border. Conversely, should instability become worse in Afghanistan following the scheduled withdrawal of NATO troops, that turmoil would also likely be reflected in more insurgent activity in Tajikistan, particularly in Khatlon.

Given time to go into full implementation, the FTF/T strategy can reduce this danger. A real increase in food security and reduction in poverty in Khatlon Province will make the vast majority of its residents less willing to tolerate, or join, insurgencies, and also increase popular willingness to resist insurgents should they appear.

6.3. CORRUPTION

Petty corruption must always be discouraged. The best way to minimize it is to ensure that strict controls are maintained and observed during implementation. At a more general level, transparency, public participation and regular public reporting must be maximized.

6.4. VILLAGES OR JAMOATS REFUSE TO COOPERATE

Jamoat officials or other influential village members may refuse to cooperate with the intervention. When they do, once it is clear that the reason is not something that can be eliminated by further discussion and confidence building, the mitigating measure is to work in other villages or jamoats. If the effort succeeds and has good, visible results, the holdouts will eventually come around. Another potential mitigating measure is to build support from higher-level authorities, who can encourage village/jamoat officials to participate.

6.5. VALUE CHAIN DEVELOPMENT DIFFICULTIES

From the limited range of choices available, the selected value chains in the strategy seem most likely to produce the results intended. The primary mitigation measure here is to be certain that the focus of the value chain activity is on meeting real, effective market demand. There is, however, a risk that the market has been misjudged or that market conditions could change.

The primary way to minimize this risk is further careful, detailed examination of market conditions, production levels, and income both in the initial phase of the implementation of this strategy and though good monitoring and evaluation for the life of the effort. For example, selling in the Russian market, where demand for imports is vast relative to Tajikistan's production potential, appears to have great promise. In addition, the promotion of self-help groups among beneficiary household farms will gradually gain the capacity to better understand the market and react to its demands, including the exploitation of quick-changing niches in the domestic market.

6.6. CHALLANGE OF CONSISTENT DONOR COORDINATION

Coordination between USG efforts, much of which will be technical assistance, and various other agencies, which can provide large amounts of capital, such as the World Bank and IFAD, will greatly increase the impact of the FTF/T intervention. However, donor coordination is sometimes challenging, and in the past the donor community in Tajikistan has not always acted together. Donor coordination is especially difficult when the recipient country's institutions are weak and its government does not always speak and act consistently.

This risk will be mitigated in a variety of ways. Consultations and negotiations about the FTF/T strategy are already underway with the donor community. Those efforts will increase as the FTF/T process develops. To minimize problems of personnel turnover in the international community, decisions will be documented, and agreements on cooperation clearly set out in memoranda of understanding.

The AISU also mitigates this risk by acting as a secretariat for the FTF/T effort.

7. INTERMEDIATE RESULTS

These intermediate results are designed to support and lead to the second-level objectives of the Feed the Future results framework.

Since FTF/T is a whole of government initiative, and since attaining the goals and objectives of FTF in Tajikistan require that some overall reforms be carried through in the focus regions, the description of Intermediate Results (IRs) include some activities necessary to achieve the FTF/T goals that are being carried out by USAID and other USG agencies, but are not paid for from FTF funds.

7.1. INTERMEDIATE RESULT 1: MARKETS EXPANDED AND VALUE CHAINS STRENGTHENED

Development Hypothesis

Better access to markets drives a desire to increase production. So long as markets are not glutted, increased marketable production will increase producers' incomes.

Increased household income combined with improved decision making about food utilization will result in improved food security. High-value fruits and vegetables are the most profitable crops to grow in lowland cotton growing areas which have access to irrigation water and a nine-month growing season. Small farmers, especially women, have a comparative advantage in producing high-value fruits and vegetables for which there is a high return on the investment of hand labor.

Intensive horticultural production can be learned on household farms and expanded to the plots of former collective farm land to which most families have access. A number of small-scale commercial farms already exist and are poised to benefit from further intensification. Their development will create employment, help provide the needed produce volume for export value-chain development, and drive demand for access to more land and water, motivating further reform.

Building the management and technical capacity of input supply and produce marketing companies will enable them to expand market volumes. Tajik companies are relatively new competitors even in nearby export markets such as Kazakhstan and Russia and lack experience in meeting the demands of the modern, global marketplace. Technical assistance to support affordable capacity building by local

business service providers will allow Tajik producers to create new market opportunities to which the more productive farming sector will respond.

Initial analysis suggests that the most suitable value chain to achieve these goals is fresh fruits and vegetables.

Domestic and Export Markets Expanded

Enable produce marketers to organize for undertaking market research and accessing technical assistance to build their ability to meet market demand. Promote linkages to foreign partners.

Outcomes

- Value of gross agricultural product for the appropriate territorial unit (jamoat, district, province or country as a whole) increased
- Value of exported production increased

Management and Technical Capacity of Private Input Suppliers and Private Produce Marketers Increased

Link suppliers, processors and marketers with business service providers to improve business planning and management, access finance, and improve technical operations. Improve linkages to farmers and external suppliers.

Outcomes

- At least one private produce consolidator sustainably operating per targeted jamoat
- At least one private input supplier sustainably operating per targeted jamoat

Harmonization with GOTJ plans and priorities

As a number of recent policy documents indicate, GOTJ understands that agricultural development is the key to the country's overall development, and that increased competitive production and incomes are fundamental to improving food security.

Therefore, GOTJ seeks to increase value-added production and exports of agricultural goods. It has a number of programs in place to support agricultural exporters and promote agricultural exports.

GOTJ understands that the former system of cotton monoculture on irrigated land is no longer appropriate or sustainable. It has repeatedly requested donor assistance in developing labor-intensive high-value production to replace cotton ("crop diversification").

The Republic of Tajikistan adopted a national law on food security at the end of 2010 that reaffirms GOTJ's priority of ensuring food security for its population.

Building on a government program first adopted in 2005, the President of Tajikistan has championed efforts to increase fruit and vegetable production in order to increase household incomes.

7.2. INTERMEDIATE RESULT 2: SMALL FARM[56] PRODUCTIVITY INCREASED

Development Hypothesis

Tajik farmers and households have very limited access to information and education that might help them increase their productivity and improve their household and farm management. What training is available still focuses on very narrow implementing specialties that are inappropriate in a market economy. Government assistance, too, is limited. The Ministry of Agriculture has never been responsible for assisting household farms and is just beginning to develop the capacity to help them. However, although the household farms in aggregate are the principal producers in Tajikistan today, each individual household farm is so small as to be unable to attract fee-for-service advisory services. Newly created upstream and downstream agricultural businesses, too, have little experience in assisting farmers as similar businesses routinely do in developed market economies.

Therefore, it is necessary for public extension to work with small farmers, typically women, to employ improved inputs and management for increased productivity and higher quality and to develop the capacity of input suppliers, produce marketers, and for-profit agricultural advisory services to provide advisory services to commercial-scale farmers.

Creating functioning extension services, public and private, is the key to agricultural development and, therefore, to increasing the country's food security. Throughout the world, extension services are also a powerful means for demonstrating a wide variety of improved nutrition, health and home economics practices to rural households.

Creating and supporting local NGOs and community-based organizations facilitates the ability of extension services to reach and train farmers and rural households.

Small Farmers Assisted to Market More Profitably and to Expand Their Operations

"Small" farmers are those persons, households or small groups who farm household plots or commercial *("dehkan")* farms that have been substantially reformed and are less than the median commercial farm size in the district.

Outcomes

- Value of farm-gate sales of selected value chain products increased by the percentage increase in yields (20 percent). (FTF Results framework "Value of incremental sales (farm level)"
- 50 percent of households in FTF/T focus area have applied improved cultivation techniques (FTF common indicator)
- Hectares under improved cultivation techniques increased (FTF common indicator)

Capacity of Multiple Forms of Agricultural Extension to Work with Farmers, Households and Rural Communities Increased

Outcomes

- Extension services are available in every jamoat in FTF/T areas
- Gross margins per hectare of value chains with which extension service has assisted increased

[56] Here, a small farm is meant to include household plots, presidential land, and dehkan or leased farms under 2 ha used for either commercial or subsistence purposes.

Community-Based Organizations Strengthened

"Community-based organizations," sometimes called "self-help groups" by extension specialists, are village or jamoat-based voluntary groups of residents that unite to improve their lives in some way. They are likely to be, but need not only be, women's groups. Community-based organizations are natural partners for extension service providers.

Outcomes

- Community-based organizations organized and functioning in every jamoat in FTF/T target areas
- Community-based organizations linked to agricultural extension and other resources

Local Government Responsiveness to Community Needs Increased

Local government agencies and organizations include the jamoati dehot, the rural council (analogous to a county in the United States) and the mahalla, a "neighborhood" council. Since decollectivization, the jamoat is the main point of contact between government and most of the population.

This IR will be achieved by FTF/T project(s) operating in concert with a project or project(s) funded from non-FTF monies as part of the USAID/CAR mission's Democracy and Governance work.

Outcomes

- Local government transparency and effectiveness increased
- Agricultural extension through the jamoats improved
- Jamoat liaison with and assistance to community-based organizations improved

Harmonization with GOTJ plans and priorities

GOTJ is committed to a comprehensive reform of its governance and system of public administration from national agencies to local councils. Creating agricultural extension systems to respond to farmers' expressed needs and to support their development is a part of that reform, splitting the functions of responding to farmers' needs from those of rural government proper.

The GOTJ is also committed to expanding opportunities for competitive private business to serve farmers.

7.3. INTERMEDIATE RESULT 3: SUCCESSFUL AGRARIAN REFORM DEMONSTRATED IN KHATLON

Development Hypothesis

Agrarian reform is a complex process that requires balancing considerations of economic efficiency and social equity, political power and administrative possibility. Without access to land, water and capital, and without belief that their investments and most of their returns will be protected, farmers cannot and will not develop their farms. As part of the FTF/T concentration, it will support the demonstrated conduct and completion of the agrarian reform package—changes in the relationships between producer and consumer, marketization, land tenure, water management, as well as all of agriculture technology from field to fork. This is ground-level implementation, to transform one region of the country, to demonstrate the benefits of the changes, and to develop procedures that the GOTJ can use to replicate the transformation elsewhere.

Agriculture in Tajikistan is impossible without irrigation, and the 70 percent of the population that lives in the countryside is mostly dependent on irrigation water supply systems for potable water. The system was not designed to be economical or particularly efficient, and so must be fundamentally restructured.

Improved management of the irrigation water system and increased productivity, bring more land into production, and reduce soil erosion and salinization. The dysfunction of government management and loss of public investment have reduced irrigation water supplies and rendered them unreliable. The institution of water users' associations at the local level increases water supplies and collection of water fees, and organizing water management according to hydrological rather than administrative boundaries, facilitates more rational water management.

Allowing household farms to commercialize their operations drives land reform and farm restructuring "from below," within the village community, complementing actions to divide the large farms into smaller units, and offers households access to the land they need to expand their operations and income.

Water Users' Associations Created and Strengthened

Outcomes

- Water users' associations maintaining systems, providing service to members and paying fees wherever there is irrigated agriculture in the FTF/T focus districts.

Redevelopment/Economic Utilization of Existing Secondary and Tertiary Water Management Facilities Assisted

Outcomes

- Cooperation with World Bank in rehabilitating irrigation works throughout FTF/T focus regions
- Efficiency of agricultural water use improved

Additional Land for Household and Small Farms Distributed

Outcomes

- More farmers, especially women, have certificates for use of a clearly identifiable parcel of land
- Household farms have access to more land than the current average 0.1 hectare of arable land

Soil Conservation, Anti-Erosion and Water Conservation Techniques (Re)introduced and in Use

Because of cotton monoculture and lack of fertilizer, Tajik farmers have been "mining" their land's fertility. Reintroduction and development of conservation techniques should be incorporated as part of any agricultural extension or land reform activity.

Outcomes

- Soil conservation measures promoted
- Farmers' knowledge of soil conservation best practices increased

Market-Oriented Regulatory Regime for Agriculture Functioning

Outcomes

- Land management, water management, and agricultural services regulation reformed

Market-Oriented Foreign-Trade Regime for Agriculture Functioning

Outcomes

- Agricultural trade and standards regulation reformed to be WTO-compliant
- Trade regulation harmonized to facilitate trade with Afghanistan and other Central Asian countries

Harmonization with GOTJ plans and priorities

The GOTJ has adopted and asked for assistance in implementing a comprehensive agrarian reform program that is in accord with its National Development Strategy and other programmatic documents. In addition, they are showing renewed commitment to WTO accession.

7.4. INTERMEDIATE RESULT 4: NATIONAL POLICY RELATED TO AGRICULTURE AND NUTRITION REFORMED

Development Hypothesis

Sound agricultural policy is necessary for any progress in the agricultural and food sector. Agriculture in Tajikistan has been on a treadmill of reforms since before the country became independent. Yet those reforms have not had the results desired by all sides. Enhanced policy capacity will provide the institutional memory, strategic concepts, and clear explanations of the costs and benefits of proposed policies to produce sustainable results.

This IR focuses on developing and coordinating policies, in land, water, food security, market-driven incentives for farmers, the business environment and trade, to make the reforms real and effective. It complements the on-the-ground implementation activities under the previous IR.

Providing government decision makers with quality policy analyses and improved interface with development partners will improve policymaking and implementation. Development cooperation often fails because policy makers do not have staffing for communicating their positions to and taking advice from development partners. Support from a capable policy analysis unit will enable policy makers to earn support for and implement the bold reforms necessary for the transformation of the agricultural sector. It is also important to facilitate the integration of agriculture and health policies, for instance through close cooperation between the AISU and the Health Policy Analysis Unit in the Ministry of Health, in a way that reinforces the connections between the sectors in reducing malnutrition.

Building on existing agriculture and food security strategies, the GOTJ is currently engaged in refining its program for land, water, and agricultural reform, developing 10-year sector strategies for each of these areas, and using these strategies to prioritize investments under resource constraints and update the country's Country Agriculture Investment Plan. FTF/T policy assistance will help the GOTJ design and implement these changes. FTF/T will also work with WHO to assist the GOTJ to finalize a National Nutrition Strategy and support advocacy efforts to promote the targeted allocation of resources for nutrition programs.

Obviously, while FTF/T implementers can advise on and help prepare legislation, and explain why it is needed, they cannot control the schedule of its adoption.

Policies to Support an Agricultural Land-Use Rights Market Developed and in Place

Outcomes

- Land-use share rights holders and all rural households have secure land tenure rights
- Household farms have legal-secured access to additional land and can become commercially oriented operations
- Irrigated arable areas planted to low-yielding cotton decline substantially
- Mechanisms for small farmers to access production (seasonal) funding and investment (long-term) capital through mortgage of the appropriate classes of assets (crops and produce, and real estate and land-use rights, respectively) in place and functioning
- Improved farm governance procedures for holders of land-use share rights developed and in place

Water Reform Policies Developed and in Place

Outcomes

- First integrated basin management scheme operating effectively

Agricultural Policy Capacity Strengthened

Outcomes

- Equitable agrarian reform policy adopted, consistent with market-economy requirements
- Improved cooperation between Ministry of Agriculture, Ministry of Land Reclamation and Water Resources, State Land Committee, other government agencies, donors and other stakeholders in implementing agrarian reform and in agricultural and rural development overall
- Solid baselines developed for monitoring of agrarian reform and food security, including FTF/T, and data collection routinized
- Improved access to information and data needed for planning and implementing agriculture and food security interventions for the entire donor community
- Country Investment Plan updated to reflect new land, water, and agrarian reform sector strategies

Nutrition and Health Policy Improved

Outcomes

- GOTJ food security and nutrition monitoring capacity strengthened and sustainable
- Regulatory and enforcement mechanisms for salt iodization policy developed and implemented
- 2012 Demographic Health Survey conducted
- Food and Nutrition Action Plan and other national strategies developed, funded and being implemented

Harmonization with GOTJ plans and priorities

GOTJ considers land reform and making land-use rights tradable securities a fundamental part of its continuing program of macroeconomic stabilization. Effective use of land to increase incomes is also a government priority.

GOTJ has explicitly asked donors for policy support in several institutions including the Ministry of Agriculture, as well as advice in implementing structural and functional changes to make government institutions at national, region and local levels concerned with agriculture operate more effectively to improve food security and incentives for farmers to produce.

The GOTJ established a cabinet-level Food Security Council in June 2011. The AISU would facilitate the work of that council which is headed by the Prime Minister, but relies heavily on the Deputy Prime Minister for Agriculture.

7.5. INTERMEDIATE RESULT 5: NUTRITION IMPROVED

Development Hypothesis

The following contribute to undernutrition and malnutrition in Tajikistan:

- poor infant and young child feeding practices and poor nutritional management of sick infants and children;
- inadequate protein and micronutrient intake, particularly during pregnancy and lactation;
- a high incidence of infectious and parasitic diseases and diarrhea; as well as
- income, seasonal and cultural influences on household food availability and distribution.

While high rates of malnutrition are clearly associated with poverty, increasing household income alone will not improve the nutrition and health status of poor, food insecure households. Nutrition knowledge is limited among both health workers and the public, and there is insufficient understanding of the interaction between food consumption and health. Increased knowledge of appropriate dietary practices, especially during the critical 1,000-day window from the start of pregnancy to age two, as well as improving household economics, gardening, food preservation, and livestock management to improve food access and availability throughout the year, will help promote the consumption of nutritious foods. Community-based programs have already had some success in Tajikistan in changing behaviors regarding nutrition, and those messages will be reinforced through community-based awareness campaigns and better implementation of national nutrition policy.

However, to make inroads into existing high levels of undernutrition, FTF/T will focus on the targeted delivery of proven health interventions to address nutritional deficiencies, improve feeding and dietary practices, and support essential health care needs of women and children, particularly pregnant women and children up to age two.

FTF/T will prioritize the implementation of public health interventions to address the immediate causes of malnutrition. Recruiting and training community health workers for home visits and supporting facility-based health workers for community outreach and facility-based care and counseling, FTF/T will integrate nutrition interventions, social and behavior change communication approaches, and maternal and child health activities at the household, community and health facility level. Activities at all levels will:

1. promote exclusive breastfeeding for six months;
2. introduce appropriate complementary feeding starting from six months;
3. provide appropriate feeding and fluid for sick infants and children;
4. improve basic hygiene practices such as hand washing; and
5. support intake of micronutrients such as Vitamin A for women and children, Sprinkles/MNP to address anemia and micronutrient deficiencies in children, iron/folate for pregnant women, and zinc for diarrhea.

To further address anemia in children, FTF/T will coordinate closely with MOH and DoD to link deworming campaign activities with community-based nutrition interventions. In addition, to address iodine deficiency, FTF/T will support ongoing efforts to promote and enforce universal salt iodization by strengthening the capacity of government to monitor salt iodine levels and partnering with the private sector to improve quality assurance in salt iodization.

Second, building on and complementing FTF/T activities to improve the availability and consumption of nutritious foods, FTF/T health efforts will address the wider determinants of maternal and child undernutrition, which include infectious diseases, malaria, frequent and closely spaced pregnancies, and limited antenatal and post-delivery care. FTF/T will use community-based, outreach and facility-based approaches to link women and children to essential services to prevent and treat childhood and infectious diseases such as diarrhea and acute respiratory illness. Maternal and child health interventions that will be promoted include immunization, antenatal, delivery and post-delivery care. FTF/T will promote use of insecticide-treated bed nets and other materials in malaria-endemic areas. FTF/T will also promote family planning as an optimal birth spacing intervention and one that will facilitate a recuperative period during which a mother can rebuild energy and micronutrient stores.

About half of all Tajik rural households do not have access to clean, safe water. Currently, USAID Safe Drinking Water Project's efforts, not financed by FTF, are a critical part of overall efforts to improve nutrition and health.

Rural health facilities need support, which is being provided by a number of donors including USG. This intervention, though not FTF-financed, is critical for making overall advances in nutrition.

Nutrition, Sanitation and Hygiene Education Programs Operating

Outcomes

- Stunting and wasting reduced over 5 years
- Increased prevalence of exclusive breastfeeding under 6 months of age
- Increased prevalence of children 6-23 months receiving more nutritious foods
- Decreased prevalence of iodine deficiency among women and children
- Mother and Child Health and Nutrition behaviors significantly improved

Access to Potable Water in Villages Increased

Outcomes

- Village reliance on irrigation water for household use reduced
- Prevalence of water-borne diseases reduced
- Village spending on trucked-in water supplies reduced
- Women and children relieved of the labor of carrying water from distant water sources

Programs to Enhance Village Health in Place

Outcomes

- Small targeted sanitation and hygiene interventions implemented to reduce the incidence of diarrhea
- Agricultural extension, nutrition education and maternal and child health activities coordinated
- Access to essential maternal and child health services increased through strengthened capacity of community and facility-based health workers

Harmonization with GOTJ plans and priorities

As part of its overall effort to attain the Millennium Development Goals, GOTJ has devoted increased budgetary resources to rural medical care and village education. It is recognized that maternal and child health and nutrition interventions can be an important part of these initiatives.

GOTJ has a universal salt iodization program that USAID helped to develop. While notable reductions in iodine deficiencies have been made in some parts of Tajikistan, there are still significant problems in Khatlon. FTF/T will work to build the capacity of the GOTJ to enforce the program and build partnerships with the private sector to enhance compliance.

FTF/T will utilize the USAID-supported GOTJ 2012 Demographic and Health Survey to continue to inform approaches during the life of the FTF/T program.

FTF/T will continue to engage the GOTJ, WB, WHO, UNICEF and other stakeholders on the Food and Nutrition Action Plan and other national strategies that support improvements in maternal and child health and nutrition.