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HUMANITARIAN ASSISTANCE NEEDS

IN

CENTRAL ASIA

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the U.S. Agency for International Development

by

The Emergency Humanitarian Assessment Team
in the New Independent States

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(The recommendations and conclusions contained in this report do not necessarily reflect the policy of the U.S. Agency for International Development)

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EXECUTIVE SUMMARY: CENTRAL ASIA

In all the Central Asia locations visited, there were clear needs and appeals for medical supplies, pharmaceuticals, and technical assistance. Food availability is not a problem. Purchasing power to buy food at high prices is a key concern.

Food is readily available today in markets and stores in Central Asia. Most of the Central Asian republics produce an ample supply of fruits and vegetables. However, with the exception of Kazakhstan, the republics import large amounts of grain for human and animal consumption through trade or barter. (Uzbekistan depends more heavily on trade than the other republics, importing 75 percent of its grain.) Although grain shortages could develop, they are not yet a problem. The current issue is price, not supply. Large families and people on fixed incomes cannot afford to buy the food they need.

Indigenous Central Asians traditionally take care of their own family members. For example, they believe it would be dishonorable for any family member to eat at a government stolovaya, or subsidized canteen. (Most Central Asians consider aid in any form degrading.) Thus, the vast majority of people on fixed incomes needing assistance in Central Asia are Russian-speakers, and they benefit disproportionately from the social services offered by national and local governments.

Many of the national governments in the region have publicly committed themselves to providing for all in need, regardless of ethnic origin. However, social welfare expenditures represent a large percentage of the national budget in each country, and the republics are finding that maintaining this level of support is difficult. As the transition to a free market progresses, unemployment numbers will sharply increase, further draining state treasuries. As continuing economic disruption forces governments to limit support to the most vulnerable sectors of the population, indigenous communities may begin to resent the resources spent on Europeans.

In addition, if arrangements for procuring grain from outside the republic are disrupted by hard-currency shortages, outbreaks of ethnic conflict, or disagreements between neighboring countries, pockets of food shortages and malnutrition could result. Thus, the U.S. government should continue to monitor health and welfare indicators in the area.

So far, most humanitarian food assistance to the Central Asian states has been given to the institutions (*internats*) operated by the Ministry of Social Welfare in each country. For example, Operation Provide Hope supplied surplus military food to

orphanages, homes for the elderly, and mental institutions in each republic. In addition, Red Crescent Societies in several countries received supplies for home-visitor and meals-on-wheels programs to deliver to elderly shut-ins.

At the moment, most of these institutions are not suffering acute need because they are given top priority for supplies by the government. Also, except for Kazakhstan, the Central Asian republics have few *internats*, designated stolovayas for elderly pensioners, or even pensioners who receive assistance in their homes. For example, Turkmenistan has only six *internats* in the entire country with only 1,500 residents. While there are 6,000 single pensioners in the republic, only 2,000 need assistance, and only a quarter of those are classified as shut-ins who require daily home visits.

Continuing to provide assistance through the social welfare system will inadvertently assist mostly Slavic populations in Central Asia. Central Asian republics saw U.S. food aid as assistance to non-Asians. Local officials were aware of this problem but none brought it up directly. Instead, they asked for medical assistance in the future -- the medical system serves the entire population.

This raises an important issue: how can humanitarian aid be provided in an equitable manner to the Central Asian population? For starters, medical aid -- not food -- should be sent to the Central Asian countries. And what food aid is available should be monetized in private markets or, to a lesser extent, in state stores. In addition, most countries have asked for technical assistance. (See the sector summaries or country reports which follow for specific technical assistance recommendations.)

Kazakhstan:

Medicine is required, but food is not in short supply. It is expensive, however, especially for those on fixed incomes. (The cost of living is about 20 percent higher than the lowest pension.) Most people are living on food preserved for the winter. Others are coping by trading/bartering. In addition, food sharing is traditional.

Kazakhstan is a food exporter and does not usually import food. It has vast oil and mineral reserves and can afford to buy those items it does not produce. Due to drought, poor management, and the upheavals in the former USSR, Kazakhstan did import grain last year. There are also some indications of strain in the 1992 crop: some of the new private farms have already sold their 1992 harvests on the emerging futures markets and some are selling the 1993 crop -- apparently because

agricultural credit is not available for the private sector. Seeds are not a problem but fertilizers and pesticides are.

A number of the non-Kazakh residents are moving out of the country or considering doing so. About two-thirds of the 900,000 or so ethnic Germans -- many of whom run the most efficient farms -- are applying to go to Germany. However, Russian discontent presents the greatest threat to stability. A law making Kazakh the official language has alarmed the non-Kazakh population. Russians in the north are especially concerned and there is talk of secession, which could lead to civil war. However, Kazakhstan's government has made many public statements assuring Europeans that they are welcome.

Kyrgyzstan:

Kyrgyzstan -- where a majority of the people live in poverty -- may be the most vulnerable Central Asian country. Medical supplies are needed. In addition, imports required to meet basic needs far surpass Kyrgyzstan's export ability. The social welfare protection system is beginning to fail and will be further strained by the high unemployment expected later this year. According to the president's ethnic-affairs adviser, ethnic groups are in a state of psychological shock since the dissolution of the Soviet Union, and few believe they can control their own lives.

Kyrgyzstan reportedly needs to import 1.3 million MT of grain this year, but by late March, it had procured only 280,000 MT. However, food availability so far is not a problem. The markets are full of a variety of foodstuffs; the only items in short supply are vegetable oil and sugar.

Like the other republics, Kyrgyzstan's immediate problem is the price of food compared to income. Some 8,000 pensioners, mainly Slavs who live alone, are considered most at risk; they are assisted by the Kyrgyzstan Red Crescent and the Fund of Mercy. However, these agencies are critically short of funding and have had to reduce caseloads and staffing. The Red Crescent, for example, serves only 4,000 of the 10,000 registered.

Agricultural officials are generally optimistic about the 1992 season, principally because of good rains to date and a three-meter snow cap in the mountains. Fertilizer, which now costs some 30 to 40 times more than in 1991, is a major concern. As a result, Kyrgyzstan intends to reduce its fertilizer imports by 50 percent and to rely more on local organic fertilizers.

Privatization in the agricultural sector has proceeded faster than in most other Central Asian republics. Although some farmers have clearly had outstanding success, the experience so

far appears uneven. No clear picture of the results will be possible until autumn 1992.

The impact of the souring economy will be exacerbated by ethnic difficulties. Ethnic Kyrgyz, who are in the majority, are already showing resentment over the fact that they cannot compete on an equal footing with other ethnic groups. Privatization tends to favor those with sufficient resources to buy land, shops, and flats -- i.e., the Europeans and the Uzbeks living in the country. Laws intended to compensate for the inequity are raising tensions, and inter-ethnic violence could occur. If so, a massive out-migration of Russian-speakers and other Central Asians could be expected.

Today, there has been a slow-but-steady out-migration of Europeans from Kyrgyzstan. The dissolution of the Soviet Union has accelerated the out-migration, particularly of Germans and, to a lesser extent, Russians.

Tajikistan:

Tajikistan is a poor country with a monoculture -- cotton -- agricultural economy. It needs medical supplies. Despite a weak cotton market, Tajikistan plans to concentrate on cotton production this year and to buy the food it needs with the proceeds from sales. For the time being, the country does not have a food shortage. Though food prices are lower in Tajikistan than in other countries, they are still expensive, especially for people on fixed incomes. (The cost of living is about 15 percent higher than the lowest pension.) Most people are getting by through bartering or by obtaining food from family members in rural areas. As in other Central Asian republics, families are large and food sharing is traditional.

The Tajikistan social protection system is facing a budget crisis, and the government is asking businesses to contribute to help the elderly. The republic has six retirement homes; few Tajiks or other Muslims reside there. Most of the pensioners receiving assistance are Russian or other Slavs.

The agricultural system is still top-heavy and planning remains centralized. Seeds are not a problem, but fertilizers and pesticides are in short supply. There are some indications of strain in the 1992 planting season. For example, many farmers have not been paid since October 1991 for cotton they sent to Russia, and the government is planning to increase next year's harvest without offering suitable incentives to producers. The Ministry of Agriculture claims to be increasing the amount of wheat planted, but state farms do not seem to have received the new instructions.

About one-third of the Slavic population has left the country, and other Russian-speakers say they will leave if Islamic fundamentalism takes hold. Tajik nationalism is on the increase, and a law making Tajik the official language concerns the non-Tajik population, who fear their place in the nation is at risk. Tajiks are also concerned over the treatment of Tajiks in neighboring Uzbekistan. Some observers believe that tensions between the two communities might worsen.

Turkmenistan:

Turkmenistan is a poor country with vast economic potential -- it has large reserves of petroleum and natural gas. In the future, it will be able to pay for anything it needs from the sale of oil and gas. For the time being, the country needs medical supplies but does not have a food shortage. Most people have access to food from relatives in the countryside or grow vegetables in their own home gardens. Though food prices are lower in Turkmenistan than in other parts of the former Soviet Union, the prices are expensive by local standards, especially for those on fixed incomes. (Costs of living are about 25 percent higher than the lowest pension.) The country has a year's supply of grain in reserve.

The Turkmenistan social protection system is projecting a 1992 budget deficit of 4.5 billion rubles, but the government will make that up with contributions from oil sales. There are only a few retirement homes in Turkmenistan, and they have no Turkmen residents. Pensioners receiving assistance in the *internats* or *stolovayas* (state-operated canteens) are Russians or other Slavs.

The country could be self-sufficient in food, but currently agricultural efforts are largely devoted to cotton. (The agriculture system is still centrally planned and will continue to be so in the near future.) However, the government is planning to increase grain yield in 1992 while producing cotton in the same quantities; these plans seem unrealistic. The government has requested 1,000 MT (metric tons) of wheat seed, 2,000 MT of winter wheat seeds, 10,000 MT of potato seeds, 1,500 MT of hybrid corn seeds, and 1,000 MT of soybean seeds. Fertilizers and pesticides are not a major problem.

Turkmenistan has two main ethnic groups -- Turkmen and Russians -- and seems to have the fewest ethnic problems of the Central Asian republics. There has been little out-migration except for Germans, but many Russians say they will leave if Islamic fundamentalism becomes dominant. Though the new constitution provides for a secular state, many Russians and other European nationalities are wary of the direction the country is going. A language law making Turkmen the official

language has alarmed Europeans, who fear their place in the nation is threatened. The government is encouraging them to stay.

Uzbekistan:

Uzbekistan needs medical supplies. Food in markets, however, is plentiful. Prices for basic commodities, although relatively high, have remained stable following the price liberalization of April 1. Because Uzbekistan is a major importer of grain, however, and pipeline supplies through the next harvest are not known, the need for grain in late summer should be monitored on a continuing basis.

The extended family is the major coping mechanism for most of the population in Uzbekistan. At-risk populations in Uzbekistan are primarily elderly Russian-speaking people living alone, women, and children in large, impoverished families. These groups are served by the Red Crescent, the Fund of Mercy, and the Children's Fund, which are facing serious funding constraints and require external financing if severe suffering is to be avoided. The nutritional situation of these groups needs to be carefully monitored. Specific nutritional deficiencies in women and children include iron- and folate-deficiency anaemia and vitamin D/calcium deficiency. Iron and folate tablets should be made available.

In addition, a shortfall in the supply of milk is putting feeding programs for children at risk, so carefully targeted supplies of dried full-cream milk should be provided.

Good rains to date, combined with readily available seeds and fertilizer, give cause for optimism regarding the fall harvest. However much will depend on continued good rains through May. With the exception of the poultry industry, there are no indicators of stress in the agricultural sector. The limited privatization that has occurred in Uzbekistan will have no appreciable effect on 1992 production.

Anti-Russian sentiment in Uzbekistan could erupt, resulting in a rapid and massive out-migration of the population. The possibility of other ethnic disputes appears to be minimal. Fundamentalist Islam has made little headway in Uzbekistan to date. However there are serious social and economic issues in Uzbekistan that are ripe for political exploitation. The most serious problems facing Uzbekistan are its high rate of population growth and the consequent pressure on land, and high unemployment. The latter has particular potential for contributing to ethnic and political turmoil.

Central-Asian Public Health Surveillance:

The current economic crisis in the Central Asian republics of the Commonwealth of Independent States (CIS), provides an opportunity for the United States to provide technical assistance to improve the existing public health surveillance systems, within the current infrastructure of morbidity (infectious and non-infectious diseases) and mortality data collection. In the effort to assist the new republic governments in Central Asia to address the potentially worsening public health situation, U.S. assistance must aim at improving the process of surveillance of disease and delivery of care, as much as providing the necessary supplies, equipment, and technology.

As the current economic crisis evolves, the need for good quality, accurate health-outcome information about all segments of the population, especially vulnerable ones (e.g. children and the elderly), becomes critically important. Health policy makers in the republics require timely, sensitive, and specific health-outcome data in order to target problems, allocate limited resources, and design cost-effective interventions. Considering the deficiencies in the technical capabilities of existing Central Asian health information surveillance systems to monitor emergency public health situations, there appears to be great need for a U.S. Government program to assist in the development of such surveillance systems in the Central Asian republics.

Central Asian Assistance Priorities

The tables on the following pages rank various categories of assistance to the Central Asian republics in order of priority, based on local need as assessed by U.S. government teams.

CENTRAL ASIAN ASSISTANCE PRIORITIES

FOOD & AGRICULTURE

ASSISTANCE	PRIORITY: High	Med	Low	None
A. Food Imports				
Food type:				
Grain	X			
Pulses			X	
Oil	X			
Butter		X		
DSM	X			
Feeds for:				
Cattle		X		
Sheep				X
Chicken			X	
Milk cows	X			
B. Ag.Inputs				
Fuel			X	
Seeds		X		
Fertilizers			X	
Herbicides		X		
Insecticides		X		
Desalients			X	
Animal vaccines		X		
Grain storage facilities	X			
Food processing equipment	X			
C. Technical Assistance				
Privatization	X			
Land Reform	X			
Agricultural enterprise development	X			
Food processing	X			
Livestock immunization and veterinary service	X			
Integrated pest management	X			

NUTRITION

	ASSISTANCE	PRIORITY High	Med	Low	None
A.	Promotion of Breast Feeding	X			
B.	Reduction of Bottle Feeding	X			
C.	Public Education about children's nutrition	X			
D.	Commodity support for milk stations	X			

SOCIAL PROTECTION

A.	Budget support for ministry	X			
B.	Food support for internats				X
C.	Food support for canteens				X
D.	Budget support for home visitors	X			
E.	Budget support for Red Cross/Crescent	X			
F.	Technical assistance				
	Privatization of services	X			
	Budget management/Indexing	X			
	Management of donated funds		X		
	Health Insurance		X		

HEALTH

A.	Children's health				
	Immunization		X		
	Vaccines	X			
	Cold Chain	X			
	Promotion of breast feeding	X			
	Local production of weaning foods	X			
B.	Pre-natal care	X			
C.	Post-natal care	X			
D.	Iron & Vitamins	X			
E.	Women's reproductive health	X			
F.	Family planning services		X		
G.	Contraceptive devices	X			

SECTOR SUMMARIES

HUMANITARIAN ASSISTANCE NEEDS

IN

CENTRAL ASIA

AGRICULTURE SUMMARY

Overview:

Although the agriculture sector in Central Asia faces both short-term and long-term difficulties, it has significant potential. Under the Soviet system, the Central Asian countries focused on exporting a few unprocessed commodities, primarily cotton, tobacco, and wheat. All of these countries have the capacity to diversify and expand agricultural production; they may even achieve food self-sufficiency if they make the right choices. However, one major obstacle to reaching this goal is the high birth rate in the area, particularly in Uzbekistan.

For over a century, cotton has been a mainstay of the agricultural system in Central Asia. (Cotton is the main crop in Tajikistan, Turkmenistan, and Uzbekistan; tobacco in Kyrgyzstan; and wheat in Kazakhstan. Wheat is usually the secondary crop in Central Asia, and maize ranks third in most republics.) Uzbekistan alone accounts for approximately 60 percent of the cotton production in the former Soviet Union (FSU). However, large-scale cotton production has taken its ecological toll on Central Asia. The expansion of irrigation has overtaxed water supplies, created serious soil-salinity problems, and contributed to the reduction in size of the Aral Sea and other natural reservoirs. Heavy reliance on fertilizers and pesticides has wrought havoc with the land, and both surface and subsurface water supplies throughout the region are heavily polluted by agrochemicals. The total impact has yet to be determined, but major changes in agricultural practices must take place soon if the environment is to be restored. At the same time, cotton is no longer as profitable as it once was.

These problems suggest that a shift away from the cotton monoculture in Central Asia would be wise. Critics of the cotton monoculture have long advocated a reduction in production, both on environmental grounds and as a means of becoming less dependent on cotton exports. Government agricultural planners in cotton-producing republics have been demanding these changes for years, and many observers had predicted that independence from the USSR would bring about a major reorientation in agricultural production. But other planners see cotton as the best way to earn foreign exchange or to participate in the bartering arrangements that are currently under way among the former Soviet republics. Therefore, each cotton-producing republic wants to expand the amount of land planted in cotton and/or increase its yield. In Tajikistan, for example, the government plans to maintain cotton production at the current levels and increase grain production by converting the foothills at the base of the mountain ranges to farmland; the foothills are currently used for

cattle grazing. In Turkmenistan, the government hopes to increase production by further intensifying cotton cultivation.

The republics are not only perplexed about *whether* to reduce their dependence on cotton, but *how* to do so. In the short term, governments will have a difficult time converting to other crops. Grain production in Central Asia requires acclimated seeds as well as equipment that is not currently available, adequate grain storage facilities that have yet to be built, and agricultural inputs that are not now on hand. For example, agricultural chemicals -- herbicides, pesticides, and fertilizers -- which were previously imported in large amounts, may be difficult to get. In addition, the price of fertilizer this year is expected to be considerably higher than last. Even if other crops were more profitable, cotton is likely to continue to predominate, at least in the near future.

Livestock, primarily cattle and sheep, also play a large role in the agricultural sector. All cattle appear to be combination milk-beef breeds, resulting in less-than-adequate production of both products. Milk production, for example, can be as low as 2.5 liters per cow per day. This is apparently caused not only by the breed of cattle used but by the absence of chlorophyll in cattle feed. A simple addition of alfalfa pellets to the cattle diet could increase milk production by 20 percent. In Turkmenistan and Uzbekistan, milk yields increased notably after another chlorophyll-rich substance, lucern, was substituted for alfalfa. Egg production in many republics was also low because farmers were unable to obtain poultry feed, much of which had been previously imported from Ukraine and Russia.

Pastures and grasslands have been poorly tended in the past. Yields of grassland lagged behind those of similar topography and soils in other parts of the world. There is substantial room to improve the quality of range lands as well as the quality of locally produced roughage feeds.

Essential veterinary supplies are in short supply. Not only has domestic production dropped, but reduced trade between countries in Central Asia and those in Eastern and Central Europe has adversely affected imports of veterinary supplies. However, most essential supplies will be available for the next year. Items likely to be in short supply include antibiotics, inputs for vaccine preparation, and drugs for treatment of internal and external parasites.

All the republics cover their food needs through a combination of local production and barter/trade arrangements with other countries, both inside and outside the FSU. With the exception of Kazakhstan, which is a major grain exporter, the Central Asian republics import large amounts of grain for human

and animal consumption. Uzbekistan depends more heavily on trade to obtain essential food than the other republics, importing 75 percent of its grain requirement. During the current period of economic disruption, some of the republics may have problems meeting their grain needs.

Several major agricultural issues that have long-term implications for the wealth and stability of the area are confronting the Central Asian republics:

- Development of food-processing capacity at local, regional, and national levels
- Enhancement of storage, handling, and transport capacity for meat, dairy, grain, and vegetables
- Development of plans for privatization that maximize productive capacity without exacerbating existing ethnic tensions
- Diversification and expansion of agricultural production toward greater food self-sufficiency as well as wider export potential
- Improvement of milk production and distribution through enhanced feeds and introduction of new processing methods
- Development of alternative methods to such existing environmental hazards as overuse of hybrids and defoliants and salt contamination from open channel irrigation

Irrigation:

All the republics face the problem of limited water supplies, and most rely heavily on irrigation. High salt content in the water from the mountains, which is used for irrigation, has led to heavy salination of soils and decreasing available arable land. Conditions are particularly bad in Uzbekistan and Turkmenistan, which have large areas of barren, snow-white fields. The installation of drip-irrigation systems could reduce the problem, but few republics are seriously addressing this issue. (The Israelis, however, have helped install a drip-irrigation system on at least one farm in Uzbekistan and reportedly increased cotton yields by 25 percent.) In Uzbekistan, the evaporation of the Aral Sea and the contamination of other water sources may force three million people in the nearby region to abandon their homes. Drought is also a threat. In 1991, Kazakhstan suffered a 58 percent reduction in yield per hectare due to drought. [This drop in wheat production affected the other republics in the Commonwealth of Independent States (CIS) that normally import grain from Kazakhstan.]

Processing and Storage Facilities:

Processing facilities for all agricultural products are in short supply in every republic. Under the old system, the Central Asian republics exported nearly all their raw materials to Russia and were compelled to re-import their own products in the final state.

Inadequate storage capacity is a big problem across Central Asia. In the centralized economy of the Soviet Union, little storage space was needed, since all crops were sent to Russia for processing. Now the lack of storage facilities prevents farmers and grain merchants from holding their stock to capitalize on higher prices later in the year. Nevertheless, Kazakhstan and Turkmenistan will likely hold larger portions of grain than they did before the dissolution of the USSR. Since storage facilities are inadequate, grain losses will probably increase. When storage problems are combined with the shortage of processing plants, a republic's ability to control its products and foster an effective free market is limited.

1991 Production:

Total agricultural production in Central Asia was normal or below normal in 1991. Drought was responsible for a decrease in production in Kazakhstan and Kyrgyzstan. Decreasing yields in many Central Asian republics may result from increased soil salinity, a growing problem in many republics; the continual use of hybrids; and, in the cotton states, the extensive use of defoliants that cause ecological damage. Large harvest losses in republics such as Kazakhstan and Uzbekistan -- where 40 percent of all vegetables are lost in storage and transportation -- limit the efficiency of the market.

1992 Expectations:

All Central Asian republics have high expectations for the 1992 harvest; however, government plans almost always outdistance results. All the wheat-importing republics are hoping to increase their grain production and move closer to self-sufficiency. Turkmenistan, for example, plans to irrigate more land and use a higher yield wheat seed. Tajikistan is planting range land in the foothills in wheat, hoping to produce up to 50 percent of its needs this year, although it is not likely to succeed. According to the World Bank report, "Review of Food Policy Options and Agricultural Sector Reforms," long-run climatic data indicate the chances of repeating last year's drought in eastern grain areas is about one in ten. Reports so far this year indicate that most weather conditions are normal in the Central Asian states.

Turkmenistan is the only Central Asian country that admits to having grain reserves (one year's worth); it is unclear whether the other republics have reserves.

Trade and Exports:

Most products are still sold under the old system, where the state buys virtually all the harvest at a set price and distributes it to state stores or exports it. This year, farmers can sell up to 30 percent of their harvest to other buyers, although in most cases there will be few alternatives to the government.

The FSU continues to be the main recipient of exports, and trade within the Central Asian republics is active. Kazakhstan, for example, supplies Tajikistan and Kyrgyzstan with nearly all their grain needs. Some officials, however, complained that the cost of crossing international borders was heavy, and agriculture officials in Uzbekistan also reported that organized criminal activity at the Uzbekistan border resulted in high losses. The Central Asian republics are exploring new markets -- although few have developed to date -- and expanding old ones outside the FSU. Turkmenistan, for example, exported cotton to Turkey and Iran in 1991, and Uzbekistan has a cotton-for-wheat agreement with Canada for 1992. Certainly Kazakhstan and Turkmenistan will continue to explore alternative markets for their grain and are likely to attempt to hold larger portions of the harvests in their countries as long as the ruble remains unstable. This redirection of trade in basic commodities means that all Central Asian republics could experience an interruption in inter-republic food trade and, therefore, increased food shortages.

The majority of trade within the CIS was in rubles in 1991 and will be again in 1992. Officials from most of the FSU recently signed a trade agreement allowing equal trade between countries on a tax-free basis. For example, Turkmenistan can export R1,000,000 of cotton to Kazakhstan tax-free and in exchange, Kazakhstan can return R1,000,000 in meat, also tax-free. It is not clear which country sets the price. Countries exporting finished products will have an advantage over those with raw materials, as will countries with lower costs of living. Because hard currency is essential for imports from outside the CIS, most republics are concerned with finding hard-currency markets for their exports. Consequently, all the Central Asian republics are seeking hard-currency exchanges with foreign countries, and other CIS republics are also likely to be required eventually to pay in hard currency.

The price of cotton -- the main crop in three out of the five republics -- has recently dropped, while the price of grain has increased, creating a trade imbalance in these republics. Nonetheless, Uzbekistan and Turkmenistan are planning to

intensify cotton production. The development of marketing systems and an understanding of international trade, pricing, and finance are key to the success of the free-market economy in the republics.

In addition, a trade regime such as the one evolving at present could have serious adverse consequences on food production and distribution. Bartering harvests for inputs is especially problematic, since the loss of access to potential markets for farm output limits consumer access to food in other non-trading republics. Trade among states based on consumer demand, rather than on import needs, would be a better way to rationalize trade and bring efficiency into the food distribution system.

Privatization:

Kazakhstan, Kyrgyzstan, and Uzbekistan are the only Central Asian republics to begin to privatize agricultural land. Kyrgyzstan has had remarkable success with private farms in one area -- yields increased significantly -- but the overall experience in the country has been mixed. Neither Turkmenistan nor Tajikistan has any private farms, and neither are close to launching the privatization process.

An attempt by the Kyrgyzstan government to privatize a state farm led to armed confrontation in June 1990. Other similar incidents may occur as different ethnic groups realize the implications of land ownership and begin fighting for a piece of the pie. Tensions may rise in the Fergana Valley -- a fertile but heavily populated region divided among Uzbekistan, Kyrgyzstan, and Tajikistan -- and other areas where large numbers of people will have to divide small amounts of land.

Inputs:

All the Central Asian countries have fodder shortages and require imports. Most seeds should not be a problem. However, farmers indicate shortages of high-quality hybrid-corn seed could occur. Pesticides and fertilizers are also being supplied largely from within the CIS. (No single republic in Central Asia is self-sufficient in the production of all fertilizers.) Nitrogen and potash fertilizers can be obtained from other CIS member states, but the former Soviet Union could not produce enough phosphate in the past and imported some each year. Because the price of fertilizers has increased considerably, many net importers are cutting back on their consumption this year. Kyrgyzstan, for example, is planning to reduce its fertilizer imports by 50 percent and rely, instead, on animal manure. Cotton defoliants are also in short supply in some republics, but agriculture officials in every republic except Tajikistan are confident they can obtain them in sufficient quantities. Central

Asian farmers are convinced that farms do not have high priority for fuel supplies and are therefore concerned that they may not be able to locate and purchase fuel after the scheduled price rises.

Technical-Assistance Recommendations:

It is recommended that the U.S. government fund consultants who can provide the Central Asian republics with technical assistance:

- To help plan agricultural restructuring -- especially diversification of monoculture systems (e.g., cotton versus grain production)
- To help improve irrigation techniques (e.g., training in drip irrigation and soil and silvaculture assessment)
- On ecological issues (e.g., overuse of hybrids and cotton defoliants as well as salt contamination)
- To help plan national food-processing strategies, including:
  - National-level food processing (e.g., grain milling) based on comparative advantage and market analyses
  - Development of small enterprises to support home processing and storage
  - Establishment of regional cooperative ventures for major crops (e.g., a cotton syndicate)
- In price structuring for exports and internal consumption
- In developing new small-scale agricultural enterprises to increase the private base
- In structuring and expanding emerging commodity markets
- In developing realistic national and on-farm grain storage strategies and approaches
- In organizing private-sector food transport for exports
- In refrigeration-chain planning for meat and dairy products
- In meat processing
- In feed selection in conjunction with agricultural planning (e.g., corn)

- To increase milk production (e.g., through alfalfa production)
- To produce heat-stable milk
- In livestock breeding and selection of appropriate herds

ENTITLEMENT SUMMARY

As is the case in some other parts of the FSU, food is readily available in markets and stores in the Central Asian republics. Most of these countries produce an ample supply of fruits and vegetables and obtain their grain supplies through a combination of barter and trade. The issue is price, not supply. Families with many children and people living on fixed incomes cannot afford to buy the food they need. In Central Asia, the latter group mainly comprises Russians and other Europeans. The indigenous Central Asian ethnic groups traditionally take care of their own people through extended family and communal networks. As a result, Russians and other Europeans disproportionately benefit from the social services offered by the national and local governments.

Many of the national governments in the region have publicly committed themselves to provide for all those in need, regardless of their ethnic origin. However, as continuing economic disruption forces the Central Asian governments to limit support to the most vulnerable sectors of the population, indigenous communities may begin to resent the resources spent on Europeans. In addition, most of the countries in Central Asia are dependent on trade and barter arrangements for grain, processed foods, and other food commodities they cannot produce. If these arrangements are disrupted by hard-currency shortages, outbreaks of ethnic conflict, or disagreement between neighboring countries, pockets of food shortages and malnutrition could result. The U.S. government should continue to monitor health and welfare indicators in Central Asia, in case emergencies do arise.

Food Availability:

Most basic foods are available in the markets or through state stores. Meat, vegetable oil, sugar, butter, rice, and flour are all rationed in one or more of the republics. Coupons play a major role in food distribution. Every family receives a pack of coupons that enables them to purchase certain commodities at fixed, subsidized prices. Every family receives coupons for basic commodities such as meat, butter, and even matches. The coupons are not time-limited and can be accumulated for future use if a commodity is not immediately available.

A second type of coupon is similar to U.S. food stamps. Certain categories of people, such as pensioners, automatically receive them, and people whom the Ministry of Social Protection deems to be in need are also issued a quantity based on the size of the family. The coupons can be used in any government-owned cafeteria or canteen (*stolovaya*).

As mentioned above, the family-support system for people of Central Asian backgrounds is strong. For elderly people from Russian and European backgrounds who do not have good support systems there are other options, including home delivery of meals by government social workers and Red Crescent assistants and free or subsidized meals at designated *stolovayas*, using the coupons described in the previous paragraph. In Turkmenistan, pensioners and invalids have access to one-stop shopping in special state stores that have first priority on food and other goods supplied by the Trade Ministry.

Individuals supplement the food they get through these channels a number of ways: many people cultivate gardens, selling some of the produce and keeping the rest. In rural areas, families keep poultry, cows, and pigs and similarly sell some of the animal products in the market, while keeping some for their own consumption. People living in rural areas often share food with their city cousins. Mothers can obtain milk products for their infants and young children through milk kitchens paid for by the government. Previously, all Soviet school children were given breakfast at school; however, with the recent price increases and the breakdown of the Soviet system, it is unclear where funding for this program will come from and whether it will continue.

Compared to other parts of the FSU, there are relatively few people living in institutions in Central Asia. The residents of these institutions are mainly non-Asians who fall into the following categories: invalids, veterans, orphans, and mentally or physically handicapped people. Because the government puts such a high priority on institutions, residents at institutions are guaranteed adequate food supplies.

Cost of Living:

In Central Asia, as elsewhere in the FSU, incomes in general and pensions in particular are not keeping up with prices. In early January most prices were liberalized, and most controlled prices, including staple foods, were increased three to five times. On April 1, a second price liberalization took place. In an interesting twist, some prices in Uzbekistan appear to have gone down as a result of the April 1 liberalization. Information concerning price levels in the other republics after April 1 was not available.

In Turkmenistan, Ministry of Social Protection officials estimated that the monthly cost of food per person had increased over 300 percent in 1991. As is the case in Russia, in Central Asia the minimum monthly pension before the April adjustment was approximately R340 a month. Two of the Central Asian republics reported that they would raise pensions to over R500 a month to

compensate for the price increases on April 1: Uzbekistan to R550 a month, and Kyrgyzstan to R600 a month.

A recent UNICEF assessment (dated from before the April price rise) estimated that 85 percent of the people in Kazakhstan needed help in obtaining food and that people on fixed incomes were spending 90 percent of their budgets on food. An informal survey in Bishkek, Kyrgyzstan, suggested that individuals there were spending over 80 percent of their income on food. The assessment team found that in March the cost of living in Tajikistan was estimated to be 15 percent higher than the lowest pension.

These figures reflect the general truth that pensions and salaries have lagged behind prices and that people are devoting a large part of their resources to covering basic human needs, such as food. Even with indexation, pensions will continue to be insufficient. At the same time, governments are finding it difficult to pay the higher pensions (see the "Social Protection Summary" for more information). During this period of economic disruption and temporarily dwindling resources, the Central Asian republics will have to carefully target their support to the most vulnerable populations. The whole social welfare system is extremely stressed, and how it will weather the coming storm is unclear.

NUTRITION SUMMARY

Overview:

Available health and nutrition data do not suggest that the recent economic and political changes in the CIS have produced a nutrition emergency in Central Asia. However, with the exception of Kazakhstan, the Central Asian republics are net importers of up to three-fourths of their national grain requirements, and it is likely that food shortages in certain food groups will arise in the four food-deficit republics. In the long term, the Central Asian republics are looking at transforming their cotton monoculture into food production. In the intervening period, a monitoring and surveillance system will be needed to identify those in greatest need and to target interventions.

There is currently no detectable protein malnutrition among the population. However, health officials report an increase in specific nutrient deficiencies and point to other indicators that may represent early signs of a developing nutritional crisis. Economic and social data suggest that certain groups in the population are at nutritional risk, notably children, pregnant women, and the elderly.

Children:

Anthropometric data on children under five is not routinely collected in Central Asian republics. Health facilities (polyclinics and Feldsher posts) generally maintain good child health records, and all children up to two years are weighed regularly. Prevalence of malnutrition is reported to be low. Health officials report 5 to 10 percent of children are below 75 percent weight-for-age (Gomez classification for moderate and severe malnutrition).

Health officials suggest that the following current trends and indicators point to the likelihood of increased malnutrition among children in the near future:

- *Increases in infectious disease and decreased food intake.*

  The association between infection and malnutrition is well documented. The principal causes of morbidity and mortality among children in the Central Asian republics are acute respiratory infections (ARI), diarrheal diseases, and tuberculosis. ARI (including pneumonia) are the leading cause of mortality, and diarrheal diseases are the second major cause of death. Health officials in Kyrgyzstan, for example, reported a

sharp increase of the number of "weak" children (failure to thrive) presented at polyclinics. This is attributed to a combination of infectious disease, dietary constraints, and a shortened period of breast-feeding. An epidemic of vaccine-preventable diseases, such as measles or TB, may severely affect the nutritional status of children. The cessation in the supply of measles vaccine from Russia and a shortage of BCG vaccine are therefore cause for concern.

- *Increases in specific nutritional deficiencies.*

  The most prevalent nutritional deficiencies are anemia and calcium/vitamin D deficiency. Nutritional anemia among infants is common (35 to 40 percent) and in some areas is said to be increasing due to dietary constraints. Up to 60 percent of children reportedly suffer from a combination of vitamin D and calcium deficiency. Rickets is not uncommon. It is also likely that many children have undetected micronutrient deficiencies.

  Iodine deficiency is rarely a problem and salt is iodized. Goiters are still reported in some isolated mountain regions.

- *Shortened duration of breast-feeding and increased use of infant formula.*

  Breast-feeding is inadequately promoted. Ministry of Health (MOH) data show the average duration of breast-feeding is four to eight months; however, the breast-feeding period in reality is probably much shorter. The increase in the fertility rates is related to the loss of the protective effect of breast-feeding on postpartum amenorrhea. The wide use of infant formula exacerbates the situation. In addition, formula -- which is often mixed with contaminated water -- can contribute to infant morbidity and mortality. Reports in Turkmenistan, for example, indicated that a large number of children under nine months were dying as a result of misuse of infant formula.

  The decline in breast-feeding in some areas is reportedly associated with ecological problems. In the Aral Sea region of Uzbekistan, mothers have been advised against breast-feeding because their breast milk is believed to contain toxins. However, the link between the environment and health has not been clearly established.

- *Insufficient funds to maintain child-feeding programs.*

A network of milk kitchens operates in all the republics and covers 40 to 60 percent of the children from birth to three years. In Kyrgyzstan, for example, there are 150 kitchens serving 100,000 children. The kitchens are located in polyclinics and about 70 percent of state and collective farms. The MOH estimates that although a cost of R54 was planned per child in 1991, the actual cost was increased to R104 in January 1991, and this was expected to increase to R1,800 after the April price increases. Subsidized feeding programs are also provided in pre-schools and primary schools. Insufficient funds for milk distribution programs are limiting coverage and effectiveness and placing infants and school children at increased nutritional risk. Dried milk, which is normally imported from Russia, is now in short supply. The Japanese have recently donated 3 metric tons of dried skim milk (DSM) to the Uzbekistan Red Crescent, and the organization is awaiting a shipment of 17 metric tons from Turkey. The European Community has sent 100 metric tons of DSM to Turkmenistan. Nevertheless, officials say this amount is insufficient.

Maternal Malnutrition:

The mortality-rate average ranges from 0.4 to 1.1 per thousand. This is higher than many economically comparable countries. Anemia is a key problem. Reports indicate that 50 to 60 percent of women of child-bearing age have iron- and folate-deficiency anemia. This is due to frequent pregnancies with short birthing intervals, use of intrauterine devices, abortions, infectious diseases, and heavy workloads. However, the main reason for the high prevalence of anemia is reported to be an inadequate diet that is low in iron, folate, and other micronutrients associated with the absorption of iron, such as vitamin C. Prevalence of anemia and deficiencies of other minerals such as calcium are particularly high among pregnant women, and health personnel report an increase in low-birth-weight (LBW) babies, which is a reflection of poor maternal nutrition. Ten to 12 percent of the babies born in Central Asia are LBW (less than 2.5 kilograms at birth).

Primary emphasis is on cure rather than prevention. The common replacement practice for anemia is intramuscular injection rather than oral iron replacement.

In the past, pregnant women received dietary supplements, but this was discontinued in many cases, because funding was not available. The exception is Uzbekistan, where the president

recently announced that pregnant women would receive food supplements for 140 days during their pregnancy.

The Elderly:

The elderly are at high risk for nutritional deficiencies and, in some cases, hunger. The current minimum pension of R342 a month will purchase approximately 50 percent of the basic food commodities for an adult. It is inevitable that many elderly people will be unable to maintain an adequate diet, particularly since the Red Crescent has had to sharply cut many of its services to those living alone, such as Meals on Wheels. The people most at risk in Central Asia are non-indigenous groups such as the Slavs.

Recommendations:

It is recommended that the U.S. government:

- Provide full-cream milk (FCM): food assistance to Central Asia should include fortified FCM, which should be distributed only through hospitals and pediatric polyclinics. The milk should be consigned to regional health authorities for use only in preschool programs and milk kitchens. UNICEF is planning to provide DSM to the Central Asian republics, and efforts should be made to coordinate with that project. Programs to increase the duration of breast-feeding should not be undermined by distribution of breast-milk substitutes.

- Target the vulnerable groups: cash assistance to the Red Crescent is the most effective means of providing assistance to the elderly and other vulnerable groups at nutritional risk. The cash should be provided through monetization of food aid. In general, the U.S. Department of Defense rations were not well accepted by the elderly.

- Provide ferrous sulphate/folic acid tablets to women: it is strongly recommended that iron/folic acid tablets be provided for pregnant and at-risk women. UNICEF has supplied five million 60-milligram tabs. An estimated five million additional tablets are also required immediately (preferably 325 milligrams).

- Provide multivitamin/mineral preparations: given that deficiencies of micronutrients are likely to be widespread, multivitamin/mineral preparations should be provided for the elderly, children, and women.

Technical-Assistance Recommendations

It is recommended that the U.S. government fund consultants who can provide the Central Asian republics with technical assistance:

- To establish nutrition-monitoring systems for children under five years of age and for the elderly.
- To help establish nutrition-supplement programs for pregnant and lactating women, especially those who have had multiple pregnancies.
- For a surveillance system to monitor food and economic vulnerability through monitoring of prices and food stocks
- For developing programs to encourage breast feeding
- For milk/baby-formula policy development

SOCIAL PROTECTION SUMMARY

Overview:

Increasing populations combined with economic disruption have put enormous strain on the social welfare systems in the Central Asian republics. Despite some of the highest population growth rates in the former Soviet Union, governments in Central Asia continue to encourage mothers to have many children. All the Central Asian governments offer child support payments and some publicly honor women who have 10 or more children. Elderly people, especially those living alone, are the most vulnerable group in this region, as elsewhere in the former Soviet Union. Asian traditions require families and communities to look after each other; therefore, the numbers of elderly people from Asian ethnic groups who look to the state for assistance is limited. Consequently, Russians and other Europeans draw on state social welfare services in disproportionate numbers. Many of the national governments in the region have publicly committed themselves to provide for all those in need, regardless of their ethnic origin.

The Red Crescent, which is separate from -- but continues to work closely with -- the government in the Central Asian republics, plays an important role in providing services to the elderly. The Red Crescent chapters have sharply reduced staff and cut services in many areas because of shortages of funds. In at least one state, Uzbekistan, Red Crescent staff reported that elderly people were dying because of these cutbacks. To date, the Red Crescent chapters have provided a limited range of services, closely tied to the welfare ministries. Now that these societies are independent, they may begin to expand their activities.

The social welfare systems in the Central Asian countries are all based on the Russian social welfare model. Some observers speculate that the continued similarity in the assistance programs of the republics is the result of coordination between the governments in an attempt to limit population movements between the countries. Social welfare expenditures represent a large percentage of the national budget in each country. The republics are finding that maintaining the current high levels of support is difficult. As the transition to a free market progresses, unemployment numbers will sharply increase in the Central Asian republics, further draining state treasuries.

With the exception of Kazakhstan, the national governments are not actively seeking alternate means to fund and provide social support. Most of the officials working in the social welfare departments know little about financial management and

are unable to restructure their programs for a free-market economy.

Institutions:

There are relatively few institutions in the Central Asian republics, in part because the Central Asian communities take care of their elderly at home. Four of the five Central Asian republics have 10,000 or fewer people in institutions. These institutions house handicapped children, mentally ill children and adults, and elderly people. The government of Kazakhstan is especially concerned about the rising costs of maintaining these institutions and has been looking for ways to reduce costs. Voluntary contributions of food, clothing, and other supplies to institutions are reportedly increasing in every country.

Unemployed:

As elsewhere in the Soviet Union, the Central Asian republic governments have only recently begun to acknowledge that unemployment is a problem. Almost all of the Central Asian republics are facing dramatic increases in unemployment for the following reasons: privatization is closing some plants and enterprises and paring the number of employees in others, state farms are selling land and reducing employees, government offices are closing as local governments reorganize the structures inherited from the Soviet Union, and high population rates are resulting in large numbers of young people entering the work force every year.

In Kyrgyzstan, the Ministry of Social Protection estimates that the number of officially registered unemployed will rise to 100,000 from the current official total of 323. Tajikistan reports 500,000 unemployed workers. Uzbekistan expects that 1.8 million people will look for work in 1992; 240,000 will be unable to find work by the end of the year. [The assessment team was unable to obtain unemployment figures for Kazakhstan or Turkmenistan or detailed information on unemployment programs and benefits offered by the Central Asian republics.]

Government Plans:

All the Central Asian republics spend a large proportion of their budgets on social welfare, and most of them are expecting budget deficits on the order of R1 billion by the end of 1992. Demands on government budgets will increase over the next year as unemployment and inflation increase the rolls of those needing assistance. The Central Asian republic governments pay for social welfare through a combination of taxes, penalties, and private donations. Turkmenistan, Kyrgyzstan, and Kazakhstan all have imposed a one percent salary tax that is paid into the

pension fund. Turkmenistan, Kazakhstan, and Tajikistan have also reportedly levied heavy taxes on private enterprises.

Officials in the Ministries of Social Protection, which are responsible for social welfare programs, acknowledge the crisis, but have few new ideas to offer. Some are still relying on the old system to somehow produce the necessary funds. Most officials are ignorant of basic financial management principles. In Tajikistan, for example, the government has put the funds it has collected from private donors for social welfare programs into non-interest-bearing accounts. Training in financial management is badly needed. Kazakhstan is the only Central Asian republic that appears to be developing alternative approaches to funding and administering social welfare programs. One of its ideas involves the creation of a fund, based on voluntary contributions, for high-interest, short-term loans. The interest on the fund will be used to subsidize social welfare projects.

Technical-Assistance Recommendations:

It is recommended that the U.S. government fund technical assistance to the Central Asian republics:

- In planning for increased caseloads
- In managing privately donated funds
- To develop private social security insurance
- For program management & budgeting
- For developing job placement services
- For structuring and managing new unemployment benefits
- For developing ways to index cost-of-living increases in pensions and social security stipends
- To develop private-sector parallel support systems, including fund-raising techniques

NONGOVERNMENTAL ASSISTANCE SUMMARY

Overview:

The only indigenous or foreign NGOs active in the Central Asian republics are the Red Crescent and two other new NGOs that are beginning to coalesce in Turkmenistan and Kazakhstan. Because the government had always used the Red Crescent as an adjunct, the societies did not offer a full range of humanitarian services. Almost all of the national societies maintain this conservative approach, continuing to focus on serving the elderly. The Red Crescent continues to work closely with the Ministries of Health and Social Protection as well as local clinics to identify individuals who need help and to provide them with appropriate assistance. The Fund of Mercy, the Children's Fund, the Veterans' Fund, the Charity Fund, and the Goodwill Fund are funding channels set up by the government. They collect donations from individuals that the government uses for social welfare programs.

In Kyrgyzstan, Red Crescent officials estimate that 90 percent of their funds are spent on the elderly. Even with this emphasis, the Red Crescent in Kyrgyzstan is able to provide assistance to only 4,000 of the 10,000 eligible people. The Kyrgyzstan Red Crescent and the Uzbekistan Red Crescent are both limiting the services they provide because of budget constraints. The Turkmenistan Red Crescent has taken a creative approach to the economic crisis: it finances its activities through a voluntary R5 membership fee and by renting cars lent to it by supporters.

It is recommended that the U.S. government fund technical assistance in the Central Asian republics:

- To the Red Crescent (through the International Federation of Red Cross\Red Crescent)
- For a grant program for NGO development (via PACT or INTERACTION)
- For a grant program to U.S. NGOs to establish counterpart or spinoff organizations in the CIS

WATER AND SANITATION SUMMARY

Overview:

An especially critical public health need exists in Central Asia: pure drinking water and the sanitary disposal of excreta.

Diarrheal illness remains the most critical public health problem in Central Asia. It accounts for the greatest proportion of morbidity and mortality from infectious diseases, especially in Tajikistan and Turkmenistan. Caused by a variety of infectious agents, including *Salmonella* sp., *Shigella* sp., and many other parasitic and viral enteric organisms, diarrheal disease disproportionately affects infants and children, resulting in infant mortality rates in excess of 40 per thousand live births and significant morbidity, requiring extraordinary public health resource allocations. Elimination of much of this mortality and morbidity requires pure drinking water and the sanitary disposal of excreta for all of the population in Central Asia.

Technical-Assistance Recommendations:

It is recommended that the U.S. government technical assistance to the Central Asian republics:

- To address the problem of water and sanitation in Central Asia. (WASH, an AID-funded project, is one possibility)

COMMUNICABLE DISEASES AND IMMUNIZATION SUMMARY

Overview:

Immunization activities in the Central Asian States are not yet severely compromised, but vaccine shortages are already beginning to be felt or soon will be if consignments anticipated from manufacturers in the Russian Federation fail to materialize. Only officials in Kyrgyzstan appeared to realize that vaccine supplies were likely to be interrupted in the near future.

In each of the states, serious shortcomings were noted in the cold chain. While the overall cold-chain infrastructure was solid, with conceived strategies for distributing vaccine, there was uniformly insufficient equipment and, in some cases, knowledge, to carry out the strategies in a manner that would provide maximum protection to vaccines being stored and transported. This is a serious problem, since summer temperatures in the states routinely reach 40 degrees Centigrade or higher. Several state programs recognize the inadequacy of their cold chains during the hot periods of the year and therefore restrict or cease vaccination activities during this period.

The republics lack sufficient supplies of disposable syringes, although they have adequate supplies of reusable ones. The number of needles for these reusable syringes, however, appeared to be sub-optimal. Immunization program officials stated a clear preference for disposable syringes. But when supplies of these run out, the clinics switch to reusable ones. Sterilization procedures appeared to be adequate, although some clinics needed improved sterilization equipment.

Kyrgyzstan:

Kyrgyzstan -- a 200,000 square kilometer, mountainous republic -- has a population of approximately 4.5 million. The crude birth rate and infant mortality rate are, respectively, 29 and 30 per thousand.

Immunization coverage has dropped in recent years. The republic needs measles vaccine and possibly polio vaccine, but contracts with Russian manufacturers are expected to provide an uninterrupted supply of other vaccines. The MOH is prepared to return to reusable syringes because of a 15-fold increase in the cost of disposable syringes and the prospect of having to rely on unsustainable donor support. Disposable syringes and a limited number of steam sterilizers and cold-chain equipment should be supplied on an emergency-procurement basis.

Uzbekistan:

Uzbekistan has an area of approximately 450,000 square kilometers and a current population estimated at more than 20 million -- 50 percent more than the combined populations of Kyrgyzstan, Tajikistan, and Turkmenistan. The crude birth rate and infant mortality rate are, respectively, 33 and 38 per thousand.

Immunization coverage has risen in recent years but the possibility of a measles outbreak persists because of a measles vaccine stock-out which began in late 1991. Recent UNICEF-supplied measles vaccine will be exhausted by mid-summer.

Given its large population and high birth rate, Uzbekistan has major needs for cold-chain support, which will require considerable resources and a coordinated response from the international donor community to address. The World Health Organization (WHO) and Centers for Disease Control (CDC) might be able to play a significant role in tackling the problem of false contraindications.

Tajikistan:

Tajikistan comprises a mostly mountainous area of 143,000 square kilometers and a population of approximately 6 million. It is one of the poorer republics in the CIS. It has an infant mortality rate of 40 per thousand and a crude birth rate of 38 per thousand.

Immunization coverage is high, but vaccines are in short supply. Polio and measles vaccine (the latter from Pakistan) were received in March 1992, but even with these supplies, vaccinations can only be assured for newborns for about three months and only if the normal schedule of re-vaccinations is abandoned in favor of newborns.

A decent cold-chain infrastructure exists, but additional equipment is needed to make it function properly. Key personnel at all levels could benefit from the type of training designed by WHO.

Turkmenistan:

Turkmenistan has 488,000 square kilometers that are mostly desert and a population of approximately 3.8 million. The republic is relatively rich in natural resources, but the standard of living remains relatively low. The republic has an infant mortality rate of 45 per thousand and a crude birth rate of 30 per thousand.

Immunization coverage is generally high, although measles coverage has fallen considerably in recent years. This appears to be due to insufficient vaccine. The republic received a shipment of measles vaccine from UNICEF in March, which was enough to meet the needs of newborns for some six months if there is no wastage and if the cold chain can maintain the vaccine. Unless anticipated consignments of vaccine arrive from Russia, the program will likely face vaccine shortages for all antigens except measles in two or three months.

Other than Russian-made picnic baskets, the program has no vaccine transportation equipment -- a serious matter in a country where temperatures exceed 40 degrees Centigrade for four or five months of the year. Some cold-chain equipment is needed immediately to assure the safety of vaccines received. Personnel at all levels could also benefit from the type of cold chain training designed by WHO.

Kazakhstan:

Kazakhstan is a vast republic, second largest in the CIS after Russia, with a population of 16.6 million. Discussions with the Food and Humanitarian Assistance (FHA) assessment team in Kazakhstan and a review of available demographic and health-status data indicate that this republic is a less appropriate candidate for assistance than the other states.

Recommendations:

- That Kyrgyzstan, Tajikistan, Turkmenistan, and the Tashkent *oblast* of Uzbekistan be selected for assistance by the Emergency Childhood Immunization Support Program. This recommendation is based on the following factors:

  The size of Kazakhstan, and the population of Uzbekistan, make both states unattractive candidates since it would not be possible for the emergency effort to provide assistance to the entire national populations. It is clear that in each state national officials would be uncomfortable with assistance with restrictions that required them to favor one geographical area over another. It is also clear that compliance with restrictive use of the assistance would be difficult to assure.

  The relatively small national populations of Kyrgyzstan, Tajikistan, and Turkmenistan (a total of approximately 500,000 newborns per year) would allow for the funding available to cover the entire country instead of selected geographical areas.

All three states are in need of assistance. In at least Tajikistan and Turkmenistan there is the real danger of program cessation if additional vaccines are not received within the next several months.

- That specific vaccine needs be worked out for each of these states in coordination with UNICEF to avoid duplication and to assure that total vaccine needs are met for a one year cohort of newborns. This will allow each state time to get its own vaccine procurement arrangements in place and will do much to assure that on-going vaccination programs continue uninterrupted.

- That enough disposable syringes be shipped with vaccines that are provided to assure that all the vaccines can be administered with disposable syringes.

- That enough cold-chain equipment be provided to assure that vaccines shipped can be kept safe up to the time of administration. It may be necessary to provide vaccines in several staged shipments, given the uncertainty of keeping vaccines throughout the coming summer months.

- That well-qualified logistics and cold-chain experts be sent to each of the selected states prior to the arrival of vaccines to assure that minimum cold-chain requirements are correctly anticipated and met, and to procure additional materiel.

- That a well-seasoned resident EPI expert be assigned to cover the three countries to provide continuous technical guidance for the emergency effort.

- That modest numbers of steam sterilizers be provided to each of the states to meet short-term needs and introduce standard EPI technology to the national programs.

- That OFDA and R&D/Health (perhaps through REACH) communicate with UNICEF regarding the status of cold chains in the Central Asian republics. Statements by UNICEF officials regarding the adequacy of the cold chains in these states are not consistent with the findings of this team.

SUMMARY OF NATIONALITY AND MIGRATION ISSUES

Overview

According to 1989 census figures, approximately 49 million people -- about 17 percent of the population of the former Soviet Union -- live in Central Asia. Thirty-seven million people -- more than 75 percent of the area's population -- belong to traditionally Islamic nationalities. The rest are, among others, Russians, Ukrainians, Germans, Greeks, Koreans, Jews, Tatars, Armenians, and Azeris.

Most of the area that makes up present-day Central Asia was once part of an ancient Persian territory called Turkestan. Successive waves of invaders -- the forces of Alexander the Great followed by the Huns, the Arabs, various Turkic peoples, the Mongols, and the Uzbeks, yet another Turkic group -- left their mark on the area. The Arabs, for example, introduced the Islamic religion and culture in the seventh century A.D. The Russian invasion of Central Asia began in the 18th century with Peter the Great, and by the end of the 19th century, most of the area had come under Russian control. The Bolsheviks created the Turkestan Autonomous Republic in 1918 as a part of the Soviet Union, but in 1924-1925, Stalin abolished the autonomous republics and divided the area, more or less along ethnic and linguistic lines, into Uzbek, Turkmen, Tajik, Kyrgyz, and Kazakh regions.

The region's five titular nationalities have similar ethnic origins, histories, and religious beliefs. But regional and cultural differences exist. For example, the Tajiks speak a Farsi-based language, while each of the other nationalities has its own Turkic language. In addition, life-styles vary; they range from the Tajiks, who have been urban people since ancient times, to the Kazakhs, some of whom were nomads until the 1920s.

The first wave of Russians came to Central Asia to administer the tsarist government. Another wave arrived during the famine of 1920-1923. World War II brought still more Russians as well as other ethnic groups when large numbers of people fled to Central Asia to escape the invading German Army; other groups -- such as Germans from Volga and Koreans from the Soviet Far East -- were deported to the region. Near the end of the war, Stalin deported nearly three million additional people of various ethnic groups accused of collaborating with the occupying German troops. A fourth wave of Russian-speakers accompanied the large-scale construction of industrial and space complexes that began in Central Asia in the 1950s. According to the 1989 Soviet census, Russians account for 37.6 percent of the population of Kazakhstan, 21 percent in Kyrgyzstan, 6 percent in Tajikistan, 10 percent in Turkmenistan, and 8 percent in Uzbekistan. Many of the Russian-speakers hold skilled or

managerial jobs in industry and government, while indigenous populations fare less well.

Many Central Asians have a renewed interest in Islam after years of Soviet repression. In Tajikistan, for example, new mosques are being built and calls to prayer, previously barned by the Soviet government, can be heard everywhere. In Uzbekistan, *id-al-fatr* -- the end of Ramadan -- was celebrated as a national holiday for the first time this year. Tajikistan has both Sunni and Shi'ite Muslims, but few Shi'ites can be found in the other four republics. However, Iran and Saudi Arabia are battling each other to establish their versions of Islamic fundamentalism in the region. In Uzbekistan, for example, the Saudis are reportedly backing their conservative brand of Islam called Wahabism, which has attracted a small group of followers. Iran, on the other hand, is well regarded by most Tajiks; television shows are beamed nightly into Tajikistan from Iran extolling the culture of Iran and its model of progress.

But residents of all the republics -- including Tajikistan -- appear to be wary of Iranian fundamentalism. The leadership of the republics seems committed to the Turkish model of development, which includes democracy, a free-market economy, and a secular state. Nevertheless, many Russian-speakers in the area indicate they are fearful of the region's growing Islamization. But most observers believe the Russian-speakers' fears of fundamentalism exaggerate the situation, at least at this time.

Since 1989, each of the Central Asian republics has passed laws aimed at strengthening its indigenous culture and reducing the power of Russians and other nationalities. For example, civil servants in Kazakhstan, which adopted Kazakh as its official language in 1989, must master the language by 1994. Most Russian-speaking residents of Kazakhstan -- like the others Central Asian republics -- cannot speak the national language of the republic in which they live and seem uninterested in learning it. However, while some laws may appear to be aimed at pushing Russian-speakers out of the area, Central Asian officials have expressed concern that the loss of skilled personnel will adversely affect local economies.

Russian-speakers constitute the largest concentration of present and potential migrants from Central Asia. The exact number of people who have left Central Asia in recent years is unknown. But a survey conducted by the Institute of Ethnology and Anthropology in Moscow in 1991 indicated that a significant number had decided to leave the region. The number leaving ranged from a low of 11.4 percent in Kazakhstan to a high of 35.5 percent in Tajikistan. Several Russian-speakers in the area claim these percentages are low. So far, the predicted mass migrations have not materialized in every republic. (However,

approximately half the 40,000 Russians living in Andijan *oblast*, a part of the Fergana Valley in Uzbekistan, reportedly left in 1990 and 1991 after several violent ethnic clashes occurred in the region.) Conditions in Russia -- a serious lack of jobs and housing -- have kept many Russian-speakers in Central Asia.

Germans, Greeks, Crimean Tatars, Meskhetian Turks, Kurds, Chechens, and other groups that were deported to Central Asia have begun leaving the region now that they have a chance to do so.

The potential for ethnic conflict also exists among Central Asian groups. Kyrgyz and Uzbeks, for example, have clashed over the privatization of a state farm in the Osh region of Kyrgyzstan. Violent conflict between the two communities raged for five days, resulting in 20 or so deaths.

Although there have been several calls for unifying parts of Central Asia, nothing concrete has happened. (The leaders of the CIS have signed an agreement to honor current borders.) Tajik nationalists talk of unifying the Tajik peoples in the FSU. For now, however, that issue is a distant dream -- people are too preoccupied with the current economic conditions to seriously consider unification. Turkmen also have an interest in reuniting their people in one country. Recently, a Turkmenian nationalist group was established called the International Humanitarian Association of Turkmen, headed by the president of Turkmenistan. However, most Turkmen feel that the present borders are adequate.

Kazakhstan:

Russian discontent presents the greatest potential threat to stability in Kazakhstan. Small numbers of Russian-speakers have already left the area, apparently because they had the opportunity to do so, not because they feared an unfavorable situation. However, there is clearly potential for ethnic conflict. Unlike Kazakhs, Russians tend to live in urban areas or the northern extremes of the country, and they are disproportionately represented in technical and professional fields. Some Russian-speakers have suggested that the northern part of the republic should secede -- a move that could lead to civil war. Meanwhile, the government is attempting to assure the Slavic community that it has a place in the nation.

Other groups that were forcibly resettled in Kazakhstan -- including Germans, Greeks, Crimean Tatars, Kurds, and Chechens -- want to emigrate now, too. Of the 900,000 or so Germans in Kazakhstan, some 300,000 have already left and another 300,000 are considering leaving. National leaders are concerned that the exodus of Germans -- who run many of the most efficient farms -- could lead to a significant drop in agricultural production.

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Most of the approximately seven million Uighurs live in China, but 185,000 of them reside in eastern Kazakhstan. Their irredentist aspirations are of concern.

Small numbers of Russians and other Slavic peoples are reportedly moving into Kazakhstan from other Central Asian republics, notably Tajikistan. Small, but perhaps significant, numbers of Kazakhs are arriving from Mongolia, China, Turkey, and Germany. In addition, some 100,000 Meskhetian Turks, who were deported to Uzbekistan during World War II, left the Fergana Valley after a violent conflict there in 1989; 50,000 went to Kazakhstan. The Meskhetian Turks reportedly want to return to Turkey, but Turkey is unwilling to take them.

Kyrgyzstan:

Kyrgyzstan presents a potentially explosive situation, and a substantial out-migration of its two major non-Kyrgyz populations, Russians and Uzbeks, could occur in the event of inter-ethnic conflict.

The situation is exacerbated by the fact that the Kyrgyz are an economic underclass in their motherland. They have few agricultural or industrial skills and are vulnerable to a reduction in the already-shrinking government work force. Officials expect the number of unemployed to increase to 100,000 within a year, and most of those are likely to be Kyrgyz. Uzbek farmers and retailers in Kyrgyzstan are in a better position to take advantage of privatization in agriculture and retailing, while Russians are likely to obtain urban housing. Many of the 917,000 Russians in Kyrgyzstan hold skilled jobs and managerial positions in industry or work as agricultural technicians or managers.

Most of the approximately 580,000 Uzbeks in Kyrgyzstan live in the *oblasts* of Osh and Jallalabad and make up about 40 percent of the population there. (Many Uzbeks migrated to the area's fertile valleys after Moscow dictated an increase in cotton cultivation.) The rise of Kyrgyz nationalism and a rapidly changing economic situation have led to significant tension between Uzbeks and Kyrgyz. The privatization of a state farm in Osh mentioned above led to armed ethnic conflict. After ethnic Kyrgyz claimed land distributions favored Uzbeks, party leaders hastily overruled the existing allocations, enraging the Uzbek community. Uzbek out-migration from Kyrgyzstan could result in corresponding difficulties for the even-larger number of Kyrgyz in Uzbekistan.

already left. Their departure is leaving gaps in some sectors of the economy, particularly in engineering and mechanical repair.

Tajikistan:

Levels of out-migration from Tajikistan to date, except for Germans, have been low. The Germans who left Tajikistan mostly did so following the reunification of Germany. The latest census counted 15,000 Germans remaining, primarily in Dushanbe and in other cities where they hold technical jobs.

Many Russians and other European nationalities say they could also leave Tajikistan if the growth of nationalism and Muslim fundamentalism continues. Some Tajiks claim that Russia is encouraging this repatriation because residents of Central Asia "are considered less prone to alcoholism as a result of living in a primarily Muslim culture."

In spite of official claims that no tension exists between Uzbeks and Tajiks, the potential for conflict is noticeable. Several Tajiks said they believed that Uzbekistan is trying to "nationalize" the Tajiks living there. For example, Tajiks claim that Uzbek authorities have officially registered only one million of the eight million Tajiks living there as Tajiks. The rest carry passports that say they are Uzbeks. The Tajik nationalists also say that Tajik schools, newspapers, and radio broadcasts were shut down in Uzbekistan. (See Uzbekistan section below.) On the other hand, they claim, Uzbeks living in Tajikistan are well treated and have their own newspaper, radio broadcasts, and schools. If times get harder for Tajiks, they could vent their frustrations on the Uzbeks. The sheer number of Uzbeks in Tajikistan (who don't appear to be returning home) could offer a convenient scapegoat for the Tajiks.

In addition, fighting in Afghanistan has prompted an influx of Afghan refugees into Tajikistan. Some leaders of the National Liberation Party in Afghanistan have also sought refuge in Tajikistan as the Russian-backed government has lost ground. The Tajikistan government, however, is limiting the number of refugees, partly because of its own economic fragility and partly because of its fear of Afghan fundamentalism.

Turkmenistan:

Turkmenistan seems to have the fewest ethnic problems among the Central Asian republics. A relatively small number of Russians have already departed, but many more say they will leave if Islamic fundamentalism takes hold. They also feel threatened by the language laws and the obvious moves to fill more jobs with native people. Many German families say they are planning to leave and some have already done so. But the government is attempting to keep the Russians and others in the republic.

Turkmenistan is also seeing some in-migration. In the 1980s, the Soviet government encouraged Turkmen to move to the Far East, luring them with promises of houses and high-paying jobs. Many found poor working conditions, a lack of housing, reduced rations, and conflicts with local authorities over issues such as circumcision and burial rights. A substantial number of them have returned home and more are expected.

An unknown number of Afghan refugees arrived in Turkmenistan in recent years. (Their presence was officially denied and they were listed as "students.") More refugees could come if the current regime in Afghanistan falls.

In addition, Turkmenistan is experiencing internal migration. An increasing number of rural Turkmens are moving to the capital, while others are moving to oil-field towns looking for work.

Uzbekistan:

Despite outward declarations of goodwill, both Russians and Uzbeks openly acknowledge the tension between them. Uzbeks are resentful of the years of domination under Soviet rule; Russians fear exclusion, loss of power, and the increase in Islamic traditions. As a result, many Russians are leaving Uzbekistan. Demographers estimate some 35,000 to 40,000 Russians have left each year since an ethnic clash in 1989, and the number departing has increased since the breakup of the Soviet Union. The ethnic conflict occurred in the *oblast* of Andijan when a football team failed to appear for a scheduled match. The disgruntled fans then torched 20 homes belonging primarily to wealthy Russians and Armenians. Russians who remain in Andijan say they have lost jobs because they couldn't speak Uzbek, but non-Uzbek speakers officially were given 10 years to learn the language.

The Russian-Uzbek tension has potential for further conflict. There are still approximately 1.5 million Russians in Uzbekistan, half of whom live in Tashkent and comprise about 44 percent of that city's two million people. Although the current situation is stable, there appears to be enough resentment between the two so that even a small incident could trigger open ethnic conflict. A worsening economy, privatization, unemployment, disputes over water rights, and Islamic fundamentalism can only exacerbate this tension. For example, the Russians' technical skills largely shield them from layoffs, while the growth rate of the Uzbek community is producing large and increasing numbers of new entrants into the labor market.

The rising sense of Uzbek nationalism has also led to several clashes with non-Uzbek nationalities, notably Meskhetian Turks and Kyrgyz, and has contributed to non-Uzbek emigration

The rising sense of Uzbek nationalism has also led to several clashes with non-Uzbek nationalities, notably Meskhetian Turks and Kyrgyz, and has contributed to non-Uzbek emigration from the republic. The main issue affecting Kyrgyz-Uzbek relations to date has been land distribution in the Kyrgyzstan *oblast* of Osh. (See Kyrgyzstan section above.) Violence broke out in Fergana between Uzbeks and Meskhetian Turks in May 1989, allegedly over a dispute at the market. Five people were killed, and the riots ended only when the Soviet military airlifted 30,000 Turks out of the area into Russia. In all, 98,500 Turks left the valley and few remain.

An additional problem involves Tajiks and Uzbeks. Most Tajiks in Uzbekistan live in the Sirgania, Samarkand, Sukhand Daria, Dernes, and Bukhara *oblasts,* making up 50 percent or more of the population in some of these areas. Officials in Tajikistan claim that Tajiks in Uzbekistan are oppressed. (See Tajikistan section above.) Tajikistan has reportedly demanded joint governance of Samarkand and Bukhara and, rebuffed on this issue, has refused to sign with Uzbekistan a Central Asian republics memorandum of understanding to respect existing borders and guarantee minority rights within each republic. In fact, many of these charges had a basis under the former Soviet regime, but generally no longer appear to apply.

Seeking to remedy perceived historical abuses, two Tajiks began a hunger strike in a Samarkand tea house last summer and a Samarkand university professor called upon Tajiks in that city to rise up against oppression. Uzbekistan moved quickly to undercut any popular support the three men may have sparked, establishing a commission made up of journalists, lawyers, and the Tajik intelligentsia to deal with Tajik issues. Tajiks were immediately given the right to amend the nationality described in their passports, several Tajik language schools were opened in Samarkand and Bukhara, a Tajik language newspaper was established in each city, and extensive Tajik-language television and radio broadcasts were initiated. In the event, there appeared little support for any form of Tajik irredentism.

In addition, severe ecological problems are decreasing the population in the Karakalpac Autonomous Region by about 20,000 per year. (Some 350,000 people -- roughly equal numbers of Uzbeks, Karakalpacs, and Kazakhs -- live in this region in western Uzbekistan.) Using the waters of the Amu Darya River for irrigation has caused the Aral Sea to dry up. If the salt infiltration problems and other ecological dilemmas are not resolved, the remaining Karakalpac population will have to be moved to the east.

OTHER RECOMMENDATIONS

It is recommended that the U.S. government fund technical assistance to the Central Asian republics:

Public Health:

- For public health planning -- CDC/IRC/PHI
- For redefining and expanding maternal/child health (MCH) programs (UNICEF/AID)

Democratization Issues (related to development and nationalities questions):

- To help develop pluralistic party structures
- To help develop equal access policies for privatization of existing government-owned enterprises
- To help develop strategies for increasing the ethnic mix in the ownership in industries avoiding the use of quotas

Privatization:

- For new, small-enterprise development (see nutritional issues)
- For land-use planning prior to privatization of land (especially near urban areas)
- For planning marketing strategies for private farms
- For small-enterprise management and debt control
- For establishment of private thrifts (savings-and-loan associations, co-ops, Grameen Bank-like lending schemes)
- To help countries develop on-lending strategies for new central banks (to help capitalize thrifts)

SPECIAL CONCERNS

HUMANITARIAN ASSISTANCE NEEDS

IN

CENTRAL ASIA

THE ISSUE OF NATIONALITIES IN PRIVATIZATION

The single most important factor relating to political stability in Central Asia is economic reform. The old, centrally directed economies simply cannot continue in the wake of the dissolution of the Soviet Union. Yet there is one major obstacle to privatization that is affecting both decision-making and progress in this vital activity: the issue of nationalities and, more specifically, which national groups would be likely to acquire dominance in each of the productive sectors that are to be privatized.

By both design and default, Soviet policies in the last half century have resulted in major disparities in the makeup of the work force in rural and urban sectors. In every Central Asian republic, with few exceptions, the titular nationality occupies and works the land. People of Slavic origin, especially Russians, predominate in the urban work force and provide most of the managerial personnel in the industrial, commercial, transportation, and service sectors. Thus, if privatization were to occur today under the guidelines being considered in Russia and other republics -- those working in an industry or enterprise are given priority to purchase the enterprise -- Russians and other Slavic groups would end up controlling industry and business, while the local people would get the farms and much of the rural and agricultural business.

The problem is most acute in Kyrgyzstan. If privatization were to occur today, Russians would control the industry, Uzbeks would own most of the fertile farmland, and the Kyrgyz would work in mountain agriculture and livestock grazing.

Efforts to rectify these disparities will undoubtedly exacerbate ethnic tensions. In Kyrgyzstan, for example, the government has passed a resolution that Kyrgyz must have 50 percent ownership of all industries that are privatized -- a move that would automatically devalue the interests of large groups of workers who have spent their adult lives in industrial and agricultural enterprises. Minority communities are interpreting such moves as discriminatory, and they are likely to cause much resentment in the future.

The U.S. government can help resolve these issues by carefully placing aid and by stimulating new private-sector initiatives through AID's small business development programs. AID can discreetly focus on increasing business opportunities for the titular majority and help diversify the commercial base through new development. This is a major opportunity since most of the current talk about privatization in these new republics concerns the sale of existing enterprises; the governments are not focusing on developing new enterprises to create employment

and fill the gaps in the service sector. The United States and other donors must move quickly in this regard while the climate for privatization is still stable and open.

It is clear that linking aid to privatization before these issues are satisfactorily resolved could have a negative impact politically and heighten ethnic tensions.

THE PROBLEM OF FUEL

Shortages of gasoline and diesel fuel are likely to increase in Central Asia in the near future. In several countries, for example Tajikistan and Kyrgyzstan, waiting lines at filling stations are getting longer, and Tajikistan is rationing gasoline and diesel. The sector where fuel shortages are likely to be felt most severely is agriculture.

Technically there is no shortage of fuel in the region. Kazakhstan, Turkmenistan, and Uzbekistan are all energy producers. Furthermore, large oil reserves are found in Azerbaijan. Yet, those countries lack refining capacity and are likely to be exporting more at world prices to accelerate development in their own countries. This leaves Tajikistan, Kyrgyzstan, and, to a lesser extent, Uzbekistan in the position of having to either pay in hard currency or barter against hard-currency value for the petroleum that they need. Unfortunately, the products that they have to barter with -- cotton and tobacco -- are not in great demand since the other Central Asian countries also produce large quantities of those commodities. And none of those countries currently are processing the commodities internally. Bartering cotton for fuel oil will be especially difficult.

INFANT FORMULA ISSUES

The number of children under the age of nine months who are dying each year in Central Asia is alarming, especially when the mortality rates for those infants are disaggregated from the already high infant-mortality rates for the total under five population. For example, in Tajikistan, the number of infants dying under the age of nine months represents 67.2 percent of the total infant mortality. What is alarming about this statistic is the fact that under-nines should be the group with the lowest mortality rate; children in this age group are normally breast fed and are thereby assured of adequate nutrition and usually have lower diarrhea rates.

The high infant mortality can be directly attributed to two causes: poor sanitation and hygiene practices and the use of infant formula as a substitute for breast feeding. In-home sanitary conditions, especially in the rural areas, are appalling, and few mothers are cognizant of basic hygiene practices. In this environment, bottles and rubber nipples are rarely properly sterilized and contaminated water is often added to the formula, producing high diarrhea rates. It is not surprising that infant mortality rates are high.

Few government or public health officials recognize the problem. In recent humanitarian operations, local public officials presented wish lists that gave high priority to infant formula, and American officials in charge, without understanding the implications, have initiated procurement from American sources. It is strongly recommended that all procurement of baby formula cease and that deliveries of dried skim milk (DSM) be restricted to organizations with a demonstrated capacity of preparing and distributing the milk under sterile conditions. No organization should be permitted to randomly distribute or sell DSM.

FAMILY PLANNING, ABORTIONS, AND MATERNAL HEALTH

Birth rates in all Central Asian republics are alarmingly high. Average family sizes are large, and the women in child-bearing ages experience a disproportionately high percentage of maternal-related health problems. It is not unusual to find families that are having children annually, and there are many instances of women bearing two children in one calendar year. Central Asian communities prize large families, and family planning is virtually nonexistent among indigenous populations.

The consequences of high birth rates most directly affect the health of women. Most experience high rates of anemia.

While it will be difficult to address family planning in the short term, some actions can be taken to help lengthen the interval between pregnancies. The most important is to encourage breast feeding. Women who breast feed have a naturally longer interval between pregnancies and generally exhibit better signs of health than women who bottle feed their infants.

In the non-Asian minorities, contraceptive devices have become scarce, contraceptives are declining in use, largely because of unavailability and high cost, and abortions are becoming increasingly frequent. United Nations reports indicate that it is not uncommon for women to have five or more abortions during their child-bearing years; the number tends to be increasing. While abortion is legal and carried out under safe

conditions in hospitals, the impact on the woman as a result of multiple abortions could be a problem in later years.

It is recommended that the U.S. government initiate a variety of family-planning initiatives in each of the republics in the region and support them with broad-based public awareness campaigns.

FOOD PROCESSING

During the Soviet period, the Central Asian republics were expected to produce raw materials and grow food and agricultural products. With few exceptions, they were restricted to exporting their commodities unprocessed to Russia and the more industrialized republics in the west. In the 1960s and 1970s, when agricultural production became increasingly problematic, the producing republics began asking for a greater share of the food and fiber processing. These requests were largely ignored; the centralized communist system discouraged basing value-added processing in or near the producing areas. Throughout the period, resentment against the system increased, and local politicians commonly clamored for the establishment of food processing in every *oblast* and, in many cases, on every collective farm.

Since independence, the governments of the newly emerging Central Asian states have proceeded along these lines; virtually every local official has plans to establish processing facilities in his or her area. While some processing is clearly warranted, some of the plans are unrealistic and costly. For example, in Kazakhstan, government planners are considering establishing oil refineries in all the producing *oblasts*. While this would clearly create jobs, several regional complexes would be far more cost effective. In Tajikistan and Turkmenistan, government officials talk of establishing textile production in every *oblast* and intermediate processing of threads on every collective farm. They are proceeding with the plans prior to a national assessment of the role cotton will play in the future agricultural plans of the country. This could create a number of problems, especially since they are now contemplating reducing their reliance on cotton and increasing production of grain.

Food processing could play an important role in the production and marketing of perishable and difficult-to-store agricultural commodities (for example, vine-grown vegetables, milk, and meat). Processing grain, pulses, and most tubers is a much lower priority in the short term, since most families can store these products with rudimentary in-home storage techniques.

The United States can assist the governments in planning food-processing activities in several ways. First, technical assistance could be provided to help determine the marketability of certain processed foods, for both the domestic and export markets, and to help the government decide how to establish priorities in this sector. Second, a variety of small-scale food processing enterprises could be established to help improve the quality and quantity of foods that are stored by families for their winter reserves. For example, small businesses could sell low-cost containers for home canning and food preservation. These projects could be a privatization activity. They would build on and further encourage the already-widespread practice of putting up sufficient reserves to enable families to make it through the lean winter months.

Third, technical assistance could be provided to help governments examine the feasibility of large-scale food processing as both an export earner and as a source of employment.

FOOD STORAGE

As a result of independence, major changes are occurring in the food-production strategies of all the newly emerging Central Asian states. In the short term, virtually all the governments will continue the food-production and export policies and practices that were being carried out at the time of independence. For example, it is unlikely they will be able to make a major shift away from cotton for three to five years. They do not have the machinery or technical know-how, nor do they have sufficient alternative trading partners to permit a major shift from cotton to grain or other agricultural produce.

METHODS OF INCREASING MILK PRODUCTION

Milk production has significantly declined in all Central Asian republics in the last five years due to disruptions in supplies. Following the disruptions that occurred in the fall of 1991, livestock feeds that were normally procured from the Ukraine and Russia were not delivered in the normal quantities. In some areas, milk production fell by 40 percent.

Even if adequate livestock feeds are obtained from the normal sources, milk production will return to only approximately 80 percent of its pre-independence levels, as some farms have reduced the size of their herds to cut costs and have slaughtered the cows to produce beef.

In winter months, milk production normally declines because the feeds used are hay and grain, neither of which have adequate supplies of chlorophyll. Little clover or alfalfa is grown in Central Asia, and generally no chlorophyll enrichment is added to the feeds.

Several interventions could be undertaken by the United States and other donors to increase milk production. These include:

- Supplying surplus feed grains, especially corn
- Providing chlorophyll-enriched feeds or dehydrated alfalfa pellets

Provision of alfalfa pellets would dramatically increase milk output (15 to 20 percent) without requiring any additional equipment or changes in agricultural practices. Second, it would provide whole-cream milk, which has a higher nutritional value than dried skim milk. Third, it would benefit American farmers and agro-business.

SALINITY OF SOILS

Increasing soil salinity is a major problem throughout Central Asia. There are a number of reasons why this is occurring. Much of the water used is runoff from mountains that accumulates salt and other minerals as it flows down steep slopes. The water is conveyed largely in open channels that permit high evaporation rates during the hot summer months; when the water eventually reaches the fields, it has a high salt content per volume.

The second problem is the use of pesticides with high residual salts, which eventually accumulate in the rainwater runoff from the fields and find their way back into the streams and river systems or percolate down into the shallow-water table.

Third, large expanses that have become salty are located where wind and thermals can pick up the salt and spread it to nearby areas. The Aral Sea is drying up rapidly because the river that feeds it has been diverted for irrigation, leaving dry salt banks where water once was. Winds are also picking up that salt, distributing it over vast areas nearby and making agriculture virtually impossible for thousands of square kilometers.

The overall problem will require extensive research and a variety of interventions to reverse the process. However, there are some short-term efforts that could be funded within the

framework of humanitarian assistance. For example, in Kazakhstan, salt-resistant maize has been grown in some areas and is serving as an intermediate barrier against the spread of saline soils. Other varieties of saline-absorbent crops have been proposed, and alternative varieties that require fewer pesticides and fertilizers have also been advocated. A quick technical-assistance mission to identify opportunities and provide seeds and other inputs could be undertaken. Agricultural production could be increased, and saline problems could be addressed to some extent.

IMPACT OF EMIGRATION

Extensive out-migration has occurred throughout the region, and it is being felt in the industrial and commercial sectors in all the republics and in Kazakhstan's agricultural sector. The emigration of non-indigenous populations is not a new phenomenon; it has been going on for over a decade. However, the movement has accelerated since independence. Almost one-third of the Russian and Slavic populations of Tajikistan, for example, have reportedly left the country.

Emigration will have several effects. In northern Kazakhstan, the departure of the Germans could have a significant impact on agricultural production. The Germans run the most efficient farms, producing almost a third more per hectare than other Slavic groups in the region and almost twice as much as the collective farms in the southern part of the country. With as many as two-thirds of the German population leaving, agricultural production is likely to be effected in the short term.

The departure of Greeks from Kazakhstan will have an impact on the development of new private enterprises in the cities, since the Greeks were largely engaged in commerce and business activities. The departure of Russians, Ukrainians, and Belarussians will have an impact on the efficiency of industry and science in all five republics. The departure of Armenians will have an impact on eduction and, to a lesser extent, on privatization and small-business development since they, too, were largely involved in commerce.

There is one positive side to the out-migration -- it is reducing ethnic tensions in areas where Russians dominated industry and government administration. Indigenous people see the Russians' departure as an opportunity to move into jobs that were previously difficult for them to enter.

TRAINING IN ENGLISH AND PROVISION OF BOOKS

The assessment teams discovered a demand for English-language books in each of the countries visited. With intense interest in privatization and new market direction, government officials, students, and businessmen are trying to learn more about the free market system and how it works. They recognize that English is the *lingua franca* for the world's business community. Therefore, they are anxious to obtain textbooks and guides on business development, economics, business management, and computer science and are learning English so they can read the books. A tremendous opportunity exists to establish institutes to teach English as a part of assisting the economic transition. AID should consider directing language training groups specializing in English-language training to the Central Asian states and supplying basic texts on business management, administration, and computer science to the universities and technical and vocational schools in the republics.

OTHER SOURCES OF FOREIGN ASSISTANCE

HUMANITARIAN ASSISTANCE

IN

CENTRAL ASIA

THE ROLE OF TURKEY

Turkey is playing a major role in every country in Central Asia except Tajikistan. The Turkish government has established embassies in each of the new republics and is actively seeking joint ventures in agriculture, petroleum production, and a variety of business activities.

All the republics except Tajikistan speak Turkic languages. As the countries seek new identities outside the framework of the old Soviet Union, it is clear that many of the leaders are being drawn toward a Turkish model of development and secular government.

For its part, Turkey has been quick to nurture the idea that it can provide a course to navigate between the forces of Islamic revival and the strong, centralized government to which most of the republics have become accustomed.

The United States was wise to launch much of the initial relief activities in Central Asia from U.S. facilities in Turkey and to encourage the Turks to work hand-in-hand with the United States during Operation Provide Hope. The symbolism was not lost on the new governments. Joint U.S./Turkish humanitarian operations could be expanded in the next round of assistance, and if the approaches are properly designed, could benefit both U.S./Turkish and U.S./Central Asian relations. For example, it might be possible to set up commodity exchanges involving the two countries: the U.S. could provide some commodities that Turkey usually imports from the United States in exchange for Turkish food that could be shipped via combined U.S. and Turkish assets to Central Asia.

It might also be possible to procure equipment made by American manufacturers in Turkey and export it to the Central Asian republics. (This has special appeal to the Central Asian states, since much of the equipment made in Turkey, such as agricultural equipment, is an earlier generation and better suited to Central Asia. Furthermore, procurement costs would be much less, and more value could be obtained from the purchases.)

Supporting Turkish ventures in Central Asia would be politically beneficial to Turkey as well. The Gulf War deprived Turkey of its second-largest trading partner, Iraq, and has had an adverse impact on the Turkish economy and political situation. Establishing strong markets in Central Asia would be a good way to assist an important American ally in the region.

ROLE OF THE RED CRESCENT

Each Central Asian republic has an established Red Crescent Society. These agencies have assumed a role in the social-welfare network in recent years. Red Crescent's primary task is identifying elderly pensioners who cannot leave their houses and providing in-house support to meet their basic needs. Home visitors, who are often nurses, visit the elderly on a regular basis and help them with shopping, obtaining medical supplies, and other routine activities.

Some Red Crescent Societies have taken an interest in disaster preparedness, especially in earthquake zones, but so far most of their activities are rudimentary and, in the present economic environment, inadequately funded.

The Red Crescent Societies are the only locally based organizations outside the normal government structure that could be used for humanitarian assistance in the event of emergencies. It will be important to develop other nongovernmental organizations (NGOs). The Red Crescent, by default, must be the first organization helped by international donors to broaden its humanitarian relief capabilities. The U.S. Government should support initiatives by the Federation of International Red Cross and Red Crescent Societies to expand the capabilities of the local societies.

THE STATUS OF NONGOVERNMENTAL ORGANIZATIONS

At the present time, there are no major internationally recognized NGOs working in Central Asia. In the last two years, small ecumenical, and largely evangelical, private groups have started to establish operations in Kazakhstan and Turkmenistan. Yet, for the moment, these operations are still small, and while the organizations claim to have a variety of development and humanitarian interests, they are clearly motivated by evangelical objectives. In the long run, these organizations may become problematic, as Islam becomes more established in the newly independent states. It would be wise for the United States to encourage non-denominational NGOs to begin working in these areas to balance the religiously oriented organizations.

Since NGOs will be needed to help expand and strengthen the humanitarian safety net as government services are reduced, U.S. NGOs should be encouraged to establish local counterparts in each of the Central Asian states. Training and program development support could be provided through PACT and Interaction.

MANAGEMENT ISSUES

HUMANITARIAN ASSISTANCE

IN

CENTRAL ASIA

TARGETING HUMANITARIAN ASSISTANCE

The point of entry for all humanitarian food assistance to the Central Asian states thus far has been the system of institutions (*internats*) operated by the Ministry of Social Welfare in each of the countries. For example, Operation Provide Hope supplied surplus military food to orphanages, homes for the elderly, and mental institutions in each of the countries. In addition, the Red Crescent Society in several countries received supplies that home visitors and meals-on-wheels programs were to deliver to elderly shut-ins.

Before continuing this practice, a number of issues should be considered. First, *internats* and social services, such as the *stolovayas*, receive top priority from the government and are the first in line for all food procured by the state system. As long as the government has a commodity, the *internats* will receive it first. Second, except for Kazakhstan, the Central Asian republics have few *internats*, designated *stolovayas* for elderly pensioners, or even pensioners who receive assistance in their homes. For example, Turkmenistan has only six *internats* in the entire country and only 1,500 residents. While there are 6,000 single pensioners in the republic, only 2,000 need assistance, and only a quarter of those are classified as shut-ins who require daily home visits.

Only Kazakhstan has more than a couple of dozen *internats*, and a total institutionalized population of under 30,000. In Kazakhstan the youngest male child is expected to look after his parents. If there is no male child to do it, other members of the family intervene and provide for the elderly collectively.

At the same time, Central Asian families frown on family members going to *stolovayas* that have been set aside for the elderly. Families believe they have been dishonored if any member of their family were goes to a government *stolovaya*.(1) Today many families still prepare meals and take them to work rather than eat in the *stolovayas* provided free by the government in factories and state enterprises. There are no canteens or *stolovayas* in most rural towns and on large collective farms run by Central Asians.

This leads to the third major issue: how to provide food in an equitable manner to the Central Asian population. Most Central Asians consider aid in any form degrading. If aid is provided free or appears to be a gift, the population is likely to reject it.

All Operation Provide Hope food aid inadvertently assisted only the Russian and Slavic populations, since they alone were

willing to receive food aid provided through the social protection system. Thus, in every Central Asian republic, U.S. food aid was viewed as a means of helping the non-Asian community. Local officials were aware of this problem but none brought it up directly. Instead, they asked for medical assistance, since the medical system serves the entire population.

If American food aid is to reach the majority ethnic population -- and accomplish the expression of solidarity that planners in Washington are hoping for -- food must be monetized in private markets or, to a lesser extent, in the state stores. This is the only way it can be done.

If additional food aid is sent to Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan in the quantities now being considered, the program could seriously oversupply the few institutions that exist. For example, of the 1,500 people in *internats* in Tajikistan, only about half can eat the type of food being provided. Delivering 500 tons of military surplus food would give each inmate a three- to four-year supply of food.

THE IMPORTANCE OF THE FERGANA VALLEY

The Fergana Valley is one of the most densely populated regions of the former Soviet Union. The valley stretches across three of the Central Asian republics: Uzbekistan, Tajikistan, and Kyrgyzstan. All three of those ethnic groups as well as many other minorities live in the valley. The large population, high density, high birth rate, and ethnic mix have combined to intensify competition for the scarce land and water resources in the valley. Many ethnic tensions and nationalistic rivalries are focused on the area, which also has some of the region's most traditional and fundamentalist religious groups.

For example, adherents of the Wahabi sect of Islam -- which emphasizes a strict separation of unrelated males and females -- can be found in parts of the valley, albeit in small numbers. Other traditional practices approaching *purdah* -- the isolation of women practiced in Afghanistan, Pakistan, and Iran -- can be found in this area.

In 1989, tensions in the valley were ignited over land and water disputes with groups that were considered outsiders by the local population. Some 15,000-30,000 Meskhetian Turks were forced to flee the area under the protection of the Soviet Army. Uzbeks and Kyrgyz have clashed and tension is also high between Tajiks and Uzbeks.

A reduction of tension can best be accomplished by targeting development aid to the area and increasing employment opportunities for the rapidly expanding population. Increasing educational opportunities and vocational and professional training as well as providing rural populations an opportunity to migrate to other areas of their respective countries can help reduce the competition for rapidly dwindling resources. This will largely have to take place in the context of new business development. Privatization in the area is likely to be slow because of nationalities questions.

To understand the importance of the valley, one only has to consider what would happen if ethnic tensions were to erupt into conflict in this vital area. There are approximately 7.5 million people living in an area 150 kilometers long and 45 kilometers wide. If trouble were to break out there and spread to all three countries, the number of people who could be displaced could effectively increase the world's refugee population by 50 percent.

One other important consideration: the Fergana Valley lies astride one of the major fault systems in Asia. The epicenter of the earthquake that leveled Tashkent in 1966 was located in the valley. Over 40 percent of the houses there are made of low-quality earthen materials such as adobe or rammed earth.

RISING NATIONALISM AND ISLAMIC REVIVAL

Nationalism is on the rise in every Central Asian republic. Indigenous populations long throttled by the Soviet system are reveling in their new-found ethnic and cultural freedoms. Every country has passed language laws making the language of the titular majority the official language, and several countries are considering changing their alphabets from cyrillic to arabic or romanesque characters.

An Islamic revival is interwoven with this new nationalism. For the first time in many years, large numbers of the population are observing Ramadan, the month-long period of fasting and prayer, and new mosques are being built to replace those destroyed during the communist era.

The combination of nationalism with an Islamic revival concerns the non-Islamic populations. They fear the emergence of Islamic fundamentalism that could make it impossible for them to remain in Central Asia. To a large extent, these fears are premature and overstated. Every country has passed a constitution that establishes a secular state and guarantees freedom of religion and conscience to all citizens. Governments

have repeatedly stated that all persons living in the country at the time of independence are welcome to stay. In addition, the governments recently have been working within the framework of the CIS to assure those who want to take citizenship in their native country that they can do so while remaining as residents in their country of current residence.

The present governments, which are largely headed by former communists, are themselves wary of fundamentalism and see it as a threat to their own power. Indeed, the most likely scenario in the near future is for the governments to act with a heavy hand toward any nascent fundamentalist movement -- a move that could backfire and accelerate the growth of fundamentalism, rather than curb it.

The United States should not be concerned about fundamentalist or nationalistic expression at the present time. A culturally and religiously sensitive program of aid and development can be designed and implemented without difficulty. Regard for human rights, however, must be a cornerstone of U.S. aid policy, and any moves by nationalists to disenfranchise large groups of resident populations on an ethnic basis should be strongly opposed. Replacing Russian colonialism with nationalistic chauvinism would be a bad start for any of the new Central Asian states.

CRITERIA FOR SETTING AID PRIORITIES IN CENTRAL ASIA

In the aftermath of the dissolution of the Soviet Union, humanitarian assistance requirements for the new republics have put a major strain on the international humanitarian system at a time when Western donors are facing major economic problems of their own. While it is important to assist all of the new Central Asian republics for both humanitarian and political reasons, criteria can be established to rationalize aid decisions.

Three of the republics -- Kazakhstan, Turkmenistan, and Uzbekistan -- have major deposits of oil and gas that they will be able to export. They can already mortgage some of these assets and purchase the food, medical, and other supplies they need in short order. Long-term medical help or food programs in those nations should be credit-based.

For example, Turkmenistan has appealed for vaccines and medical supplies for its small (3.8 million) population. Western Turkmenistan borders on one of the largest oil basins in the region, and the republic is currently negotiating with international oil companies to expand production. At current

market prices for oil and natural gas, the sale of 20 days production with a 20 percent royalty would pay for revitalizing the entire medical system in the country.

A similar case can be made for Kazakhstan. Under one deal currently being explored between Kazakhstan and Chevron Oil Corporation to develop the Tengiz oil field, Kazakhstan's long-term royalties would amount to approximately $25 billion. UNICEF has estimated the cost of vaccinating all vulnerable children in Kazakhstan in the next year at approximately $1 million. This would amount to approximately 1.5 days' oil production. It should also be noted that Kazakhstan is currently planning to expand vaccine-production facilities, which it hopes will supply not only its own population but the needs of its southern neighbors and large areas of Russia.

Officials in the three countries are not looking for charity and are willing to pay for much of the humanitarian assistance that is required. The U.S. government can still show its solidarity with Central Asia by helping rationalize procurement of food, medical, and other critical supplies. It can also help these countries avoid the debt problems many other emerging oil-rich states have experienced in the past.

In Kyrgyzstan and Tajikistan, the primary export earner will be agricultural products (tobacco and cotton, respectively) for the foreseeable future. While both countries have unexplored mineral resources, it may take years before they can be developed and exploited economically. Therefore, much greater attention should be paid to development and humanitarian programs that support basic food, nutrition, and health services.

PRINCIPLES FOR USAID HUMANITARIAN ASSISTANCE IN CENTRAL ASIA

The recent experience in providing humanitarian assistance to the republics of the former Soviet Union -- and the unintentional misdirections that resulted from not understanding the implications of certain ethnic divisions within those countries -- point to the need for a series of guiding principles for both humanitarian and development assistance. The following principles are recommended:

- Focus humanitarian aid on sectoral activities that serve all ethnic communities until such time that selective aid programs are sufficiently funded to permit activities in many sectors. In the short term, it is especially important to redirect aid away from those programs that serve only the European minorities.

- In the area of privatization, AID should focus on developing new enterprises rather than on privatizing existing industries and government concerns. AID should discreetly earmark the majority of assistance to the titular majorities in each country. This will help keep the U.S. government clear of the problems that are likely to occur when existing enterprises are divided along lines of nationalities.

- AID democratization efforts should focus on helping the emerging political parties develop programs that are built around economic issues that transcend ethnic or national divisions. Building pluralistic parties that appeal to both the European and Central Asian communities will be vital in the transition from the old government to the new.

- AID democratization efforts should also focus on bill-of-rights issues. In the rule-of-law activities, it will be important to help establish a tradition of equal access to all government facilities and services and due process for both government acquisition and disposal of property.

- To increase intergovernmental cooperation among the Central Asian states, AID should encourage and support the development of intergovernmental cooperatives, economic ventures where two or more countries have a comparative economic advantage. For example, the cotton-producing countries should be encouraged to form a cotton syndicate so they can get maximum advantage for their product. Cooperation in these areas will help overcome some of the problems that may arise as a result of rivalries in the region.

COUNTRY SUMMARIES

HUMANITARIAN ASSISTANCE

IN

CENTRAL ASIA

HUMANITARIAN ASSISTANCE REQUIREMENTS: KAZAKHSTAN
AN ASSESSMENT

SUMMARY OF MAIN POINTS

Food Availability

1. Kazakhstan is normally a food exporter that unlike the other Central Asian republics, does not depend on food imports. With its vast oil and mineral reserves, Kazakhstan can afford to purchase those items it does not produce. Due to drought, poor management, and the upheavals in the former USSR, Kazakhstan did import grain, mainly for animal feed, last year.

2. Technical assistance would be the most appropriate form of aid in the short term. Specific needs are:

- food storage
- food processing
- food pricing

Next Season

3. Despite talk of reform, the agricultural system is still directed from the top and planning is highly centralized.

4. Seeds do not seem to be a problem but fertilizers and pesticides are.

5. There are some indications of strain in the 1992 crop. For example, some of the new private farms have already sold their 1992 harvests on the emerging futures markets and some are already selling 1993's crop. Observers believe that they are selling now because agricultural credit is not available for the private sector.

6. There are no significant new plans in the agricultural sector, though the government claims to be moving towards privatization of farms.

7. It is unclear how much of the 1992 crop will be sold to Russia and other Central Asian states. If Kazakhstan cuts back on supplies to Russia, food prices in Russia could increase.

Entitlement issues

8. Food is not in short supply. It is expensive, especially for those on fixed incomes. Most people are living on supplies of

vegetables and other food they preserved for the winter. Others are coping by trading and bartering (which is easier since more people live on farms). Kazakh families are much larger than other groups (and than in Russia), and food sharing is traditional.

9. The Kazakhstan social protection system is the same basic system as the one in Russia, though there are some significant differences. For example, some rural areas give food instead of coupons for the elderly. The government has also established a "Goodwill Fund" and is asking private individuals to contribute to help the elderly.

10. The ministry has some innovative ideas for involving the people in their own pensions, eg., a pension bank. The government is anxious to learn more about how to privatize pension funds.

11. Costs of living are about 20 percent higher than the lowest pension.

12. The retirement homes have few Kazakh or Muslim residents since by tradition, families take care of their own elderly. Most of the pensioners receiving assistance are Russians or other slavic nationalities.

13. Technical assistance needs include:

- management of funds
- investment strategies for social security funds
- information on Western models of support

Migration Issues

14. Some of the population is already in moving in or out of the country. Ethnic Germans are applying to leave the CIS and return to Germany. Some Russians are leaving, but their numbers are offset by the number of Russians who are moving into Kazakhstan from other places in Central Asia.

15. A new language law making Kazakh the official language has given rise to fears among the non-Kazakh population that their place in the nation is threatened. Russians in the north are especially concerned. Some officials are worried that pressures to create a multi-party system could lead to the formation of parties along nationality lines.

16. The Kazakhstan government's policy is to keep the ethnic issue under control. The government has made many public statements assuring everyone that they are welcome to stay.

17. Muslim fundamentalism is not a major issue.

18. Other populations in motion include:

- Greeks
- Crimean Tatars
- Turks

19. Populations to watch:

- Uighurs
- Germans

HUMANITARIAN ASSISTANCE REQUIREMENTS: KAZAKHSTAN
AN ASSESSMENT

INTRODUCTION

Kazakhstan is the second largest state in the CIS. It lies on the vast steppes south of Russia occupying 2.7 million square kilometers. With a population of 16.5 million, it is third in population, after Ukraine. There are a total of 8.1 million Kazakhs in the former Soviet Union, many in other parts of central Asia, especially Uzbekistan, and in Russia.

Kazakhstan has the least homogeneous population of the former Soviet republics. No nationality constitutes a majority of the people in the state. Russians make up 38 percent of the population, almost as much as the Kazakhs, who, at 40 percent of the total, are a minority in their own country.

Geography:

Kazakhstan has arid, semi-desert plains (the Turan Lowlands), high desert, and vast northern farmlands (the Kazakh Uplands). The high Tien Shan mountains lie along the country's eastern and southern borders dividing it from China, Kyrgyzstan, and Uzbekistan, and provide some of the runoff that is used to irrigate the vast farms that lie along the base of the range. The country is effectively divided into two parts by the central desert. Most major towns and settlements lie on the periphery of the country.

The vast steppes made it easy to cross the area, and both traders and invaders passed through the region en route to some place else. The most significant of the invaders were the Mongols and various Turkic Khans, who left their language.

Though the land is extremely dry, irrigation has enabled farmers to produce grain and cotton on its rich soils. Unfortunately the byproduct of this intensive agriculture is a high level of residual mineral deposits, especially salt, which is beginning to threaten further cultivation in some areas.
Of particular concern is the shrinking of the Aral Sea and the resultant spreading of salt from that basin.

The country is rich in petroleum and natural gas, most of which has been untapped. This, in addition to its agricultural potential, makes Kazakhstan a potentially wealthy country which may one day be able to sustain a healthy economy and to become a strong exporter of food and other commodities. Because it can bank on its vast oil reserves, Kazakhstan should ultimately be able to pay for all its basic needs, including food, if that becomes a necessity.

Population:

Over 50 percent of the population is composed of elderly people, invalids or children, i.e. the "vulnerable" population. Approximately 42 percent of the population lives in rural areas, and 82 percent of ethnic Kazakhs live there. The birth rate is high. Average family size is about eight.

Development Indicators:

The average annual income level in Kazakhstan is R.1,500 per year, which is one of the lowest in the former Soviet Union. It also has one of the highest infant mortality rates in the CIS. This is attributed to poor sanitary conditions and the practice of bottle feeding infants.

Kazakhs ranks 6th (among the 17 major ethnic groups in the former Soviet Union) in the number of students attending universities per 1,000 population.

FOOD AND AGRICULTURE

Food Availability:

Food availability per se is not a problem. As in other areas of the CIS, the price of food relative to income is a major problem for people on fixed and low incomes. Limited selections in each food group are widely available in both the state shops and the free market. Prices have risen sharply since December 1991, although there are some regional variations in prices. For example, dairy products are cheaper in Chu Rayon (in the south central area) than in the capital of Alma-Ata and areas northeast of the capital visited by team members. The current prices of foods at state stores and in the free market for several selected areas are shown in Annex 1. The only item that was generally unavailable throughout the country was sugar.

1991 Harvest:

The total harvest for 1991 was only 11 million tons of grain, of which 3 million tons were non-feed grain.

Non grain production included:

- milk: 2,970 tons
- meat: 1,530,000 tons (live weight)
- eggs: 4.5 billion

In 1991, before the breakup of the USSR, Kazakhstan had agreed to deliver 7.7 million tons of grain to the central government. By

the end of the year, it had only delivered about 3.8 million tons. This was due to:

- drought: Instead of the predicted 13-14 centinars/hectare that was the usual yield, the harvest only brought 5.3 centinars/hectare.

- Insect infestation: There was a major grasshopper problem last year.

- The new government realized it could earn more by selling or trading the grain elsewhere. Since the Russians were having trouble paying for what they had already received, there was no economic incentive to fulfill the contracts. Furthermore, there were no legal repercussions in breaking the contract since the entity with which they had contracted, the USSR, no longer existed.

Kazakhstan was supposed to receive 700 rubles/ton for the grain that it did sell to Russia, but ultimately, the government did not receive full payment.

Livestock Feeds:

Feed for livestock continues to be a problem. The country is currently buying feed grain from China, Hungary, and Yugoslavia with English and German credit. Because of the need to import feeds, Kazakhstan imported more grain than it exported in 1991.

Food Reserves:

It was difficult to obtain data on national food reserves. As a result of last year's drought Kazakhstan imported grain from the US (via the USSR). Several officials hinted that a grain reserve left over from military contingency planning during the cold war period exists, but would not provide details. Officials at the Ministry for Bread and Grain were noticeably uneasy when grain stocks were discussed and terminated the meeting when the reserve question came up.

Despite this, the immediate supply of foods, including grain, does not appear to be a problem. In times of shortage, such as the drought in 1991, most food producing regions secure their own food needs first and sell less to the state for the cities.

Most food on the free market is produce grown on the portion of the state farms allocated for private production or in kitchen or dacha gardens. Selling prices of goods follow the laws of supply and demand, though, surprisingly, there is little significant variation in prices between regions or cities despite the additional costs for transport. Price differences between

vendors tend to be based on the age and quality of the commodity rather than on availability.

General Agricultural Conditions:

On-farm storage is extremely limited. The Soviet system prevented farms from developing their own storage capacity. This practice was meant to force farmers to relinquish the grain immediately, rather than hold it and wait for better prices. As a result grain was sold to the state right after the harvest for a set, low price. In the new, more geographically restricted market, grain storage will be a larger problem than before, especially for the northern areas that used to ship directly north into Russia.

There are virtually no on-farm storage sheds for equipment. This results in rapid deterioration of tractors and other machinery.

Agricultural Forecast:

The Ministry of Agriculture wants to produce 25 million tons (cleaned weight, 28 million bunker weight) of grain. Of this,

- 4 million will be for seed
- 11 million for feed grain
- 10 million (of the 28 million bunker weight) will be sold by the government on state contracts
- 4-5 million (bunker weight) will be held for domestic consumption
- 5-6 million (bunker weight) will be exported.

The government has already signed contracts to export 5-6 million tons of milling wheat to Belarus, Uzbekistan, and Tajikistan.

The total area to be planted in grain is 23 million hectares. Two million has already been planted in winter grains, but the dry winter in the north and west will mean 20 percent must be re-seeded. For feed grains, the ministry also plans to plant 300,000 hectares of corn. If everything goes well, yields are expected to be 30-40 centinars/hectare in the north and 60-70 centinars/hectare in the south (irrigated).

The government estimates that livestock will produce 1.5 million tons of meat (live weight) broken down as follows:

- 50 percent beef
- 20 percent pork
- 20 percent mutton
- 10 percent poultry

Milk production is estimated to be 3 million tons (from state and collective farms). Poultry production should yield 4 billion eggs.

There are two main agricultural zones in Kazakhstan; the southern arid zone and the northern "new areas."

Southern Zone:

The southern zone has many regions of fertile soil, but unreliable rainfall results in poor crops. In the central Duzambul area crops are poor three out of every five years, according to agricultural officials. Livestock (sheep, cattle and horses) predominate because of the relatively dry climate. Significant amounts of wheat are also grown along with maize (mainly for animal feed) on irrigated and rain-fed land, and sugar beet on irrigated land.

Officials indicated snowfall and rains so far have been favorable but emphasize that rainfall must again be adequate in May to assure a good harvest.

In a good year, wheat yields on irrigated acreage vary between 3.5 and 4.0 MT per hectare, and on rain-fed land between 1.2 and 1.4 MT. Barring critical food needs in Kazakhstan, grain is exported to Eastern Europe and other republics within the C.I.S. Winter wheat is normally harvested in late June and early July.

Maize is another important crop in the south. Most of the maize grown is for animal feed and in good years, the country is normally self-sufficient. Due to last year's drought however, there is a nationwide shortage of feed grains. Maize seeds are normally obtained from Yugoslavia. One oblast entered into a multi-year contract with Monsanto to produce higher yield seeds as well as to provide certain agricultural equipment and technical assistance.

A third important crop is sugar beets, harvested in September/October. The main problem now affecting the sugar beet industry is the low sugar content in the beets, generally between 7.5 and 9.0 percent. Local agricultural officials would like to obtain technical assistance to identify and/or develop a higher yielding beet.

Northern Zone:

Food is plentiful; only potatoes and vegetable oil are in short supply, the latter presumably because there is so little production, i.e. processing machines. Stores seldom carried oil, although people could buy it at state farms that produced it.

Expectations are high for this year's crop. A lot of arable land has already been cultivated; the high level of snowfall should have a favorable impact on moisture retention. Farmers, however, are concerned about the profitability of this year's crop, even given a good harvest. Their biggest concerns center on the planned increase in fuel prices and the threat of inflation. Government contracts are made in the spring and the price is set for agricultural products at that time. By the time of the harvest in the fall, the price of production could outdistance the amount received. Most farmers are counting on government subsidies on one hand, and buying and selling at real prices -- possibly for hard currency -- on the other. There seems to be little official information about where and how the government plans to market this year's crop, although there is an intergovernmental agreement among the republics to sell agricultural products. For now the prices will be in rubles, although hard currencies will be gradually introduced.

The bulk of the northern farms are profitable. Ten years ago Tselinograd Oblast was a net importer of vegetables, but now it exports potatoes, cabbage, turnips, and beets, also raw meat and unprocessed wheat.

In the north it is estimated that half of the population grows vegetables on dachas to ensure a food supply through the winter. People begin to bring out their extra last year's potatoes in April and put them on the market. Sugar, vodka, and butter are rationed at state stores. Most stores maintain a schedule of specific days when customers can buy their rations.

Inputs:

Seeds do not appear to be a concern. The Ministry claims to have enough seed for this planting season, with the exception of 100,000 tons of barley and 3,000 tons of hybrid seed corn which will come from Yugoslavia.

Kazakhstan is generally short on all other inputs: herbicides, feed, equipment, etc. Government officials made special mention of a shortage of herbicides for grain, corn, vegetables, sugar beets, potatoes, and sunflowers. Kazakhstan does not produce herbicides, but imports them from other republics. Approximately 90 percent of the pesticides and herbicides are applied by air. Herbicides are imported from abroad, but officials expressed concern that their overall needs could not be met. Due to the current economic situation, the government has been unable to buy fertilizers. The primary need cited was for nitrophosphate. Phosphate fertilizers are produced in (and exported from) Dzambul Oblast, but the amount produced represents only a small portion of the total need. At present, officials are bartering with China for agricultural chemicals.

Several requests were made for technical assistance on how to how to deal with increasing salination of soils.

Approximately 20 percent of grains are lost from harvest to market. Local officials stated that post-harvest grain losses on farms, though significant, were not considered excessive under existing conditions. With respect to wheat, approximately 150 kg per hectare are lost in the field by the combine harvesters, while losses in storage are negligible. Most grains move immediately off the farms, however, and losses during transport average seven to eight percent due to the poor conditions of the roads, the use of open trucks, and a careless attitude on the part of the drivers/handlers. Fruit and vegetable losses were acknowledged to be serious due to a lack of storage and processing facilities.

Food Processing:

Local officials in all the oblasts visited were anxious to attract foreign investment for food processing plants.

Feed Grain:

The drought last year left the country short of animal fodder. Farmers are not slaughtering now, and do not plan to do so. However, milk and meat production are down. Farmers and government officials alike asked for immediate assistance in providing feeds.

The government wants to increase feed grain production on new and existing farms. For example, the government wants farmers to raise silage corn in Koostenai where it can get a substantial return. However, since there is little irrigation in this area, much of the feed grain would need to be grown on rain-fed areas, producing irregular yields. In the near term, the government wants to continue to import feeds. This year, partly because of the drought and also because the Russians were unable to meet their contract payments, many farms in Kazakhstan have been feeding grain normally used for human consumption to cattle.

Trade with Russia:

The Ministry of Agriculture is concerned about selling again this year to Russia because of Moscow's failure to pay last year. Several government officials indicated a preference for bartering food with Russia and other republics for needed materials. It is clear that the next harvest will be marketed through non-traditional channels to get the most benefit.

Needs:

The government is seeking $125,000,000 worth of credit for buying grain, vegetable oil, and corn. Kazakhstan is also requesting 200,000 MT tons of soybean meal. The government has

asked for credit or humanitarian assistance to buy feed concentrates such as barley, corn and soybean meal. Agricultural experts have noted that total milk production for the country could be increased with the introduction of alfalfa pellets.

On-Going Technical Cooperation:

Officials indicated that Kazakhstan has been involved in economic cooperation with Germany, Yugoslavia, Italy, and the Netherlands. Kazakhstan has a longstanding relationship with Canada, which has a similar climate and topography. (They could use a little assistance from Montana.) The Agriculture Minister has just returned from Israel where he discussed drip irrigation and other methods of increasing cultivation on arid lands. It is expected that technical contacts with China will also increase, in part due to the current bartering between the two countries which already is extensive.

Technical Assistance:

The most important need is technical assistance to help make the transition to the market economy. Specifically, farms asked for help in:

- developing product lines
- developing marketing strategies;
- developing light industries to add value to the food (eg., canning and other food processing).

PRIVATIZATION

All areas are moving deliberately but cautiously toward privatization. In accordance with presidential directives, in 1992, state farms will be permitted to keep 30 percent of their production for distribution to the workers or for sale on their behalf.

Various state farms visited in Kazakhstan are handling this move toward privatization in different ways. One farm in Dzambul Oblast appears to have gone a step farther than those visited elsewhere. State Farm Novatroisk, in Tolibi, was developed as a 50,000 hectare livestock enterprise, to raise dairy and beef cattle, sheep, and horses for milk, herding and meat, employing 370 full time workers and about 150 seasonal (i.e., summer) workers. Seven extended families, ranging from three to seven nuclear families each, have left the state enterprise to raise livestock on their own. They have been given plots of land from 40 to 100 hectares each. The remaining employees have divided themselves into 15 groups of individuals sharing similar skills, e.g.

herdsmen, equipment operators, mechanics, etc., akin, perhaps, to the guilds of medieval Europe. These groups are assuming control of those state properties, such as horses, tractors, and repair shops, essential to their trade, under credit terms that are not yet clear. They are contracting with the state farm for their services in return for a share in the farm's profits. Both labor and management are hopeful that this approach will result in higher productivity and increased living standards. This experiment bears watching.

Privatization of the farms in the north is a long way off, though industrial privatization is occurring at a good pace. Officials in Tselinograd expect 50 - 60 percent of all enterprises in the oblast, primarily small and medium-sized, will be private by the end of 1992. They do not expect full privatization for another ten years.

The law dictates that by 1993 all state land ownership shall be abolished and everything will be divided into private holdings. Farms are not yet being bought by employees, but some land grants (leases) have been given for private farms. In order to receive land, one must apply to the regional headquarters. Credit is given to buy needed equipment, seed, and other supplies, and no taxes are collected for 3 years (usually 8 percent.) The lease can be inherited by family members who will continue to farm the land.

Policies for privatization of state-owned land and enterprises are set by the Privatization Board of the State Committee for State Properties, with representatives from each oblast. An oblast-appointed committee governs privatization of oblast and regional properties. Preference for buying a business is given to employees first. If a business is not profitable, it may be put up for auction (rare), or put out for bid, based on specific criteria other than price. Occasionally enterprises or portions thereof can be handed over for free, particularly if the business involved is a self-developed trade such as production, building, or processing. Foreign investors are not prohibited from buying businesses. Industrial corporations can also buy state farms.

Under the privatization law, a 1000 hectare state farm with 100 people on it, 50 of whom work, will be divided into 20 hectare plots, which may vary according to family size. Problems arise because the only buyer is the state, which still dictates the price of the product. However, after the state contracts have been fulfilled, farmers can make agreements with state owned storage facilities and sell the product back to the state at a later date for hard currency. State contracts are all in rubles. All new farmers received hard currency for their products last year, perhaps, in part, because of the overall agricultural shortage.

Financing for privatization comes partially from a coupon system whereby each worker receives a certain number of coupons to

invest in the company. Coupons are also given out to buy housing. Investors can pool resources to get the needed funds and they can get credits from the bank via a judicial representative of the collective who uses the collateral to obtain credit.

Farms are so large they are difficult to divide into private units, and farmers are afraid of price rises and are not willing to invest in private land.

The understanding of the consequences of privatization at all levels seems to be limited. People believed they had reached the goal of privatization as soon as the property was put under private ownership. People seem to think of state property as their own, after so many years without personal ownership.

ENTITLEMENT

Cost of Living vs. Income:

The preliminary findings of the recent UNICEF assessment estimated that 85 percent of the people in Kazakhstan need help in obtaining food and that people on fixed incomes spend 90 percent of their budgets on food. One reason for this is that families in Kazakhstan are generally larger than in other parts of the CIS. Average family size is 7. The most vulnerable groups are the elderly and those on fixed incomes. Cost of food and essential items in relation to income is recorded in Annex 1. State shop directors noted a decline in meat sales and an increase in starchy staples, an indication of reduced purchasing power.

Discount coupons are given to every family. No coupons are issued for products that are readily available at reasonable prices. Many people have amassed coupons for sugar since there is none available at the present time.

Coping Strategies:

Kitchen gardening is very common. Some of this produce is sold on the market and some is used to supplement the diet. Poultry, pigs, and cows are also kept by those in rural areas. Relatives share food and there is brisk trading of coupons. Many people have stocks of food they bought before prices went up. People in the rural areas in the south generally find it easier to manage than people in the cities and in the north.

NUTRITION

It was not possible to conduct a systematic nationwide assessment of nutrition. However, it is possible to make the following observations.

There was no evidence of PEM in the population; however, there was some evidence of specific mineral deficiencies. Iron deficiency anemia affects at least 40 percent of women and is attributed to diet, childbearing, abortion and increased use of IUDs (inter-uterine devises).

Babies are breast-fed for an average of one year. Infant milk formulas are infrequently used. There are no milk programs for children in Chu district, but milk is relatively cheap.

There does not appear to be a health or nutrition emergency in this region. The usual indicators associated with "stress," such as selling off assets, as not present. Nonetheless, there is some evidence (as in other areas) to suggest that vulnerable groups, such as the elderly, those on fixed incomes, and some children, may not have access to a diet sufficient in quantity and/or quality to maintain good nutritional status. For this reason careful monitoring of the situation is required.

Anthropometric data can not be relied on to detect food emergencies, since such data are only useful when nutritional status has already deteriorated. Food price trends and purchasing power should be monitored. Public health officials should be encouraged to conduct ongoing assessments of nutritional deficiencies.

SOCIAL PROTECTION

Aid to Pensioners:

As in other parts of the CIS, pensioners are a major concern. Some 3,000,000 persons are on pensions and the number is growing. The system for supporting those on fixed incomes is nearly the same as in Russia; the government issues coupons for food in the state stores and coupons for hot meals in the state canteens or *stolovayas*. In some oblasts, the *stolovayas* give a free meal once a day to pensioners and other food coupon holders. A special subsidy is given to people who live in ecologically damaged areas. Pensions in Kazakhstan are generally lower than in Russia because there are more rural families and salaries are lower. One feature of Kazakh society is that the elderly are traditionally cared for by their family and community, thus there are few pensioners of Kazakh origin in homes for the elderly.

The oblasts are having difficulty in meeting their budget needs, especially since pensions are increased periodically to adjust to the cost of living. Each oblast has developed a different response. In the Dzambul region for example, there are 164,000 pensioners. Approximately 111,000 of these, who receive the minimum state pension of R.342 per month, are receiving an

additional R.100 monthly from the oblast. It is only in the last 3 months, following the dramatic price rises in January, that oblast funds have been used for this purpose. The main sources of funding come from donations by large enterprises, penalties and taxes.

In the Kirova Rayon of the Taldy-Kurgan, local officials are already predicting a deficit but plan to make it up two ways. First, they are providing food directly to many of the pensioners directly from the state farms. This is said to be much cheaper than providing the food from the state stores. Farms are also asked to voluntarily give food for pensioners. The Rayon also plans to "increase production" and to use a portion of the proceeds to pay for the increased welfare costs.[1]

In one region just north of Alma-Ata, public officials have come up with an innovative way to solve the short term problem. They have begun to monitor the income reported by new private enterprises, and when they find a major discrepancy, impose stiff fines. So far the fines, plus a new tax on vodka, have made up the difference.

Several rural oblasts promote the use of small homes for the elderly (10-12 places) at the district level rather than sending those who are bed-ridden to the larger institutions. This is possible in rural areas because of the higher proportion of Kazakhs, who almost always care for their elderly themselves, in the homes of family members.

Elderly who cannot easily leave their homes are routinely visited by social workers who are responsible for 10 families each. The Ministry of Social Protection calculates that there are 54,000 elderly living alone who qualify for one form of assistance or another. In many areas, elderly living alone are provided with one hot meal a day by the Red Crescent (Meals on Wheels).

In many of the rural areas, there are no *stolovayas* serving free meals to the elderly. Some pensioners receive help from their former employers or their unions. For example, retired railway workers can eat in the railway canteen once a day at low cost.

In Tselinograd, in the north, trade unions give coupons for lunches at *stolovayas* amounting to R.15 per person per day. The recipients were able to trade in their coupons for food to take home, if preferred. The rate was considered the average cost of a meal.

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[1] This is a throwback to the sloganeering typical of the pre-perestroika era.

Unemployment was unheard of until this year. There is a state referral service for the unemployed and unemployment compensation if needed.

In Tselinograd, a part of the oblast social services assists with house repair, telephone, and other chores, for the elderly. Volunteers provide the service to about 600 seniors who receive 314 rubles/month assistance. The program has been in existence for 5 years. The oblast plans to open half-price clothes stores and discount food stores in the near future.

In Kazakhstan all families with 3 or more children also receive assistance in the form of food coupons and food stamps. The government policy is to encourage and reward large families. For each child 0-3 years old, the family receives R.3,200 per year, and from 4-18, R.2,200.

There are 340,000 families headed by women who receive assistance in the form of subsidies for food.

Institutions:

The percentage of the population living in institutions is considerably less in Kazakhstan than in other regions due to the Kazakh tradition of taking care of elders in the family. The largest number of institutional residents are children (18,000).

The government is worried about the rising costs of maintaining the *internats*. Two state farms have been dedicated to producing food for the *internats* and a major effort is underway to reorganize the system to make it more economical to operate. The government wants to set up its own factory to produce wheelchairs so that long term costs can be cut. Start-up costs for the factory are estimated to by $4,000,000.

Government Plans:

The government is obviously very worried about the plight of the disadvantaged, and the costs. The current budget is R.19 billion but only R.18 billion is available. The government recently passed a law that guarantees support for elderly and pensioners, and by extension all those now receiving social support. The people in this category are to receive priority for food and medicines.

Immediately after independence, the government established a nationwide pension fund (analogous to the Social Security Fund in the US). This was done to replace the funds lost when Kazakhstan became independent from the USSR. Each person puts 1 percent of his/her salary into the fund. They are also exploring

privatization of pension plans and are considering organizing a pension bank. Under the bank plan, workers would be allowed to make larger contributions to the fund which would then be lent for short term, high interest economic activities. The interest paid on the loans would help subsidize the pension fund.

The government plans to phase out food stamps and coupons and switch to making cash payments directly to family's banking account.

To help during the economic transition, the president ordered that one-time payments be made to those on fixed incomes. The amount was roughly equivalent to one month's pension. Other special benefits were announced such as special fuel prices for veterans, and oblasts and rayons were encouraged to come up with their own plans for helping people. Many local authorities have organized special direct-purchase prices for commodities produced by state farms, have arranged free transport for veterans, and have set up special Goodwill Funds supported by "voluntary" donations. Some of the richer oblasts contribute funds to the rayons to help top off the funds.

One emerging problem is that the government is taxing the emerging private sector very heavily to pay for social welfare: there is a 28 percent sales tax on privately manufactured items. This is discouraging some new enterprises and forcing many others to operate with two sets of books.

PUBLIC HEALTH

The epidemiology and statistical information system in Kazakhstan is centralized under the control of the Republic Ministry of Health. This is in contrast to the system in effect in the Russian republic where the functions of surveillance and control of communicable diseases have been the responsibility of a separate Committee for Epidemiology. This bureau reports to the President of the Republic rather than the Ministry of Health. The organizational structure in the Republic of Kazakhstan allows for more centralized control of data.

The data collected by the Ministry of Health can be divided into two main categories: (1) Acute infectious disease of significant public health concern, (2) General morbidity and mortality data. The flow of information through the system is similar for both categories of data. The initial information is collected from the individual hospitals, outpatient clinics and collated at the district level. This information is then sent to the regional (Oblast) or city center, and from there the information is forwarded to the Republic Ministry of Health. From the Ministry, data is sent to the appropriate institute for collation and analysis. Infectious disease data is sent to the

Republic Sanitary Epidemiological Station and morbidity and mortality data is sent to the Republic Informational Calculative Center and forwarded to the appropriate clinical Institute, e.g. Maternal and Child Health, Pediatrics, Geriatric etc.

There are significant differences in the time course for reporting of the two categories of data. Information on acute infectious diseases must be reported within 24 hours or one week, depending on the severity of the public health risk. Mortality data obtained from death certificate records is collected every ten days. In contrast, morbidity data is compiled yearly and there seems to be a significant lag in reporting. The 1991 data was only starting to be reported at the time of the assessment team's visit in March 1992.

There appear to be significant technical problems which hamper the rapid collection and reporting of data. All data at the division and oblast/city level are collated by hand and reported over the telephone with hard copy sent by mail. There are no facilities for fax or electronic data transfer. In fact, the assessment team was told that many of the oblast centers did not have access to electronic calculators, and that the staff used abaci.

There are also concerns about the reliability of the data received by the central government. Members of several different ministries stated that they believed that morbidity data might be under-reported. This slant in reporting may be the result of pressure exerted under the old Soviet structure to report improvements in health status and the need to "look good". However, the same individuals who expressed these reservations also felt that the situation had improved and that the quality of the data was significantly more reliable now than it used to be.

NATIONALITIES AND MIGRATION ISSUES

Kazakhstan hosts a diverse population of 16.5 million: 39.5 percent Kazakh; 37.5 percent Russian; and, 22.9 percent others, mainly Ukrainians, Greeks, Germans, Koreans, Uighur, and other Central Asians (Uzbeks, Tajiks, etc.).

Ancient Kazakhstan spanned parts of China and Mongolia. Kazakh demographers claim 1.25 million Kazakhs are in China and 120,000 in Mongolia. Over the years there have been significant migrations of Kazakhs and other groups in and out of the country.

The Kazakhs first emerged as an identifiable ethnic group in the fifteenth century. The people were a mix of Mongol and Turkic peoples whose language derived from Turkish. The people were nomadic, a trait acquired largely as a survival strategy during the Mongol invasions. In 1731, the Kazakhs sought protection from the

Russians against the invading Kalmyks, an act that gave the Russians an opportunity to penetrate and colonize the area. The Russian expansion had profound consequences for the native peoples; today the Kazakhs are a minority in their own land.

There have been two demographically significant events in recent history of Kazakhstan: the in-migration of Russians and Europeans, and the decimation of the native population during the communist period. European migration occurred in three waves:

1. 1850-1916 (Czarist period): Russians and Germans

2. 1930s-1940s: the Steppes were opened. Russians were brought in by Stalin during the '20s and '30s as part of the industrialization campaign. During World War II, the Russians relocated many minorities they feared would become fifth columns against the Soviet Army. Some 500,000 Volga Germans came, along with substantial numbers of Poles, Ukrainians and Balts during 1939-1941.

3. The Virgin lands campaign. Starting in 1954, the Soviet government decided to open northern Kazakhstan up to agricultural development. Thousands of Russians and other Slavs were given financial incentives to open new farms in the virgin lands of the north.

The second event was the decimation of the native population during the period of collectivization known as "the Great Hunger", 1925-33. Demographers estimate that the population of Kazakhs prior to collectivization was 5.6 million. During this period, some 52 percent died and another 18 percent fled the country. Populations in the north were especially hard hit. The people in that area were forced to abandon their nomadic existence for life on collective farms. Kazakh demographers have recently compared the period to Pol Pot's Cambodia and the U.S. elimination of native Americans.

The combined effect of these two events was so substantial that today only 40 percent of the population is Kazakh. Few of today's Kazakh families were untouched by the Hunger and for years resentment against the Russians has lain dormant among Kazakh nationalists. Some observers claim that the desire to replace the population lost during the 30s was one reason why the native population constantly strived for large families. The Kazakh population is increasing dramatically, in absolute and relative terms. The average age of Kazakhs (23) is less than half that of Europeans (45).

Population growth rates among the European population began to lag behind those of the Kazakhs in the early 1980s and accelerated with glasnost/perestroika. The overall population remained the same, but the percentage of Europeans relative to the total began

to decline steadily. 1985 census data show very modest population gains for Russians, Germans, and Ukrainians, and modest declines for Belarussians and Poles, relative to non-European groups. Projections to the year 2,000 are difficult to make since it is not yet known what effect the dissolution of the Soviet Union will have on immigration and emigration in Kazakhstan. Recent official projections showed a modest decline in Russian population, but substantial declines in German, Ukrainian and Belarussian populations. In reality, the events of last year have dramatically increased the departure of Germans. Approximately 600,000 are reported to be considering leaving, more than 300,000 have already left, along with many Russians and other northern Europeans as well.[2]

The first place that the out-migration of non-Asian nationalities will be felt is in the agricultural sector. The German population is extensively involved and many of the most modern and efficient farms are run by them. National leaders worry that there could be a significant decline in agricultural production if large numbers of this group were to emigrate.

The manner in which ethnic distinctions overlap with geographical separation and social stratification is an important part of the current political situation. Kazakhs, for example, tend to reside in southern and rural areas and, except for government administration, medicine, and education, are not generally engaged in professional activities. Russians, on the other hand, tend to be urbanized and/or reside in the northern extremes of the country, and they, like the German community, are disproportionately represented in technical and professional fields. Russians appear rarely to speak much Kazakh, though Kazakhs appear invariably to have mastered Russian.

With independence, there has been an obvious, and, in the eyes of some Russians, a threatening, rise in Kazakh nationalism. The adoption of Kazakh as an official language of the country and the requirement that civil servants master the language by 1994 are perhaps the most obvious manifestations of this trend. There is clearly potential for ethnic conflict -- even secessionist movements and civil war -- but much will depend on the extent of hardship generated by economic reforms, on the extent to which all groups can be seen to profit by those reforms, and on the extent of political power sharing among the ethnic communities.

While it is promoting Kazakh nationalism, the Nazerbayev government is also seeking to assure the Slavic and other communities they have a place in the nation. Kazakh officials in various parts of the country, for example, mentioned the president's directive that orphanages and homes for the elderly,

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Source: M.E. Tatimov, Kazakh demographer.

largely occupied by Slavic groups, were to receive highest priority during this year of economic difficulty. Also, Kazakh officials rarely miss an opportunity to point out to visiting delegations that Kazakhstan is a "partnership" of many nationalities living in peaceful harmony. A survey conducted by the Institute of Ethnology and Anthropology (Moscow) in 1991 indicated that 11.4 percent of Russians in Kazakhstan were planning to leave the republic, 50.3 percent were planning to remain, and 36.3 percent had made no decision. For obvious reasons, secessionist views have not been officially reported.

Although Russian discontent presents the greatest potential threat to instability in Kazakhstan, the most substantial movement out of the republic at this time is of Germans and Greeks, whose communities are estimated to have originally been one million and 300,000, respectively. Both groups were residing in Kazakhstan unwillingly for many years and appear to be emigrating at this time because they finally have the opportunity to repatriate, not because they have been made to feel unwelcome or because they fear developments in Kazakhstan. Small numbers of Russians, Ukrainians and others have also emigrated recently but, again, apparently because there is now the opportunity to do so rather than because they feel they must.

Meanwhile, there have reportedly been small numbers of Russians and other Slavic peoples moving into Kazakhstan from other Central Asian republics, notably Tajikistan, and small, but perhaps significant, numbers of Kazakhs arriving from Mongolia, China, Turkey, Germany and Uzbekistan.

The situation of the Russians obviously requires careful monitoring and clear signals in Alma-Ata and in Moscow as to the USG attitude toward any political or economic policy that would coerce movement or encourage secession.

The situation of the Uighurs residing in eastern Kazakhstan should also be monitored as their population straddles the border with China, and the irredentist aspirations of this group are a matter of some concern. Demographer M.E. Tatimov estimates that there are some 7 million Uighurs, of whom 185,000 reside in Kazakhstan.

Other groups to watch include:

- Meskhetian Turks. Some 50,000 are now in Kazakhstan. Problems in the nearby Fergana Valley could raise the number to 80,000.

- People uprooted from the Transcaucasus. During WW II, Stalin removed large populations of Crimean Tatars, Kurds, Turks, and Chechens to Kazakhstan.

ANNEX I FOOD PRICES (MARCH 1992)

Food Type	State Store	Free market
Bread	2 - large loaf	1-4
Pasta	14 K	-
Barley	3	-
Wheat flour	4	-
Millet	-	45
Potatoes	9	8
Onions		5
Radish		4
Carrots		6
Turnips		
Milk	5 L	4
Butter	-	110
Cream	-	25
Eggs	2/egg	1.5
Beef	50+	45
Pork	68	59
Chicken	32	-
Lamb	48	50
Sausage	81	-
Fish	21	-
Apples		35
Sugar	None available	
Salt	80	
Tea	55	
Soap	3/piece	

Note: All prices by the Kilo unless stated

ALMA ATA PRICES

	Market	State Store
potatoes	8 r/kilo	4.8 r/kilo
onions	7 "	5.5 "
carrots	10 "	4.8 "
turnips	15 "	2.5 "
beets	10 "	5.2 "
cucumbers	15 "	33.28"
cabbage	15 "	4.8 "
cabbage, slaw	2.1 "	5.8 "
milk		10 r/liter
butter	150 "	86 r/kilo
cheese	70 "	
kefir		
eggs (10)	17	16.49
oil, veg	70 r/liter	9 r/kilo
sugar		7.7 "
tea		92 "
sausage	80 r/kilo	88.88"
lamb	60 "	
pork	65 "	50 "
beef	50 "	46 "
chicken	150 "	90 "
duck/goose	125 "	
salmon		
common river fish		13 "
tinned fish		8.7
brown bread		
white bread		1.8 loaf
potato flour		25.5 "
wheat flour		12.15"

TSELINOGRAD PRICES

	Market	State Store
potatoes (in short supply)		3.5 r/kilo
onions		6 "
carrots		4 "
turnips		3 "
beets		3 "
cucumbers		58.8 "
cabbage		3 "
cabbage, slaw		3.8 "
milk		1.29 r/liter
butter		53 r/kilo
cheese		13 r/kilo
kefir		1.8 r/liter
eggs (10)		13.82
oil, veg (in short supply)		9 r/liter
sugar		7 r/kilo
tea		20 r/300 gram
sausage		60 "
lamb		
pork	45 r/kilo	42 "
beef	50 "	42 "
chicken	28 "	
duck/goose	18 "	
salmon		
common river fish		38 " (smoked)
tinned fish		10
brown bread		1.8 loaf
white bread		1.92 "
potato flour		
wheat flour		13.17 r/3 kilo

COSTS OF LIVING FOR FAMILY OF FOUR: RUBLES/MONTH (CHU RAYON)

Food(coupons for sugar)	400
Soap(coupons)	5
Cigarettes and alcohol (coupons)	30
Rent,utilities	60
Total	495

SALARIES LEVELS: CHU RAYON

Field of Employment	1991(Dec)	1992
Pension	130	342 +100
Industry	600	1000+
Farmer	350	900 -2000
Sugar beet factory	-	2300(seasonal)
Teacher/Doctor	500	700 -1500
Admin	-	500 - 1500

Distribution of Ethnic Groups in Kazakhstan

Region	Kazakh	Russian	Other
	41.5	36.9	21.6
1. Kzyl-Orda	81.5	12.6	5.9
2. Guryer	75.0	19.0	6.0
3. Chimkent	58.2	14.7	27.1
4. Ural	57.5	34.0	8.5
5. Aktubinsk	57.1	22.9	20.0
6. Semipalatinsk	54.0	34.5	11.5
7. Gambul	52.5	24.0	23.0
8. Taldy-Kurga	52.1	31.9	16.0
9. Sherchenko	52.0	33.0	15.0
10. Gezkazgan	48.2	34.0	17.8
11. Turgal	48.0	33.9	18.1
12. Alma-Ata	43.5	29.8	26.7
13. Kok-Chetar	31.5	39.0	29.5
14. Pavlodar	31.0	45.0	24.0
15. Ust-Kam	30.5	63.0	6.5
16. Town of Alma-Ata	25.0	57.5	17.5
17. Tselinograd	24.5	44.0	31.5
18. Petropar	20.0	62.0	18.0
19. Karaganda	18.5	52.0	19.5
20. Kustanai	18.0	47.5	38.5

HUMANITARIAN ASSISTANCE REQUIREMENTS: KYRGYZSTAN

SUMMARY OF MAIN POINTS

GENERAL

1. Kyrgyzstan appears to be the most vulnerable of the Central Asian countries in the short term. The economy is under extreme stress. A majority of the population lives in poverty, with a small middle class. Imports required to meet basic needs far surpass Kyrgyzstan's ability to export. The social welfare protection system is demonstrably beginning to fail, and will be further strained by high unemployment anticipated for later this year. According to President Akayev's ethnic affairs adviser, ethnic groups are in a state of psychological shock since the dissolution of the Soviet Union, and very few believe they can control their own lives.

2. The impact of the souring economy will be exacerbated by ethnic difficulties. Ethnic Kyrgyz, who are in the majority, are already showing signs of resentment that they cannot compete on an equal footing with other ethnic groups in the society. Privatization tends to favor those with sufficient resources to buy land, shops, and flats -- the Europeans and the Uzbeks. Laws intended to compensate for this inequity are raising tensions in the society.

FOOD AVAILABILITY

3. Kyrgyzstan produces all of its essential domestic food requirements with the important exception of grain, 700,000 to 800,000 MT of which was received each year from Kazakhstan prior to the breakup of the Soviet Union. Due to drought in 1991 and a winter that has carried into March 1992, Kyrgyzstan's grain import requirement for this year was reported by officials to be approximately 1.3 million MT, about two-thirds of which is for human consumption and the balance for animal feed. By late March, the republic had procured only 280,000 MT of grain, leaving a net import requirement of approximately one million MT. Kyrgyzstan's main crop is tobacco, approximately 92 percent or 55,000 MT of which is exported annually.

Despite the substantial grain deficit, food availability so far is not a problem. The markets are full of a wide variety of foodstuffs and the quality of produce is very high. The only items in short supply are vegetable oil and sugar, both of which are in high demand for Id al-Fitr celebrations but can be purchased only in limited quantities through a ration coupon system.

4. Officials throughout the republic have consistently stated they do not wish to receive food aid, but would appreciate technical assistance in the fields of:

-- improved seeds and cultivation techniques;
-- irrigation techniques (specifically, drip irrigation); and
-- food processing.

NEXT SEASON

5. Agricultural officials are generally optimistic about the 1992 cropping season, principally because of good rains to date and a three-meter cap of snow in the mountains.

6. However, Kyrgyzstan imports almost all of its agricultural inputs, and the availability of some of these is not yet assured.

7. Fertilizer, which has increased in price some 30 to 40 times over 1991 prices, is a major concern at this time. As a result of the price increases, Kyrgyzstan intends to reduce its fertilizer imports by 50 percent and to rely more heavily on the use of (domestic) organic fertilizers. The effect of this policy on 1992 crops cannot be foreseen at this time.

8. There are, otherwise, no discernable signs of stress in the agricultural sector. Despite a reported shortage of animal fodder, fodder was found to be readily available at affordable prices in the market and animal slaughter was reported to be occurring at the normal rate. There is no forward selling of crops by farmers or by commodity brokers.

9. Privatization in the agricultural sector has proceeded faster and further than in most other Central Asian republics. Although some farmers have clearly had outstanding success, the experience so far is reportedly uneven. No clear picture of the results will be possible until autumn 1992.

10. A high rate of population growth and the consequent pressure on land are among the major long term problems facing Kyrgyzstan.

ENTITLEMENT ISSUES

11. Kyrgyzstan's immediate problem is not a lack of food, but the price of food relative to income and the impact of high food prices on people with fixed incomes and families with many children.

12. Some 8,000 pensioners, mainly Slavic persons who live alone in Bishkek, are considered most "at risk" and are assisted by the Kyrgyzstan Red Crescent and the Fund of Mercy.

13. Virtually all Kyrgyz and other Central Asian elderly live with immediate or extended family, and are thus cushioned from the harshest consequences of economic turmoil.

14. All institutions are receiving adequate supplies of food at this time, and the government appears committed to assuring that institutions receive priority for food supplies. There are only 3,000 people in 13 institutions in all of Kyrgyzstan.

15. The Red Crescent, Fund of Mercy and Children's Fund provide virtually all social assistance to those in need -- the elderly, invalids and children in poverty. Each of these organizations is critically short of funding and has had to reduce caseload and staffing in light of financial realities. The Red Crescent, for example, serves only 4,000 of 10,000 who have registered, and has reduced nursing staff during the past three months from 500 to 380. All three organizations require and merit immediate financial support.

MIGRATION ISSUES

17. There has been a slow but steady out-migration of Europeans from Kyrgyzstan since the advent of glasnost and perestroika. The dissolution of the Soviet Union has accelerated the process, particularly of Germans -- about 75 percent of whom have registered to leave and 25 percent of whom have actually left -- and, to a lesser extent, Russians.

18. Ethnic groups in Kyrgyzstan tend to be concentrated in specific geographical regions and are, to a considerable extent, socially and economically stratified.

19. Short-term economic decline and privatization are both expected initially to impact negatively on the majority Kyrgyz community and, combined with rising Kyrgyz nationalism, could lead to increased ethnic tension and, possibly, inter-ethnic violence. If this were to occur, a rapid and massive out-migration of Russians and Ukrainians and, possibly non-Kyrgyz Central Asians, could be expected.

HUMANITARIAN ASSISTANCE TO KYRGYZSTAN: AN ASSESSMENT

INTRODUCTION

Kyrgyzstan is a small, mountainous republic of only 198,000 square kilometers, roughly the size of Indiana. The country is bordered by Kazakhstan to the north, Uzbekistan and Tajikistan to the west and south, and China to the east. It has a population of 4.5 million (1989). More than 90 percent of the population live on less than 19 percent of the plateau land; only 7-8 percent of the land is arable.

The country is divided into 6 oblasts (regions) -- Osh, Jallalabad, Narin, Tallas, Ishikur and Chuskh. Bishkek, the capital (population: 600,000) is situated in Chuskh Oblast. Ishikur, to the east, contains one of the largest lakes in the region, reputedly one of the bluest in the world.

The ethnic composition of the population is as follows:

Kyrgyz 54 percent
Russians 21 percent
Uzbeks 12 percent
Others (Ukrainians, Germans, Tatars, Kazakhs, Tajiks, etc.) 13 percent

FOOD AND AGRICULTURE

Current Food Situation:

Food availability in Kyrgyzstan is not a problem at this time. The markets are full of a wide variety of foodstuffs and the quality of produce is very high. The only items in short supply are vegetable oil and sugar. Both these items are rationed and may be purchased at subsidized prices via the coupon system (see below).

Economic difficulties have caused hardship through reduction of purchasing power and certain groups -- notably the elderly, those on fixed incomes and some children -- have been hard hit. People are coping by drawing down on reserve stocks. Some officials have suggested that if current trends persist, mortality and malnutrition could increase among the "at risk" groups. However, reports of an increase in animal slaughter due to shortages of fodder were not substantiated.

At this time there is no difference in food prices between the city and local markets. It was reported that the prices in the city used to be cheaper, but they are now the same as in the outlying local markets.

The coupon system in Kyrgyzstan allows families to purchase certain commodities at fixed subsidized prices. Coupons are provided for a period of three months at a time but may only be used in the month stamped on the coupon. Thus, it is impossible to hold the coupons for future use and selling; trading of coupons is very common. The following commodities may be purchased with coupons: oil, 0.5 liters/person/month; sugar, 300g; rice, 0.5k; vodka, 2 bottles; cigarettes, 3 packets; flour, 0.5k; sweets and soap.

The prices for basic commodities in Bishkek and Osh are shown in Annex 1. Prices are expected to increase in April and, although there is evidence of increased buying in the markets, it is not clear if this is due to panic buying and hoarding (see coping strategies) or to seasonal factors (i.e., the normal purchase of high quality foods during the Islamic holy month of Ramadan and the purchase of clothes in preparation for Id al Fitr).

Kyrgyzstan produces all of its essential domestic food requirements with the important exception of grain. Before the breakup of the Soviet Union, Kazakhstan shipped 700 to 800 thousand MT of grain to Kyrgyzstan. Due to drought in Autumn 1991 and bad weather during the winter, however, Kyrgyzstan's 1991-92 grain import requirements for human consumption and animal feed will total about 1.28 million MT. So far, only 280 thousand MT of this amount has been received (apparently U.S. wheat due Kyrgyzstan from central distributions agreed upon prior to the breakup of the Soviet Union), leaving a net import requirement of about one million MT. Kyrgyzstan authorities are hoping to receive some wheat from Kazakhstan but have also been exploring the possibility of (concessional) imports from Turkey and Canada. They note, however, that transport costs from Turkey (about $10/MT) and Canada (about $12/MT) must be paid for in hard currency that Kyrgyzstan does not have.

Kyrgyzstan traditionally imported raw sugar from Cuba which was refined locally and exported to other republics in the FSU. That arrangement is now in serious jeopardy since Cuba is unable to get from Kyrgyzstan the grain it used to receive from the USSR in return for the raw sugar. Unless a triangular arrangement can be worked out, the net result will be the closure of the Kyrgyzstan sugar refining plant and consequent unemployment (see below).

Kyrgyzstan's most important crop is tobacco, of which it produces about 55,000 MT annually. Local cigarette manufacture consumes only about three percent of the tobacco crop; the balance is exported to Russia as raw tobacco (and a portion of that re-imported as cigarettes). Local officials are eager to expand their cigarette industry in order to export a valuable finished product rather than the relatively cheap raw tobacco. Officials in Osh Oblast, which produces up to 40,000 MT of tobacco, are currently negotiating with firms in Turkey and Italy for the manufacture of

cigarettes in Osh. Raw tobacco exports for all of Kyrgyzstan in 1991 were valued at about R.750 million.

Other important crops in Kyrgyzstan include wool, cotton and meat. Approximately 20,000 MT of wool are produced annually. Cotton production (about 65,000 MT annually) serves mainly to meet domestic needs, though a small amount is exported to Russia, processed into thread and re-imported into Kyrgyzstan. (Osh Oblast has recently reached agreement with the John Deere Company for a five-year, $3 million project -- payable in hard currency -- to introduce drip irrigation, provide technical assistance and deliver certain agricultural equipment for the cultivation of cotton.)

Meat production amounts to about 16,000 MT per year, again mainly for domestic consumption, although a small amount is bartered directly with oblasts in Siberia for wood. In addition, Kyrgyzstan produces vegetables, fruit (some processed as juice), honey and walnuts, and barters substantial quantities of these in other republics for petroleum products, machinery and consumer goods. At least 60,000 MT of vegetables, 6,000 MT of grapes and 15,000 MT of apples, for example, are exported to Russia annually from Osh Oblast; particularly strong trade links are maintained between the oblasts of Osh and Omsk in western Siberia. Finally, Kyrgyzstan (specifically, Osh Oblast) rents out about 500 thousand hectares of grazing land during the summer months to herders from Uzbekistan, charging a nominal fee of R.15 to R.70 per hectare (depending on the quality of the pasture) for the season.

Agricultural Inputs:

Local agricultural officials are generally optimistic about achieving a good 1992 harvest, principally because of good rains to date and a three meter cap of snow in the mountains. However, with the exception of maize, tobacco, cotton and alfalfa seed -- all of which are produced locally -- Kyrgyzstan imports almost all of its agricultural inputs, and the availability of some critical inputs is not assured. Wheat seeds are imported from Kazakhstan, Russia, and Ukraine; soy bean and pea seeds come from Ukraine; potato seeds are from Belarus; and fertilizers are imported from Kazakhstan and Uzbekistan.

Of primary concern at this time is fertilizer. Local officials report that price of fertilizer has increased 30 to 40 times over 1991 prices. As a result, perhaps only about half as much fertilizer will be imported in 1992 as was imported in 1991. Surprisingly, agricultural officials in Osh view this as an essentially positive development. They believe that there is ample opportunity for increasing the use of organic fertilizers in Osh -- the oblast has 1.5 million head of sheep, 120,000 cattle, 70,000 horses, and about 12,500 swine -- and that, in any case, there had probably been substantial over-fertilization of crops in the past. They acknowledged, however, that the real effect of the decrease in

non-organic fertilizer imports will not be known until much later in the season.

Despite an unusually dry autumn, a prolonged winter and reports in the capital of severe fodder shortages in Osh, there is no evidence of stress among livestock herders in that area. Mixed fodder and maize were readily available at affordable -- though relatively high -- prices in the market, and local agricultural officials stated that slaughtering of animals was occurring at the normal rate. One (private) farmer stated he had actually increased his herd by about 14 percent over the previous year. There were also no indications of stress, such as the selling of future crops, in respect to other agricultural sectors.

(Kyrgyzstan's main non-agricultural export is hydro-electric power, approximately 6 million kilowatts of which is exported in about equal amounts to Kazakhstan and Uzbekistan at R.84 per kilowatt. These earnings are more than offset, however, by Kyrgyzstan's energy imports -- petrol from Russia and Kazakhstan, and natural gas from Turkmenistan via Uzbekistan.)

PRIVATIZATION

It is unclear whether privatization of agricultural land has been halted due to renewed governmental concerns about increasing ethnic tension. Privatization of one state farm in Osh Oblast led to armed ethnic conflict in June 1990. Privatization nevertheless continued at least until March 1992, when a presidential decree ordered the suspension of land distribution. (Local officials in Osh stated they were still prepared to receive and process requests for land, but may have been referring strictly to state farms where privatization was already underway.) Kyrgyzstan officials are currently concerned that the traditional mountain-dwelling, pastoral Kyrgyz will have less access to good arable land than the valley-dwelling, agricultural Uzbeks who reside predominantly in the southeast of the republic.

Whatever present policy and practice is regarding privatization, it is clear that Kyrgyzstan has proceeded further and faster on this issue than other republics visited. In some cases, at least, privatization has also achieved remarkable success. In Osh Oblast 37 state farms that were either losing money or achieving less than 15 percent profit are in the process of being privatized.

One (Uzbek) farmer visited -- no doubt the most successful in the area -- had begun cultivating 43 hectares along with seven other family members in 1990. This family's sheep and cattle herds had grown steadily since they began farming for profit. Production from their 23 hectares of apple orchard had increased from 28 MT in 1989 to 36 MT in 1990, and to 48 MT in 1991. They expect to

produce 60 MT in 1992; they attribute these dramatic gains to their exercising greater care in cultivating the same orchard for profit than they had when working for the state farm. This farming group paid R.25,000 (half of the enterprise's gross profit) in rent to the Oblast last year, and this year will pay about R.6,800 in "land tax" plus three percent of the gross profits. The percentage of profits due to the oblast could rise to five percent after two years and ultimately reach the maximum rate of ten percent. Both the oblast officials and the chief farmer appeared well pleased with this arrangement and the success of the enterprise.

According to oblast agricultural personnel, not all private farming efforts have been so successful. They stated that privatization had uneven results in the oblast so far, with much depending on the psychology of the farmer and on whether he was engaged in raising crops or livestock. In general, they said, the best opportunities exist for lowland agriculturalists but the greatest motivation was found in upland pastoralists, making it difficult to predict the likelihood of success prior to harvest in September.

ENTITLEMENT

Even more than in other areas of the former Soviet Union, the problem in Kyrgyzstan is not the immediate lack of food, but the price of food relative to income and the impact of high food prices on certain categories of people. The most vulnerable groups are the elderly, those on fixed incomes, and to a lesser extent children. Vulnerable groups currently receiving social assistance payments include pensioners, invalids, large families, veterans, widows, infants and school children. The government provides financial assistance to these groups, while the day to day needs, particularly of the elderly, are met by charitable organizations such as the Red Cross/Red Crescent and the Fund of Mercy.

Cost of Living/Income:

Average food prices for Bishkek and Osh are listed in Annex 1. Interviews with individuals in Bishkek suggested that many are spending at least 80 percent of their incomes on food. This is indicative of the difficulty of their circumstances.

Coping Strategies:

There are a number of ways of coping with the present economic situation. Cultivation of "kitchen" and dacha gardens is common in urban areas. Some of this produce is sold locally and the rest kept for household consumption. In rural areas, cows and chickens are kept. In one rural area visited near Osh, 80 percent of the local population had cows. The milk was sold in the market in Osh, thereby providing additional income as well as milk for the family.

Indeed, those families without cows were reported to have difficulties providing sufficient food for their children who, were more likely to be "weak." There was no evidence that livestock was being slaughtered at household level due to lack of fodder, or a need for additional money or food.

Food sharing is common between friends and relatives and, as in other republics, trading and selling of coupons is commonplace. Many people seem to be "panic buying" before the April price increases. Food hoarding is common; some households have fairly substantial amounts of grain stashed away. Many are currently eating food and vegetables from last year which have either been kept underground, such as grapes and pears, or pickled. Bargaining for food in the main city markets is usual and in some cases this results in a substantial reduction in the price.

Dr. Shapiro, the Deputy Minister of Health in Bishkek, summed up the situation when he said: "Today we are eating yesterday's bread, we are drinking yesterday's milk. Everything we have is from yesterday. Now we have to provide for the future before it is too late."

NUTRITION ISSUES

As in Kazakhstan, there are no reports of PEM. Nevertheless, there are some indicators which point to the possibility of increase in child malnutrition.

The incidence of low birth weight (< 2.5KG) ranges from 7-12 percent and is over 20 percent in some areas. This is a reflection of poor maternal nutrition. Also associated with poor maternal nutrition is an unusually high incidence of rickets among children. Although it proved difficult to obtain figures on the number of children with rickets, the head of the MCH (Maternal and Child Health) Department in the Ministry of Health (MOH) reported that up to 60 percent of children have vitamin D/calcium deficiency and some 15 percent have fully blown rickets. The MCH Department is attempting to address this problem through health education and promotion of family planning programs.

Anemia amongst women is common for the same reasons found in Kazakhstan (notably, frequent pregnancies, abortion and increased use of the IUD). Nutritional anemia is also widespread. Diets are low in iron and vitamin C (needed for absorption of iron). Furthermore, people in Kyrgyzstan drink tea in copious quantities, as well as a fair amount of alcohol, both of which severely interfere with iron absorption. Anemia is particularly pronounced among Kyrgyz and Uzbek women due to the high fertility rates in these populations. Iodine deficiency is now rarely found and salt is iodinized. Goiters are still reported in some isolated mountain regions.

Evidence suggests that 10-15 percent of children appearing at health facilities have hypotrophy or "failure to thrive". This is undoubtedly due to a combination of infectious diseases, dietary constraints and a short period of breast-feeding. The nutritional status of children may be severely affected by an epidemic of preventable infectious disease such as measles or TB. In this regard, the cessation of measles vaccine delivery and shortages of BCG are cause for concern.

MOH data suggest a mean breast-feeding duration of 6 months, but in many cases it is much shorter. Health personnel report that many women cannot breast-feed because of lack of milk, which they associate with anemia.

The MOH, together with the Ministry of Agriculture, is responsible for a network of 150 "Milk Kitchens" that serve some 100,000 children from birth to 2 years. These kitchens are located in polyclinics and in about 70 percent of the state and collective farms. Subsidized feeding programs are also offered in nursery schools and primary schools. These subsidized programs are facing imminent collapse due to lack of funds and milk imports. The MOH estimates that, although R.54 was planned per child for milk kitchens in 1991, the actual cost increased to R.104 in January 1992 and is expected to increase to R.1800 after the April price increases. In Osh there are 54 milk kitchens. Health officials in Osh have requested 550 MT of infant formula for these kitchens.

In 1991, the MOH and Ministry of Agriculture designed a five year plan for improving nutritional status among children. This has not been implemented due to lack of funds. Estimated cost of the program is R.245 million.

Nutritional monitoring is the responsibility of the Department of MCH in the MOH. Data on the weight and development of children is recorded at clinics until the child is 2 years old. Anthropometric data is not collected.

Recommendations:

-- A coordinated program to promote maternal nutrition and breast-feeding should be launched;

-- Infant formula should not be sent to Kyrgyzstan as part of humanitarian response;

-- If dry skim milk is sent to Kyrgyzstan, it should be used only in milk kitchens where clean water is available.

-- Monitoring of nutritional deficiencies should be built into the emergency health information system being developed by CDC, if possible.

SOCIAL PROTECTION

Target Groups:

The Elderly: There are 600,000 pensioners in Kyrgyzstan, approximately 15 percent of the population. Of these, 100,000 live in Bishkek. Pensions have been raised from an average of R.165 to R.350 in the early part of 1992 and were to have increased to R.600 on April 1, 1992. Those aged 80 and over receive an additional R.175. One third of pensioners (approximately 200,000) are reported to be living on the minimal pension of R.350. In addition, R 50 is provided for 2,500 pensioners deemed to be living in poverty.

Some 8,000 pensioners live alone, mostly in Bishkek. These pensioners are those reported to be most "at risk." The Ministry of Social Protection has a network of 921 social workers who visit 8,000 elderly in their homes; however, the bulk of assistance to this group is provided by the RC and the Fund of Mercy (see below).

Pensions are paid from a pension fund. Since May 1990, individuals have been required to pay 1 percent of their income to the fund. The Ministry intends to increase the fund by increasing the contributions from the commerce and trade sectors and not by increasing the 1 percent on personnel incomes.

Institutions: All institutions are receiving adequate supplies of food at this point in time, and the government seems committed to ensuring that institutions receive priority for all food supplies. There are currently 3,000 people in 13 institutions in Kyrgyzstan, including 3 homes for mentally retarded children, 7 homes for emotionally disturbed adults and 3 homes for the elderly.

The Ministry of Education is responsible for the care of orphaned and abused children. Anecdotal evidence suggests an increase in the numbers of abused children of alcoholic parents.

Child Benefit: A child benefit is paid to all families with children irrespective of the size of the family. R.350/yr is paid for children 0-1.5 years. Children between the ages of 1.5 and 16 yrs receive R.140.

Social Pension: A social pension of R.175 is paid to some invalids living at home and to families who have lost their main breadwinner. Again R.50 may be added if the Department of Social Protection deems them to be in need.

School Children: In previous years, all Soviet children were provided with breakfast at school. After the price increases of January 1992, the cost of providing the breakfast has gone up to R.10. A large proportion of children spend their whole day at school, since both parents are working, and therefore require two

meals a day. The state subsidy of R.6 per child for school meals does not meet the cost. UNICEF has suggested that this problem may be more severe in rural areas where 70 percent of the child population lives. The reasons for this are not clear, however. In the FSU, the central authorities provided subsidies to municipal authorities who were unable to finance the school feeding program from their own budgets. It is now very uncertain where the funds will come from.

The Unemployed: In 1991, the Kyrgyzstan government enacted a law which changes how assistance will be provided to the unemployed. Prior to 1991, there were no criteria to determine "unemployment" and who should be entitled to receive unemployment benefits.

At the present time there are only 323 people registered as unemployed and receiving benefits, although local officials estimate there are approximately 280,000 persons of working age (mainly housewives) who are not working but could theoretically be considered part of the labor pool. The minimum allowance for a registered unemployed person is 75 percent of his former salary. The upper limit on benefits corresponds to the average salary in the district.

The Department of Social Protection expects a large increase in the number of unemployed, from the present 323 to 100,000 by the end of 1992. Officials cite the following reasons for this expected increase:

- As a result of privatization, a number of non-profitable (previously state supported) plants will be reduced in size and the workers laid off;

- Similarly, the privatization of state and collective farms will increase agricultural efficiency and impel excess agricultural labor to seek jobs off the farm;

- Some enterprises such as the sugar mill will be forced to close down due to a lack of raw material; and,

- Movement to a market economy will make certain government departments obsolete, resulting in a reduction of force within the government as a whole.

Government Policy/Plans:

In terms of policy, the government response to the economic crisis includes both intermediate and long-term measures. Officials acknowledge that the process of moving toward a market economy, privatization, and deregulation will be long term and in the intervening period the basic human needs of the vulnerable groups will require special attention.

Pensions, as noted above, are slated to increase in April. Child benefit allowances reportedly will increase substantially over 1991 levels (new amount unknown). Nevertheless, the real income of pensioners and large families has declined sharply. The decline would be even more evident if it were not for the government subsidies on bread, milk, eggs and chicken. For example, bread prices have risen four fold since January 1992; it is unlikely that the government can continue to subsidize prices given the current budget deficit of R.1.6 billion. Health, education and social protection (pensions and child benefits), accounted for approximately 54 percent of the national budget in 1991. This is expected to increase to 65 percent in 1992. This level of social expenditure is not sustainable. However, Kyrgyzstan officials have a blind faith that money will always be available for pensions. The government has started to consider alternative systems for social welfare.

Recommendations:

In the short term, it is likely that the government will be forced to move away from providing general allowances for all and to move toward targeting the most vulnerable groups. The IMF and the World Bank are being encouraged to provide technical assistance regarding how best to provide for the vulnerable groups.

The pressure on social welfare system institutions to meet human needs is increasing dramatically. Support from outside organizations to increase performance capacity, e.g., positive response from donors to the International Federation of the Red Cross/Red Crescent appeal for Central Asia, would bear positive results.

NON GOVERNMENTAL ASSISTANCE

The Red Cross/Red Crescent Society:

The RC in Kyrgyzstan focuses mainly on providing assistance to the elderly. Approximately 90 percent of RC funds are spent on assistance to the elderly. The other 10 percent is spent on children and invalids. The RC have 10,000 old people registered, but is only able to provide assistance to 4,000. Individuals are referred to the RC through polyclinics, the Ministry of Social Protection or by neighbors. The RC often assumes responsibility for an elderly person when he/she becomes sick or immobile and the Ministry of Social Protection social workers can no longer care for him/her. Once attached to the RC, the individual is cared for until death.

The elderly are cared for in their homes by "Nurses of Mercy". The nurses provide medical aid and other home helpers assist with shopping, cooking and cleaning. Hot meals are provided daily on a

home delivery basis (Meals on Wheels). Last year there were 500 nurses; this has now been reduced to 380, mostly because few people are willing to work at the current salary levels of 250 R/month. The RC is unable to increase these salary levels due to budget constraints.

The director of the RC is pessimistic about the future of the Nurses of Mercy service due to financial constraints. All plans to develop the service have been put on hold and the RC is unsure whether it can even keep the service running. The RC needs .5 million rubles this year to continue the program. Currently the account stands at R.500,000. Funds come from individual donations and large fund raising schemes. The director of the RC is against institutional care and planned to visit the president to inform him of the difficulties of continuing the home-based programs. She also mentioned that any future humanitarian assistance should come directly to the RC and not to the government, since the government will not target the aid effectively.

The RC attempts to maintain a very basic reserve for emergencies. At the time of our visit, these stocks are wholly inadequate, consisting of some 100 blankets and sheets, and a small supply of bandages. There were no drugs or food supplies. Following the Osh uprising in March 1990, the RC was able to provide assistance within 4 days largely due to public donations. Based on this experience, the RC established the baseline budget amount needed to help 4,000 people in the event of a natural disaster. The amount quoted was R.3 million.

In discussing the use of the B-rations, the director of the RC noted how unsuitable these were for elderly people and suggested that they be used as a food reserve in case of an emergency.

The Fund of Mercy:

The Fund of Mercy has branches in all 6 oblasts. Each fund is responsible for its own budget and spending. The fund mainly focuses on the elderly and works through local cooperatives. In Bishkek, the fund keeps lists of the most vulnerable elderly. There are now 2,000 people on the list, but many are rejected and only those with no relatives or support qualify for assistance. The fund currently assists 200 individuals. Of these, 130 are provided free meals in 5 *stolovayas* and a further 70 are assisted in their homes with a daily meal on wheels. The fund has a close relationship with the Red Crescent in order to assure that their services are complementary.

The Fund is having difficulty meeting its costs. Executives estimate that R.3 million will be needed this year at present price levels for the Republic. The cost of providing meals in the *stolovayas* has increased from R.2 in 1991 to R.15 today. The money comes from lotteries, fundraising activities in collaboration with

local enterprises, and donations. Local churches also donate. The German Baptist church recently donated 50 wheelchairs, but many more are needed.

The Children's Fund:

The Children's Fund was established 3.5 years ago and has an annual budget of R. 2.5 million. Funds are raised through private contributions, lottery tickets and other events. The Fund assists about 25,000 orphaned, disabled and mentally retarded children throughout the republic.

PUBLIC HEALTH

Basic Statistics:

Crude birth rate 31/1000
Crude death rate 7/1000
Infant mortality rate 38/1000
Maternal mortality rate 76/100.000 live births
TFR (Total Fertility Rate) 3.69 per woman -- TFR in urban areas is 2.49; TFR in rural areas 4.63

General Health Situation:

Rapid economic changes have undoubtedly unleashed a serious health crisis. The health system at all levels is well-staffed and functions satisfactorily. However, the system is under stress due to a shortage of drugs and vaccines, limited supplies and outdated equipment. Staff at some health facilities commented that some may have to find alternative employment due to the reduced purchasing power of health worker salaries.

The main threats to child health are infectious diseases and associated nutritional deficiencies. The Department of Maternal and Child Health predicts a large increase in infectious diseases this year, especially diarrheal disease in the summer months due to poor quality drinking water and shortage of drugs, vaccines and supplies.

Acute respiratory infections are reported to be the major cause of infant deaths (49 percent); diarrheal diseases are the second cause of death. Oral Rehydration Salts (ORS) are reported to be well used in the population and supplies are reported to be plentiful. Antibiotics are frequently used for treating even mild diarrhea.

Hepatitis A is very common, particularly among children. Health officials suggest Hepatitis B is on the increase and is related to poor sterilization practices.

Tuberculosis is a widespread problem. In Bishkek, TB is reported to be exacerbated by high air pollution levels. Environmental pollution is also reported to cause allergies and to affect the normal development of children. MOH officials note that they have no precise way of measuring the connection between ecology and disease and would welcome advice. There is a tendency among health officials to blame a multitude of ills on the environment, yet the relationship between the environment and health has not been clearly established.

Family Planning:

The contraceptive prevalence rate is reported to be only 22 percent. The IUD is the most common method and often the only one available. MCH officials report a shortfall in supply of IUDs, especially the copper-tipped type from Finland. The IUDs made in Kazan, Russia (Tatarstan) are not promoted because of adverse side effects. A request for 130,000 imported IUDs was made, but later withdrawn due to lack of funds. Early in 1992, India donated 3 million condoms as humanitarian assistance.

In 1991, 600,000 abortions were reported; this figure seems high, given that the total population of Kyrgyzstan is only 4.5 million. According to health officials, the number of abortions is decreasing primarily because of a family planning campaign launched in 1990. However, with price increases and the shortage of IUDs, the number of abortions is likely to increase once again.

Immunization Requirements:

Immunization coverage levels have declined recently and the prospects for disease outbreaks remains high in the near future, particularly measles. This is due to lack of vaccine stocks at all levels.

The MOH is willing to target emergency vaccine supplies to children less than 2 years old and has requested 180,000 doses of measles vaccine. UNICEF has recently provided 70,000 doses and a request for a further 100,000 doses to OFDA/RD-H.

Sufficient current stocks and willingness to purchase DPT vaccine are present. The levels of polio vaccine is dangerously low, but 160,000 Russian doses are expected in the near future for which no donor assistance is required.

Disposable syringes and needles are in very short supply. An emergency procurement of one million disposable needles/syringes out of an MOH request for two million has been proposed. Serious deficiencies in the cold chain have been identified.

Technical assistance needs:

-- cold chain training and logistics to support immunization efforts;

-- health information systems (including computerized EPI information systems).

NATIONALITIES AND MIGRATION

According to official 1990 census data, the population of Kyrgyzstan comprises more than 80 "nationalities," with ethnic Kyrgyz accounting for only 54 percent of the total population of 4.5 million. Other principal groups include Russians (21 percent), Uzbeks (12 percent), Ukrainians (2.4 percent), Germans (2.2 percent at the time of the census, less now), and Tatars (1.5 percent). Kazakhs, Tajiks, Azeris, Belarussians, Koreans, Turks, Jews, and others comprise less than one percent each. As in Kazakhstan, ethnic groups often tend to be concentrated in specific regions and are, to a considerable extent, socially and economically stratified.

Approximately 60 percent of the 2.4 million Kyrgyz in Kyrgyzstan reside in rural areas, principally in the mountainous areas throughout the republic, and are engaged in livestock rearing. The remaining 40 percent live in urban industrial areas (130,00 reside in Bishkek, for example) where they are generally employed as low-skilled labor in construction and manufacturing, and in low-paying jobs in education and the arts. Kyrgyz urbanization is a relatively recent phenomenon. Kyrgyz moved into the cities in the 1970s as a rapid increase in the size of sheep herds (dictated by Moscow) resulted in the equally rapid depletion of pasturelands. This forced many younger Kyrgyz to abandon their homelands and, disdaining cultivation in the lowlands, seek their livelihood in the cities. Kyrgyz also, dominate public administration throughout the republic.

Russians came to Kyrgyzstan in four major waves: the first at the turn of the century to administer for the Tsarist Government; the second during the famine of 1920-23; the third during World War II; and the fourth during the large scale construction of industrial and military complexes in the early 1950s. The republic's 917,000 Russians reside mainly in urban areas -- in and around Bishkek, Issikul, and Osh -- and often hold highly skilled technical and managerial positions in industry. Those who reside in rural areas are generally employed as agricultural technicians or managers.

Uzbeks, who number about 580,000, live almost entirely in the two southeastern oblasts of Osh and Jallalabad, where they make up about 40 percent of the total population. The Uzbeks are primarily

engaged in agriculture but, unlike the Kyrgyz, are generally cultivators rather than pastoralists and live in the fertile valleys. Many emigrated from Uzbekistan because of increasing cultivation of cotton in Osh and Jallalabad (again, dictated by Moscow) at the same time that Kyrgyz were leaving the mountainous areas of those oblasts to live in the cities. Uzbeks are also heavily involved in small trade.

This geographical, economic and social stratification -- combined with a rise in Kyrgyz nationalism and a rapidly changing economic situation -- has led to significant tension among the main ethnic groups. Privatization of one state farm in Osh Oblast led to armed ethnic conflict in June 1990. Ethnic Kyrgyz protested that land distributions had favored ethnic Uzbeks. In response, party leaders too hastily over-ruled the existing allocations, thereby enraging the Uzbek community. Open conflict between the two communities raged for five days, resulting in a score of deaths. The towns of Osh and Uzgen remained under a limited curfew for 17 months, until November 1991.

The following developments are expected to have a negative impact on the Kyrgyz community, at least in the short term, and consequently, to lead to increased inter-communal tension:

- continued privatization of agricultural land;

- privatization of manufacturing enterprises, retail outlets and housing;

- an expected contraction in industry due to a shortage of raw materials;

- a reduction in the government work force.

Kyrgyz are very sensitive to their position as an economic underclass in their motherland, but Uzbeks are better positioned to take advantage of privatization opportunities in agriculture and in retail trade. Similarly, Russians are better positioned to obtain urban housing and, because of their technical skills, to be relatively protected from contractions in the modest industrial economy and from work force reductions as plants are privatized. Kyrgyz, on the other hand, have relatively few agricultural or industrial interests or skills, and, because of their disproportionate representation in public administration, are particularly vulnerable to being laid off in an already contracting government and economy. In March 1991, only 326 persons were registered with the Ministry of Social Protection as unemployed, but ministry officials expect that number to increase to 100,000 within one year. The vast majority of those are likely to be Kyrgyz.

However, prolonged economic difficulties -- or the closure, rather than the reduction in size, of manufacturing plants -- will affect the Russian community most severely, and will probably result in substantial out-migration of this group. Likewise, another actual outbreak of inter-ethnic violence or simply a heavy-handed implementation of nationalistic legislation (such as language law requirements) could result in sizable out-migration by both Russians and Uzbeks. Kyrgyzstan is a potentially explosive situation and substantial, sudden out-migration of both Russians and Uzbeks could occur in the event of inter-ethnic conflict. Uzbek out-migration would likely result in corresponding difficulties and consequent migration of the even larger number of Kyrgyz presently living in Uzbekistan.

Other groups of interest in Kyrgyzstan include Germans, Meskhetian Turks and Jews. The Germans were forcibly relocated to Kyrgyzstan and other Central Asian Republics around 1940 and are now seizing the opportunity to repatriate to Germany. Their departure is leaving gaps in certain sectors of the economy, particularly in the mechanical (repair) and engineering fields. The Meskhetian Turks were ousted from Georgia and Azerbaijan in 1944-45, resided initially in Uzbekistan, and then fled in 1989 because of violent disputes with the local community. A portion of these -- perhaps 10,000 to 12,000 people -- went to Kyrgyzstan, where they settled in Osh Oblast and to the east of Bishkek.

The Meskhetian Turks are believed to be somewhat disaffected, and eager to return to Turkey, but Turkey is reportedly unwilling to receive them. Jews are taking advantage of opportunities to leave for Israel and the United States, and leaving some gaps in the health service sector.

AVERAGE FOOD PRICES: BISHKEK AND OSH MARCH 1992

	FREE MARKET		STATE STORE
	Osh	Bishkek	Bishkek Only
Bread	2/Nan	2/Nan	2.50/850g loaf
Rice	27(Brown)	25	-
Wheat Grain	4	4	-
Wheat Flour	8	8	4.8
Maize Flour	-	4	3.3
Maize	3.5	-	-
Potatoes	6	6	4.8
Noodles	15/bunch	10	-
Barley	3.5	-	4.8
Chicken	40	40	42
Beef	60	45	-
Sheep	80	55	-
Pork	50	45	-
Sausage	74	65	-
Horse	60	-	-
Fish	-	25(Harp)	16(frozen white)
Fish (tinned)	-	-	19/250g
Apples	45	40	25
Pears	35	35	-
Tangerine	60	60	-
Tomatoes	80	40	45
Spring onions	2.5/bunch	3	3
Carrots	2	4	3.8
White Radish	2	3	2.3
cabbage	5	8	7.7
Onions	4	5	4.5
Sugar beets	3	3	3
Milk	3	5	-
Cream	30	70	-
Curd	2	2	-
Butter	100	110	107
Eggs	1.8/egg	1/egg	1.8/egg
Oil	-	-	15/l
Sugar	-	-	7.2
Tea	22/300g	-	56/200g(imported)
Honey	90	80	-
Baby Formulae			6.90/400g box
Vodka	83/bottle		47/bottle
Animal Fodder	3	-	-

1) All prices in Kilos unless otherwise stated
2) Prices vary according to quality, bargaining can reduce price

SALARY LEVELS IN RUBLES: BISHKEK

SECTOR	1992*
Pension	350
Education	600 - 1000
Health	500 - 1000
Admin	500 - 1000
Factory Worker	1200 - 1500
Agriculture	600 - 1500

* Salary levels were increased January 1992 and again in February (amount unknown).

MINIMAL COSTS OF LIVING FOR A FAMILY OF FOUR: BISHKEK 1992

	Costs /Rubles/month
Rent	20/state Apt
Food	800
T.V.,electricity, Utilities	40
Other (Clothes, soap, transport)	100+
Total	960

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HUMANITARIAN ASSISTANCE REQUIREMENTS: Tajikistan

SUMMARY OF MAIN POINTS

Food Availability:

1. Tajikistan is a poor country with a monoculture agricultural economy (cotton). Despite dependence on cotton, it could be self-sufficient in food. For the time being, the country does not have a food shortage; most people have access to food from relatives in the countryside or grow vegetables on their own small plots.

The country did import grain last year for both human and animal consumption. Despite a weak market for cotton and lack of payment for last year's crop, Tajikistan plans to concentrate on cotton production again this year and to buy the food it needs with the proceeds from sales.

2. Technical assistance would be the most appropriate form of aid in the short term. Specific needs are:

- Agricultural planning (for the transition period)
- Food storage
- Food processing
- Food pricing

Next Season:

3. Despite talk of reform, the agricultural system is still top heavy, and agricultural planning is still centralized.

4. Seeds do not seem to be a problem, but fertilizers and pesticides are in short supply.

5. There are some indications of strain in the 1992 planting season. For example, many farmers have not been paid since October 1991 for cotton they provided to Russia. The government is planning to increase next year's harvest without offering suitable incentives to the producers.

6. There are few significant changes in direction in the agricultural sector, though the government claims to be moving toward privatization of farms. The Ministry of Agriculture claims to be increasing the amount of wheat planted, but state farms do not seem to have received the new instructions.

Entitlement Issues:

7. All foods normally consumed are available. Though food prices were lower in Tajikistan than in other countries, prices are expensive by the usual standards, especially for those on fixed incomes. Most people are sustaining themselves by bartering or obtaining food from family members who live in rural areas; Tajik families tend to be larger than other Central Asian families (and Russian ones, too), and food sharing is traditional.

8. The Tajikistan social protection system is the same basic system as the one in Russia. The system is facing a budget crisis, and the government is asking businesses to contribute to help the elderly.

9. Costs of living are about 15 percent higher than the lowest pension.

10. There are only a handful of retirement homes (six), and they have few Tajik or Muslim residents -- by tradition, these families take care of their elderly. Most of the pensioners receiving assistance are Russians or other Slavic nationalities.

11. Technical assistance needs include:

- Management of funds
- Investment strategies for social security funds
- Information on Western models of support

Migration Issues:

12. There has been little out-migration except for Germans. Many Russians say they will leave if Islamic fundamentalism takes hold. Recent reports suggest that as many as one-third of the Slavic population may have already left the country.

13. A new law making Tajik the official language has given rise to fears among the non-Tajik population that their role in the nation is threatened. Russians feel especially pressured.

14. Tajik nationalism is on the increase. At the same time, there is concern over the treatment of Tajiks in neighboring Uzbekistan. Some observers believe that tensions between the two communities might worsen.

15. Populations to watch: Uzbeks, Russians

INTRODUCTION

Tajikistan is a small, landlocked country on the southern edge of the Commonwealth of Independent States. With a population of approximately 5.2 million people, it is one of the least developed states of the former Soviet Union.

Geography:

Mountains cover 93 percent of Tajikstan's total area. This has had a significant effect on the development of the country and the socio-political orientation of the population. The high mountains have isolated Tajikistan from the other Central Asian Republics. Because of ethnic and linguistic ties, they are closer than the other Central Asian states to Afghanistan and Iran, with whom they share Dori, Farsi, and Tajik languages.

There are four main valleys in Tajikistan: the Hissar, which stretches from Dushanbe westward; the Kujulyab, which is to the southeast of Dushanbe; the Kurgantube, which is the largest and continues south of Dushanbe; and the Khodgent (formerly the Leninovad Valley), which reaches north to Uzbekistan and is the most developed part of the country. Every leader of the republic has come from the Khodgent valley, which at one time was part of the Russian Empire. It is isolated from the rest of Tajikistan by the high Pamir mountain range to the south and becomes unreachable by road between October and May due to heavy snowfall. During the winter, all travel to Khodgent must be via air or a long loop by road or train around the mountains to the west through Uzbekistan.

Population:

There are 5.2 million people in Tajikistan. The majority are Tajiks (62 percent), but there are significant numbers of other nationalities including Uzbeks (24 percent), Russians (eight percent), Kyrgyz, and Turkmens.

The average size of a family is nine. Among the population, some 2.3 million are women and 1.2 million are children under the age of 14. The birth rate is the highest in the former Soviet Union at 43 births per 1,000 women.

Tajikistan has the second lowest average annual income level in the former USSR. It also has one of the highest infant mortality rates in the CIS, which is attributed to the poor sanitary conditions and the practice of bottle feeding. The country is one of the least urbanized of the former Soviet Union; 67 percent of the population lives in rural areas. The Tajiks rank 16th (of 17 Soviet nationalities) in the number of students in universities.

FOOD AND AGRICULTURE

The agricultural system in Tajikistan is typical of other Central Asian republics: food has been subordinated to cotton production. Like its neighbors, the country has been left with a legacy of polluted water, increasingly saline soils, and an immediate reliance on exports to a weak market. Ironically, the country is a net food importer when it could be a food exporter.

In the agricultural sector, cotton is, and for the near future, will be, king. The country also exports onions, potatoes, tomatoes, radishes, carrots, melons, grapes, and wine, but in terms of cash, they are a relatively minor component of the agricultural sector. Tajikistan imports grain and most processed foods.

Meat, flour, sugar, and cooking oil are rationed in a country that should be self-sufficient, if not a net-exporter in these items. Very few sugar beets are raised. Sugar refineries, flour mills, and textile factories are limited. There is one cotton-seed oil processing plant. Wheat represents only 38 percent of the total hectares cultivated.

Despite the reliance on cotton, food is not in short supply at present, though, as in the other newly independent states, it is relatively expensive for the consumer. There is no immediate need to import food for humanitarian needs.

Land Use:

Of the 809,300 hectares of arable land (seven percent of the total land) in Tajikistan in 1991, 300,000 were sown in cotton, 226,800 in grain, 33,900 in vegetables, 8,800 in watermelons, and 213,800 was left to seed.

Approximately 560,400 hectares are irrigated. There were also 424,800 hectares of range land and 639,900 hectares of "improved" rangeland. There are currently 200 collective farms and 400 state farms; there are no private farms yet.

1991 Production:

The Ministry of Agriculture reported that 830,000 tons of cotton were harvested in 1991, of which 61,000 were exported to Russia. The grain harvest was approximately 300,000 tons, down from the five-year average of 310,000 (60 centares/hectare corn and 30 centares/hectare wheat in one district.) Approximately 270,000 tons of the harvest was used for fodder and 28,000 for human consumption. Tajikistan imported one million tons of grain, mostly from Kazakhstan, 200,000 of which was fodder to cover its needs in 1991.

The ministry reported 73,631 tons of meat (live weight) were produced, down from the 1988 production of 111,000 tons. Egg yield was only 350 million compared to the 525 million average between 1985 and 1990. This was reportedly caused by the lack of poultry feed that used to be provided by other republics. On-farm losses in vegetable produce amounted to only six to seven percent.

In one district, the 5,000 producing milk cows gave only 22 tons of milk/day, or 2.5 liters/cow/day. This low level of production was attributed to lack of feed.

1992 Forecast:

The crop yield for 1992 is expected to be 900,000 tons of cotton, 400,000 to 500,000 tons of grain; the 1991 production should be repeated for eggs, dairy, and meat. (By the year 2000, the Ministry of Agriculture hopes to produce one million tons of cotton.) The government recently announced that it plans for Tajikistan to be self-sufficient in wheat production, although cotton will still be encouraged as a main foreign exchange earner. Farmers in some areas are being told by the state to plant wheat on rangeland in the foothills near their farms. All this wheat crop will be sold to the state. The Kujulyab district will begin to grow grain this year and hopes to produce 300,000 tons of wheat a year in two to three years. Hybrid corn seed (which is exchanged for cotton) has not yet arrived from Yugoslavia, but the Ministry of Agriculture believes it will be sent.

Tajikistan needs 1.4 million tons of grain for 1992, including one million for human consumption. The Ministry of Agriculture wants to meet 50 percent of the republic's grain needs by increasing the hectares of wheat planted but will not be able to do so with the current harvest predictions. The central government invested (an additional) R.500,000 to R.600,000 this year for the 1992 harvest. Importing grain from other republics will be difficult since hard currency is increasingly needed for most exchanges.

As in other republics, the lack of storage facilities is a major limiting factor. In Tajikistan, however, the situation seems even more severe. Every state farm stores some grain and vegetables for its own consumption, and there are district and railway storage facilities belonging to the Ministry of Bread and Grain. However, the entire republic has a shortage of storage facilities as a result of many years of exporting the majority of its raw produce from the farms immediately to Russia for processing. The lack of storage facilities will be a major obstacle to developing free markets. As in other republics, most crops are taken immediately from the farm to the state storage or processing facility, negating any possibility of farms selling their own products or holding for higher prices.

Another consequence of the old system is the lack of processing facilities. Only 10 percent, about 27,000 tons, of Tajikistan's cotton is processed in-country. Most exports from the republic have been in the raw material state. For example, the republic has one big cotton-seed oil processing plant in Dushanbe. In the future, the ministry plans to have one in every district and collective farm (though that seems excessive).

Agricultural Inputs:

Seeds do not appear to be a problem for any crop except corn; it is questionable whether the government will be able to obtain hybrid seeds from Yugoslavia given the problems that are occurring there (though the Ministry of Agriculture didn't seem worried).

Cotton varieties are hybrids: Uzbek #3 and Khirghiz #3. Corn is also a hybrid imported from Yugoslavia that can produce up to 100 centares/hectare. Vegetables are natural varieties; wheat is mixed.

Tajikistan has two plants that produce carbamate fertilizers and supply most of its fertilizer needs, one in Kalinabad and one in the Yavan/Kurgan Tyube region. The Yavan district uses 800 kilos/hectare of phosphates and 500 kilos/hectare of carbamates for cotton. It also uses 150 kilos/hectare of carbamates and 150 kilos/hectare of phosphates (imported from Russia) for wheat. All herbicides and insecticides are imported.

Although there are no major shortages of fertilizer, there is a scarcity of cotton defoliants. A chemical plant in the Yavan district, which is a primary cotton-producing area, has all the faculties to produce defoliants without converting machinery. By simply changing chemical inputs, the plant could produce enough to meet the country's needs.

There are no state fuel reserves for the farms. Most of the republic's fuel comes from Russia and Turkmenistan. Tajikistan has asked Russia for assistance in regard to fuel and has received some from other countries already. Priority will be given to farmers in the case of a fuel shortage.

In the Yavan district and possibly in other areas as well, some of the farmers have not been paid their salaries since October. They are receiving only small amounts on an irregular basis and are living primarily off savings. This is cause for alarm (especially since farm managers at all levels were apparently receiving their salaries). Reportedly, the reason for stopping payment was that Russia did not pay Tajikistan for any of the cotton it took in 1991. Consequently, the state does not have the money to pay the farmers. Despite not being paid, the farmers plan to continue to plant cotton this year. Of this year's expected crop, 70 percent is destined for the state. The other 30 percent

could be sold to other buyers, although at present, there are none -- the state still holds a monopoly on cotton. The farmers are surprisingly willing to go along with the plans, but there is some question concerning how long they will be willing to go without pay.

Cotton pricing and production quotas are counterproductive. The state sets quotas for the cotton and pays the farms a low, flat rate for the cotton produced but no bonuses for amounts over the quota. On one farm, for example, the farmers harvested only enough cotton to cover the state contract and plowed the rest under since harvesting it would require more work and they would receive little for it. Instead, those hectares could have been planted in wheat or vegetables and used for barter or immediate consumption on the farm. Cotton has a long growing season and is harvested only once a year while grain can have two to three harvests.

Observations:

Although there is no need for concern about the ability of the Tajik people to feed themselves, there are some serious problems with the current agricultural system. First, while cotton is the main crop grown, huge amounts of wheat are imported. This is not so much because the price for cotton is higher than for wheat (which, per ton, it is) but because that is what the old, centrally directed system dictated.

Since the majority of all crops are exported unprocessed, first from the farms, then from the districts, **oblasts** and country, Tajikistan has had to re-import its own products in a processed form (flour, oil, fabric, etc.) Thus, the country has had little chance to get more value from its products. It is unclear how the country will fare in the international cotton market as Central Asian cotton is not generally considered to be of high quality. If the price of cotton remains higher than grain, if buyers can be found who will pay in hard currency, or if sufficient barter arrangements can be made with neighboring countries, it could make sense for Tajikistan to maintain relatively high production. Nevertheless, given the instability of prices (not to mention the tumultuous political climate) it seems important to increase the country's self-sufficiency in food production.

PRIVATIZATION

Agriculture:

No privatization of farms has taken place, although the Tajikistan Supreme Soviet just passed a law stating that *unproductive* farms will be sold to private entities. To encourage

productivity on the newly private farms, the government will impose a tax system based on level of output. If a farm is unproductive, the government will first set fines and then take the land back.

There seems to be much resistance to privatization from within the state farm system. When one farm brigade (a group of workers on a section of a state farm) asked to buy a portion of their farm (as they are legally entitled to do under the new privatization laws), they were turned down. The brigade leaders said that, for now, they have no legal recourse.

Because of the high population growth rate and the limited amount of arable land, privatization of the farms will require careful planning. Otherwise, many people could receive parcels so small that they are unprofitable, especially if the state farms were to be divided evenly among the workers. (On one farm visited, each person would only receive .7 hectares if the land were divided.) However, the traditional Tajik family structures, which have remained largely intact during the socialist period, could provide an answer. Under the Tajik system, family clans work the land together, pooling their resources. Several individuals and/or families could combine their plots to get a workable amount of land.

Industry:

Tajikistan is just beginning to privatize its 400 different industries. Government officials began studying the concept at the end of 1991, in an effort to understand the process before attempting to act. They started with trade, service, and small enterprises and have already sold a carpet-making plant, a stocking factory, and a confectionery for a total of R.100 million. After the small industries, which the Privatization Board expects to finish by the end of 1992, the government will begin privatizing the larger ones, such as the aluminum plant; 40 percent will be sold to foreign investors.

Government officials are currently considering creating laws to manage private enterprises, such as the development of share ownership, bankruptcy laws, and the privatization of land. The board is also looking at how to appraise businesses and has written a book outlining the procedures for assigning values to various aspects of an enterprise (although they are already encountering people who do not agree with their assessments). The government plans to give priority to buyers with plans to increase the number of employees. This approach is designed to encourage full employment, but it may be unrealistic since most businesses are grossly over-staffed. Employees are given priority in the purchase of a business. They will be able to apply for credit at 20 to 30 percent, though some may be given interest-free loans for two to three years.

A committee is being formed to deal with the sale of land. The Privatization Board predicts difficulties in this endeavor due to the large rural population and the small amount of arable land. As mentioned earlier, there is also strong resistance from collective farm officials.

Observations:

The Privatization Board is studying the process of privatization, but does not seem to have much enthusiasm for it. This lack of excitement may come from a misunderstanding of the process, or it may come from reluctance to change and fear of the unknown -- and of continued hardships that have recently become acute. Many officials commented that once the property and businesses are in the hands of private individuals, the privatization process is complete. They expect the new owners to follow central plans just as the old ones did. At a fundamental level, they do not understand the overall concepts of private enterprise and free-market economies.

The Privatization Board, given appropriate guidelines, could become an asset to those seeking greater understanding of this new system. It has the potential to be a strong, guiding power, encouraging positive changes and discouraging activities that may be damaging. On the other hand, if its members continue to act in ignorance, it could create monsters that may be difficult to eliminate later. The United States should invest in training, exchanges with U.S. businesses, and other assistance that would provide the Board with the tools it needs to guide the privatization process in a constructive manner.

A Possible Demonstration of Privatization:

A prime opportunity for privatization that could be a model for the country is the chemical plant in the Yavan district. It has 4,000 employees, is still state owned, and is less productive than it could be. The plant manufactures chlorine powder, chlorine liquid, soda, freon, and calcium chlorate (detergent). It has another facility to produce chlorine gas from liquid chlorine, which is partially constructed but awaiting further funding to complete. It obtains all its raw materials from within the country, including salt from a local salt mine and electric power from a nearby hydroelectric plant, and imports only gas (from Uzbekistan) and iron.

The plant is located in the heart of a cotton-producing district that currently imports all of its cotton defoliants. By revising its chemical inputs, the plant could switch to producing powdered defoliants for cotton production and with a minor conversion could produce liquid defoliants.

Chlorine tablets are in high demand throughout the former Soviet Union for water purification. The plant can not keep up with the demand and is operating at full capacity. Plant managers have plans to produce chlorine granules for this purpose in the future and could convert other portions of the plant, as needed.

With small inputs of technical assistance and business guidance, this plant could become a successful employee-owned business contributing to the agricultural sector domestically and earning foreign exchange. (Germany, Poland, Britain, and India have already sent delegations to explore joint ventures.) In addition to technical assistance in operations and business development, environmental consultants should be engaged to study more efficient processing of hazardous wastes. The plant now uses a 42-hectare settling pond for its contaminated water.

ENTITLEMENT ISSUES

Approximately 60 percent of the people in Tajikistan live in rural areas. The vast majority live in the agricultural zones of the valleys, since the rest of Tajikistan is virtually uninhabitable during the winter. Many people have gardens and raise their own produce, which covers a large portion of their needs. There are no *stolovayas* outside of the city, though each rayon "takes care of its own." The Ministry of Social Protection pays the Ministry of Communication to deliver pensions via the post office to those living in rural areas.

The rapid increase in population has had several effects on the standard of living of most Tajiks. First, the steady and rapid increases in food prices are affecting the large families' ability to buy enough food for all their members. The government currently encourages large families by giving extra assistance for each additional member of the household. Second, there is an growing housing shortage in Dushanbe, evident in the poor living conditions in certain parts of the city and the numerous large apartment buildings under construction.

SOCIAL PROTECTION

There are over 540,000 pensioners in Tajikistan receiving one of 13 categories of pensions. The lowest pension is 340 rubles/month, the highest R.408. The retirement age, special categories, and other specifics are similar to other republics.

There are only six *internats* (welfare institutions) nationwide supporting 1,500 people. The estimated cost is R.1,000/person/month. The small number of houses is due to the fact that Tajiks, like other Central Asian groups, traditionally take care of their elderly within the family structure. Tajik custom requires the offspring to care for aging parents. Therefore, the majority of people in *internats* are non-Tajiks, mostly Russians.

In Dushanbe, a city of 680,000, there are 5,721 pensioners who live in their own houses but who need extra assistance. The Ministry of Social Protection, the *rayon*, districts and cities, private businesses, and the Red Crescent all contribute to the welfare of the pensioners.

In Dushanbe, each of the four districts issues *stolovaya* coupons worth R.4 to their resident pensioners. With this coupon, pensioners can buy one meal a day in designated canteens. These *stolovayas* are subsidized by the city/district specifically for the elderly.

In the Railroad District of Dushanbe, 26 private businesses, including the railroad station, and Tajiktextilemash (the textile plant) have donated R.150,000 to a special fund at the Social Welfare Department. Regular donors receive a tax credit. From this fund, the district Social Welfare Department assists war veterans and Chernobyl workers. Last year the department spent R.320,000 on the Chernobyl workers alone. They have approximately 100 pensioners who live alone and are surveying apartment building managers to find out about others in the same situation.

Labor unions pay for school lunches and contribute to the welfare of their own pensioners (such as the railroad station, the textile factory, and the airport). Some businesses pay as much as 50 percent of the costs of heating and utilities for their pensioners.

There are approximately 500,000 unemployed workers in the republic, almost one-quarter of the work force. Births have been outpacing new jobs for the last decade. The Ministry of Social Protection provides job-skills development at special colleges and training institutes and is beginning a registry to help the unemployed.

The ministry is having serious budget problems. Even before indexing payments, which was scheduled to take place in April, the ministry is compensating for increased food prices by diverting money away from the housing budget and putting it into social assistance. The ministry receives 37 percent of its income from businesses, of which 84.5 percent goes to pensions and 15.5 percent to the labor unions for sick leave for employees. No money comes

in from the unions. The budget for elderly pensioners is R.3 billion and for invalids R.90 million to R.100 million for the year. Ministry officials expect to have a R.1 billion deficit by the end of the year. German and Australian joint ventures and humanitarian assistance have begun to help the social protection system.

The Railroad District Social Welfare Department, which has a special charity fund supporting a portion of its own programs, already has a R.6 million deficit for the first quarter of 1992 in a budget of R.17 million. In 1991 it had a R.1.5 million deficit for the entire year but was able to obtain additional income from the Soviet government before the dissolution of the USSR. The executive committee of the railroad district did not appear to have a clear idea about how to resolve the budget difficulties. The committee hopes that the new tax of 27 percent on emerging private enterprises will help and that other businesses will increase their donations to assist with the new pensioners. Committee members expressed the belief that "the government won't allow prices to go too high."

Unlike other republics, there did not seem to be much creativity in planning new approaches to social protection in Tajikistan. For example, there have been several new funds created for private donations, but the money is not invested and is not drawing interest.

Observations:

The Social Protection officials recognize the growing problem of caring for pensioners as prices rise and budgets become less certain, but they have few ideas on how to respond. Few people in the government know anything about financial management. Even the basic concept of investing donations to increase the total amount available to pensioners was foreign to these officials. The fact that there is no local bank competition contributes to the sense of the lack of options.

Providing government officials with training and experience in financial management, budgeting, investing, free market economics, etc. could make a significant difference. By introducing ideas such as matching funds for employee investments in retirement accounts, the Tajikistan government could encourage personal saving, lessen its own burden of caring for pensioners, and could instill a sense of personal control over the future in its citizens.

The special *stolovayas* for pensioners were considered poor quality. The *stolovayas*, or even the Red Crescent, could solicit donations of food from farms, state stores, market vendors, and food processing plants in exchange for tax advantages to improve

the quantity, caliber, and selection of the food.

NONGOVERNMENTAL ASSISTANCE

The Red Crescent has 50 nurses who each visit three to four houses providing home care, including washing and shopping. Each of the four rayons and 13 districts also have a local Red Crescent chapter that provides the same services in the rural areas. The Red Crescent helps over 4,000 pensioners.

PUBLIC HEALTH

General:

Poor food supplies for women and children, high incidence of infectious diseases (especially diarrheal diseases due to contaminated drinking water), immunizable diseases issues, and adequate medical care for the rural population are the major public health issues in this republic. Tajikistan, like many of the other republics, faces a shortage of both medicine and medical supplies.

According to the 1989 census, Tajikistan has, compared to the other republics, a low death rate of 1,560.05/100,000 population. In 1991, the infant mortality rate was 40/1,000 births; high compared to developed countries. In addition, the perinatal mortality rate was high at 98/100,000 births.

Surveillance:

The basic foundation for a good surveillance system for infectious diseases already exists in Tajikistan. Data are being collected on a regular and timely basis and are disseminated to those who need to know. Increased incidence of disease is recognized in the office of the chief epidemiologist, and responses to increases in disease incidence are planned thoughtfully, given the severe limitations on money and manpower. However, poor communications and lack of computerized data lessen the effectiveness of the system. In contrast, mortality and chronic disease data are not collected on a timely basis and are not used to develop preventive health care approaches.

In Tajikistan, there are four *oblast*-level administrative areas, plus the city of Dushanbe (which acts much like a city-county health department in the United States). The area of

Dushanbe also controls a grouping of 13 districts separate from the city itself. Reports of infectious diseases are sent to the *oblast*-level Sanitary Epidemiological Station (SES) from hospitals in towns and villages across the country. The *oblast*-level epidemiologists, on a weekly basis, phone in reports on infection incidence to the Republic SES in Dushanbe, where the data are entered by hand onto a form. Epidemics-in-progress or recently recognized increases in disease are phoned in immediately. The Dushanbe *oblast* reports directly to the head of the Sanitary-Epidemiology Control of the Health Ministry (which serves much like a state epidemiologist in the United States). Personnel data on Health Ministry staff are maintained on a computer, but no infectious diseases data are computerized.

Chronic disease morbidity data, as well as hospital data, including numbers of surgeries and outcomes and personnel information on numbers of doctors and nurses, are compiled yearly at the primary care hospitals of the villages. This information is passed to the *oblast*-level Department of Statistics and is then sent to the Bureau of Medical Statistics in Dushanbe. The data are compiled and forwarded to the Republic State Committee of Statistics, then finally on to the Ministry of Health. This systems parallels the one reporting infectious diseases in Tajikistan. These data are compiled once a year, in April, for the previous year. The Republic Bureau of Medical Statistics prepares a report and publishes it in a yearly summary entitled *The Data of the Development of Health Defense in Tajikistan*.

WATER AND SANITATION

The most serious, pressing, and preventable public health problem in this republic is the lack of adequate and pure drinking water in many parts of the country. This contributes in a large part to the high infant-mortality rate and the high incidence of diarrheal disease among children. Diarrheal diseases constitute three of the top five infectious diseases in Tajikistan, and they are especially prevalent in the rural areas of the country, where water and sanitation are poor in quality.

NATIONALITIES AND MIGRATION ISSUES

The Tajiks trace their origins to the Persians who first settled the area in the sixth century B.C. This has set them apart from their neighbors, who are primarily Turkic peoples. Due in part to the confined valleys of the area, the Tajik people have also been more sedentary than their neighbors and are regarded as the most advanced traders and farmers of the region.

The first Tajik state, called Samaninz, was founded in the ninth century and continued about 100 years. It encompassed all of what is now Central Asia and included eastern Turkey and parts of China and Afghanistan. In the 11th century, the nomadic Uzbeks and Kazakhs, descendants of Ghengis Khan, began to push Tajiks into the mountains as the nomads claimed valleys with better range and breeding conditions for their livestock. The area was divided between three territories: Khiva, northern Uzbekistan out to the Aral sea north of Turkmenistan; the Bukhara area; and Kokand, an area in what today is known as the Fergana Valley.

Beginning in the 15th century, the Tajiks came under Uzbek rule, and by the 18th, almost all the territory inhabited by Tajiks was under the khanate of Bukhara. In midcentury, the Afghans invaded the southern part of the territory; the Russians later attacked from the north. By the end of the 19th century, the northern third of the territory was in the hands of the Russians, the middle was still under the Khan of Bukhara, and the southern third had been incorporated into Afghanistan.

Between 1840 and 1895, Russians progressively invaded the area from Kazakhstan and eventually established a governorate. They were helped by Tatars and Bashkiris from Kazan (after their invasion of Siberia), who knew the Tajik language; however the Russians conquered the area, they began promoting Turkish as the lingua franca for the region. Abolishing the three territories, they named the entire region Turkestan and established their leadership in Tashkent. The name Turkestan was chosen to signify that Turkish language and culture would prevail, rather than the Farsi-based (Persian) Tajik.

The area came under Soviet dominion soon after the October Revolution. The Russian Bolsheviks met little resistance. In 1921, the Red Army invaded the Bukhara Khanate and met a fierce fight from the Basmachis. Partly in retaliation, the Bolsheviks gave that part of the Tajik territory to the Uzbek republic. In 1924, the Soviets established the current borders and named the area an autonomous republic. In 1929, the socialist authorities applied to the Supreme Soviet to become a full socialist republic of the USSR.

Soviet Era In-Migrations

In the early 1930s, the Karatagin and Garm mountain people were forced into the Vash River basin to begin cultivating cotton for export to Russia. Wheat and fruit used to be the main crops, but cotton has taken top priority. In the 1940s, industrial plants began to appear, including aluminum, chemicals and textiles. In response to a shortage of skilled labor for the plants, government authorities imported workers, largely from the Russia and the Slavic areas of the Soviet Union.

During World War II, Germans and Baltic nationals were forced into Tajikistan. All of the Baltic nationals returned to their home countries when they became a part of the Soviet Union.

Due to the fighting in Afghanistan, there has been a recent influx of Afghan refugees to Tajikistan, many of whom are the children of the 1,200,000 Tajiks who fled to Afghanistan after the socialist revolution in 1917. Some leaders of the (Afghan) National Liberation Party have sought refuge in Tajikistan as the Russian-backed government in Afghanistan has progressively lost ground. Many of the refugees are small businessmen and traders. The Tajikistan government, however, is limiting the number of refugees, partly because of its own economic fragility, and partly because of its fear of the Afghan's fundamentalism.

Current Demographics:

Of the 5.2 million people in Tajikistan, the majority are Tajik; while 24 percent are Uzbek, 6 percent Russian, and a small percent are Tatars. Some Turkmens also live in the far south. The Tajiks consist of the Lakai, Baralosi (descendants of Tamarlane), Kungret, and Manqra tribes and the Merghabin Primirs and Sirgital (Gamb region) tribes from Kyrgyzstan.

Linguistic and Cultural Ties:

The Tajiks are closely tied through language to Afghanistan and Iran, and through culture to Pakistan, India, and China. There are over 40 million Tajiks in the world, more of whom live in Afghanistan than in Tajikistan. However, the Tajiks have a significantly different approach to religious belief and practice. The Tajiks, who are both Sunni and Shiite muslims, are wary of the Shiite Iranian and Afghan style of religious fundamentalism. They consider themselves Tajiks first, Muslims second.

Emergence of Tajik Nationalism:

In the wake of independence, Tajikistan is experiencing its own ethnic and cultural revival. Tajik has been named the national language, and by 1994 all official business is to be conducted in it. Russian will be accepted as a second language, however.

Many Tajiks are showing a renewed interest in Islam. New mosques are being built and calls to prayer, which were previously banned by the socialist government, can be heard everywhere. This religious revival, which can, in part, be attributed to years of religious repression, nonetheless threatens many of the non-Muslim minorities, who view nationalism and Islam as closely intertwined.

Tajik-Uzbek Rivalries:

In spite of official claims that there is little tension between the Uzbeks and Tajiks, the potential for conflict between these two groups is high. Several people mentioned the fact that Uzbekistan is taking concrete measures to "nationalize" the Tajiks living there, particularly those in Samarkand, where the majority of the population is Tajik. Tajiks claim there are eight million Tajiks in Uzbekistan but say that only one million are officially registered as such by Uzbek authorities. Officials claim that Tajik schools and newspapers in Uzbekistan were shut down as were their newspapers. Tajik radio broadcasts which were formerly transmitted by Uzbek radio stations have been terminated. The number of flights into Bukhara from Tajikistan has also been also reduced (though this may have been due to fuel or other considerations).

The Uzbeks living in Tajikistan, on the other hand, are said to be treated well and given their own cultural opportunities with Uzbek newspapers, radio stations, and schools. The third language in Tajikistan is Uzbek.

Some of the measures taken by Uzbekistan may have to do with the current unemployment rate in Uzbekistan, which is estimated to range from 600,000 to 1.5 million. The Uzbeks may trying to guard the available jobs for Uzbek nationals. Whatever the cause, Tajiks both inside and outside Uzbekistan consider rising Uzbek nationalism a threat, and their concern may boil over into the politics of Tajikistan.

Unification of the Tajik People:

Many Tajik nationalists talk wistfully of unifying the Tajik peoples in the CIS. For now however, the prospect of unification appears to be a distant dream; people at all levels are too preoccupied with the current economic conditions to seriously consider unification. Moreover, Tajikistan is surrounded by countries with sizeable Tajik minorities that do not want Tajik nationalism to spread into their areas. Consequently, Tajikistan must downplay overt chauvinism for the time being.

But there is definite interest. A Tajik poet living in Samarkand named Nemaat writes about the unification of the Tajik people and has been officially banned by Uzbekistan. Though his works have been suppressed, he is a well-known figure in

Tajikistan. It is also worth noting that Tajikistan did not sign the recent agreement between the Central Asian governments agreeing to adhere to the existing borders; instead, the government demanded that Uzbekistan agree to joint administration of Samarkand and Bukhara as a precondition.

Out-Migration:

Many Russians and other European nationalities are leaving Tajikistan as a result of the increased Tajik nationalism and a fear of Muslim fundamentalism.[3] Most Germans have also left. The latest census counted 15,000 Germans remaining, primarily in Dushanbe and in other cities where they work in technical, not agricultural, jobs. The rapid exodus of the last two years has resulted in a minor brain drain, since many of those leaving were technicians and administrators. The industrial sector has been particularly hard hit by the exodus.

Internal Migration:

There does not appear to be any major increase in the movement of people from rural areas and into the cities occurring as a result of independence or other new political or ethnic pressures.

External Influences:

Tajikistan is currently being wooed by Turkey, Iran, Pakistan, China, and to a much lesser extent, Afghanistan. The Turks have not been well received in Tajikistan, presumably because of the age-old fear that they are attempting to spread their influence in language and customs. Iran is well regarded by most Tajiks though they are wary of Iran's strident form of Islam. Television shows are beamed nightly into Tajikistan, extolling the culture of Iran and displaying the country as a model of progress. Pakistan has made a number of diplomatic moves and is offering technical assistance in many areas.

Observations:

A major issue for Tajikistan is the emergence of the Islamic religious base. The fundamentalist minority (backed by Iran and Afghanistan) and the non-fundamentalist majority seem to be subtly jockeying for position, but no one appears to be willing to make a major step. The reemergence of Islam as a political as well as moral force is evident and will probably increase with time, possibly in the form of a strong religious party, strict laws, and

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[3] In a backhanded compliment, some Tajiks claim that Russia is encouraging Russian repatriation because "they are considered less prone to alcoholism as a result of living in a primarily Muslim culture for many years."

a forced return to traditional practices and observances. In the meantime, many non-Muslims fear the rekindling of religious fervor and are leaving.

Uzbek-Tajik tension is another potentially difficult situation. Again, it is not officially acknowledged, but it seems to be an issue beneath the surface. If times get harder for the Tajiks, they may begin to vent their frustrations on the Uzbeks. The large number of Uzbeks in Tajikistan, who don't appear to be returning home, would offer a convenient scapegoat for the Tajiks. The recent history of difficulties with Uzbekistan -- predominantly in the Fergana Valley -- could be an indication of the larger, century-long conflict between Tajiks and other ethnically Turkic groups.

DUSHANBE

Food Type	State Store	Free market
Rice		21-25
Pasta	11.8	
Flour*	1.8	
Bread	1.2/loaf	
Beets		3
Radishes		5
Turnips		3
Onions		3.5
Lentils		10
Carrots		1.8-2.5
Potatoes		8
Slaw	.8	
Eggs	15.4-18.8/10 eggs	19.3/10 eggs
Butter*	84.1	
Keifir	4.2/ltr	
Milk*	1.8-4.38/ltr	
Lamb	30	
Beef	35	
Chicken	38-40	
Sausage		85
Fish (Smoked)	38	
Apples		35
Sugar*	7.7	
Oil (vegetable)*	10	
Tea	72	

* Rationed now

All prices rubles/kilo except where stated

HUMANITARIAN ASSISTANCE REQUIREMENTS: TURKMENISTAN

SUMMARY OF MAIN POINTS

Food Availability

1. Turkmenistan is a poor country which has vast economic potential due to its large reserves of petroleum and natural gas. Agriculture is largely devoted to cotton, but authorities are planning to increase cereal output in 1992. Despite dependence on cotton, the country could be self-sufficient in food. In the future, Turkmenistan will be able to pay for anything it needs from the sale of oil and gas. For the time being, the country does not have a food shortage; most people have access to food from relatives in the countryside or grow vegetables on their own home gardens. There is a year's supply in the country's grain reserves.

2. Technical assistance would be the most appropriate form of aid in the short term. Specific needs are:

- agricultural planning (for the transition period);
- irrigation;
- salt-resistant varieties of grain;
- food storage;
- food processing;
- food pricing.

Next Season

3. The agricultural system is still centrally planned and will continue to be so for the near future.

4. The government has requested 1,000 MT of wheat seeds, 2,000 MT of winter wheat seeds, 10,000 MT of potato seeds, and 1,500 MT of hybrid corn seeds, and 1,000 MT of soybean seeds.

5. Fertilizers and pesticides are not a major problem.

6. The government is planning to increase the grain harvest yet still produce cotton in the same quantities by intensifying cotton production. These plans seem unrealistic.

Entitlement Issues

7. All foods normally consumed are available. Although food prices were lower in Turkmenistan than in other parts of the FSU, the prices are expensive by the usual standards, especially for those on fixed incomes. Most people manage by bartering or getting

food from family members who live in rural areas; Turkmen families are generally large and food sharing is traditional.

8. The Turkmenistan social protection system is the same basic system as in other parts of the FSU. The 1992 budget will have a 4.5 billion ruble deficit but the government will make it up with contributions derived from oil sales.

9. Costs of living are about 25 percent higher than the lowest pension.

10. There are only a few retirement homes and they have no Turkmen residents since Turkmen families take care of their own elderly. The pensioners receiving assistance in the *internats* or *stolovayas* are Russians or other Slavic nationalities.

11. **Technical assistance needs include:**

- management of funds;
- investment strategies for social security funds;
- information on western models of support.

Migration Issues

12. Of all the Central Asian states, Turkmenistan seems to be the one with the fewest ethnic problems. While there are many nationalities present, the two main groups are the Turkmen and the Russians. Other ethnic groups are relatively small.

13. There has been little out-migration except for Germans. Many Russians say they will leave if Islamic fundamentalism takes hold, but the government is trying to encourage them to stay.

14. Though the new constitution sets up a secular state, many Russians and other European nationalities are wary of the direction the country is going. A new language law making Turkmen the official language has given rise to fears among the European population that their place in the nation is threatened. Russians are especially worried about the possible influence of Iranian Islamic fundamentalism.

15. For the moment, Turkmenistan is still in search of a national identity. There are many Turkmen living in adjacent areas of the former Soviet Union (FSU), but the government is not trying to lure them back, nor is it challenging existing borders. For the moment, the country is preoccupied with its economic future.

HUMANITARIAN ASSISTANCE TO TURKMENISTAN: AN ASSESSMENT

INTRODUCTION

Turkmenistan is a small, landlocked country on the southern border of the CIS. It is one of the least developed states of the former Soviet Union.

Geography:

Turkmenistan is mostly arid semi-desert plains. High mountains lie along the southern border cutting it off from Iran and Afghanistan. The run-off from these mountains provides much of the water that is used to irrigate the vast farms that lie along the base of the range. Most of the major towns and settlements lie on the periphery of the country close to the Amu Darya River that forms the border with Uzbekistan, and to other good sources of water.

The mountains in the south have had a significant impact on shaping the history of the area. They isolated the territory from the Farsi-speaking, and largely Shi'ite, Persians. The vast steppes of Turkmenistan were easy to cross and made the region a major route not only for trade but for invasions. The most significant of the conquerors who passed through were the Turkic Khans who left their religion, Sunni Islam, and their language. Today, because of ethnic and linguistic ties, Turkmenistan has strong links with not only the other Turkic speaking states of Kazakhstan and Uzbekistan, but the government also looks to Turkey for a preferred model of economic development.

There are 3.7 million people in Turkmenistan. Vast and sparsely populated, it is the least populous of the Central Asian Republics. Though the land is extremely dry, irrigation has enabled cotton to be produced in its rich soils. Unfortunately, the byproduct of intensive agriculture is a high level of residual mineral deposits, especially salt, which is beginning to threaten further cultivation.

The country is rich in petroleum and natural gas (84 billion cubic meters were exported in 1991), most of which has been untapped. This, in addition to its cotton, makes Turkmenistan a potentially wealthy country able to sustain a healthy economy and eventually, to import most of what it needs.

Population:

The majority of the population (approximately 72 percent) are Turkmen but there are significant numbers of other nationalities including Russians (nine percent), Uzbeks (nine percent), Kyrgyz and Kazakhs. There are also significant numbers of Kurds, Baluchis (from Afghanistan), and Iranians.

Over 50 percent of the population is old, invalid or children, i.e. the "vulnerable" population. Approximately 60 percent lives in rural areas. Like the other Asian republics, Turkmenistan has a very high birth rate, 35 per thousand per year.

The increase in rural-urban migration is contributing to the development of an unemployment problem, unknown until recently. Kindergartens and schools are overcrowded and there is a housing shortage. However, despite the movement away from the rural areas, there is no lack of labor on the farms, presumably because of the high birth rate.

Development Indicators:

The current population growth rate is 2.5 percent per year. The birth rate is one of the highest in the former Soviet Union at 35 births per 1,000 women.

Turkmenistan has one of the highest infant mortality rates in the former Soviet Union, much of it attributable to poor sanitary conditions and the practice of bottle-feeding infants. Turkmens were 10th (of 17 republics) in the number of students in higher educational institutions per thousand population. Turkmenistan's average annual income level is R.1,500 per year, one of the lowest in the former Soviet Union.

FOOD AND AGRICULTURE

About 30 - 35 percent of Turkmenistan is arable land, of which seven to eight percent is under cultivation. Cotton is the number one crop, 90 percent of which is fine fiber. The Russians introduced cotton to the area in the late 1880's, replacing the high quality Turkmen wheat (now found only as a variety of Canadian wheat), and began exporting it to Russia. Today Turkmenistan supplies the entire FSU with fine fiber cotton. The government is discussing reducing the amount of cotton planted and increasing wheat. Turkmenistan's farmers also harvest lucern, a clover used as a feed for cows, and corn for livestock fodder.

All land under cultivation is irrigated. Currently irrigation water is carried by open channels which lose a good deal of water to evaporation. In addition, by the time water reaches the fields,

it has a concentration of salts and other minerals, which it deposits in the soil. The government plans to install subsurface, drip irrigation systems to replace the old channel system, but that will take a number of years. In 1961, an irrigation canal from the Amu Darya River to the Caspian Sea was completed as far as Ashkhabad. The government has recently reopened the project and has extended the channel into the Gazanjik region.

Planting usually begins around the 26th of March and is complete by mid-April. Two corn or one cotton harvest is possible. Sometimes corn is planted in April and harvested in June, then wheat is planted for the second crop. The overall yield in all sectors of agriculture has reportedly been about the same for the last ten years.

Livestock, like elsewhere in Central Asia, lack sufficient fodder. In Turkmenistan feed is 15 - 20 percent grain (mostly corn), and the rest hay, dried wheat grass, and lucern. Roughly 80 percent of the total meat production is beef or lamb. Like livestock producers in other parts of Central Asia, farmers in Turkmenistan raise mixed milk and beef cattle, producing marginal quality/quantity of both, including Shveets, Red and Jerseys. Brucellosis is a recurring problem for cattle and sheep.

Trade:

Turkmenistan exports natural gas, oil, cotton, silk, caracul, and cotton seed oil, and imports wheat, dried milk, meat, butter, pasta, coffee and wool. A total of 1,300,00 tons of raw cotton (40 percent fine fiber), and 400,000 tons of cotton thread were produced last year. Turkmenistan sells cotton to Russia, Italy, France, Finland, Bulgaria, Ukraine, China, and Japan. The country also exports onions, potatoes, tomatoes, radishes, carrots, melons, grapes, and cognac, but these commodities represent a relatively minor component of agricultural exports.

Turkmenistan is a net food importer when it could be a food exporter. As in other former Soviet republics, there are few processing facilities for agricultural products.

This year Turkmenistan will trade directly with other CIS countries without going through Moscow. The CIS recently signed an inter-governmental agreement stating that countries can exchange goods for like value, tax-free. For example, Turkmenistan can export a million rubles worth of cotton to Kazakhstan which then can return a million rubles worth of meat. It is not clear as to which country sets the price. The result would be a clear advantage for those countries exporting finished products over raw materials. Cost of living differences could also favor certain countries such as Turkmenistan, where the cost of living is 1.5 - 2 times less than in many other republics. Even with this

agreement, Turkmenistan will probably have difficulties importing some items that other republics sell for hard currency. The government would like to export more goods for dollars but wants to keep good relations with other countries in the CIS, especially its neighbors.

The Ministry of Trade is setting import priorities for 1992. It expects that it will have to barter for a significant amount of its grain needs, and that Turkmenistan will have a trade deficit in the agricultural sector. Even so, there is no immediate food shortage demanding humanitarian assistance.[4]

Trade relations with Ukraine are somewhat strained at present due to Ashkhabad's desire to raise natural gas prices significantly. When Turkmenistan withheld deliveries, Ukraine retaliated by withholding feed grains and refused to honor contracts to buy Turkmenistan cotton. As a result, many cotton gins have shut down and relations between the two trading partners are strained.

Meat is imported from Kazakhstan for 120 - 190 rubles/kilo and is sold in the state stores for about 30 rubles. Similar subsidies exist for butter, sugar and flour, all of which are rationed (for one month: 1 kilo sugar, 1 kilo meat, 250 grams butter, 3 kilos flour and 1/2 kilo rice.) The Ministry of Finance has a 19 billion ruble budget for food products alone. Cotton seed oil is exported for 68 rubles/liter but sold in the state stores in the republic for 2.60 rubles/liter. A Price Committee sets the prices in the state stores.

According to the Ministry of Trade, there are sufficient grain reserves to meet the needs for all the people in Turkmenistan for one year. Storage facilities in general are not as problematic as they are elsewhere in Central Asia, although on-farm storage could be a problem if grain production increases.

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[4] Turkmenistan has barter agreements with Germany, Afghanistan, Iran and Turkey.

1991 Production:

Approximately 258,000 hectares were planted in grain producing 502,000 tons in 1991. The year also yielded 1,497,000 tons of cotton, 92,000 tons of meat (live weight), 1,093,300 tons of milk, 186 million eggs, 7,500 tons of wool, 671,000 caracul (lamb hide), and 3,600 tons of silk.

Milk production at 2,571 liters/cow/lactation period was extremely low, presumably because of the lack of feed and low levels of chlorophyll in the diet. Hens produced an average of 109 eggs each a year.

1992 Forecast:

The Ministry of Agriculture intends to reduce the number of hectares planted while increasing production by irrigating more land and using a higher yielding wheat seed. The plan is to plant 1,328,000 hectares, 381,000 in grain and 579,000 in cotton, 57,000 vegetables, 307,000 feed grain, and 238,000 lucern. The government also plans to produce 104,500 tons of meat, 210,000 tons of milk, 245 million eggs, 8,000 tons of wool, 470,000 caracul, and 3,600 tons of silk.

The Ministry of Agriculture predicts it will need 5 million tons of grain for animal and human consumption within the republic in 1992. Turkmenistan plans to export 93 percent of its cotton. Cotton sold inside the CIS will be for rubles, the portion going to other countries will be bartered or sold for hard currency. Grain will not be exported.

Agricultural Inputs:

The cotton produced in Turkmenistan is a fine and medium fiber (natural 9871-U and Ashkhabad-25 varieties). There are sufficient supplies of seeds for the 1992 season. The Ministry of Agriculture has 650,000 tons of concentrated livestock feed, which is only 80 percent of the 850,000 ton requirement for the year. Livestock feed is usually imported from Russia and Ukraine. Turkmenistan produces fertilizer and pesticides and is prepared to barter for what it lacks.

Other Problems:

Because of the dry climate in Turkmenistan, all cultivated land must be irrigated. The majority of water is channeled from snow runoff in the mountains (which maintain a snow pack year-round). As it drains off the mountain slopes, it gathers minerals and salt from the exposed rock facings. The salt collects in the irrigation canals and concentrates when water evaporates from the

open troughs. By the time the water reaches its destination, it has a high residual salt content. The result is increasing salinity of the soils. In some areas, agriculture has had to be abandoned and the problem is continuing to increase: barren, snow-white fields can be seen throughout the irrigated areas.

Increasing salinity is a serious long term problem which threatens much of the country's agricultural producing areas. The government understands the potential repercussions if the problem is not corrected (one official said, "salt is our curse"), but so far have not been able to find suitable solutions. As stated earlier, authorities plan to switch to drip irrigation but concede that it will take time and foreign investment. Although the installation of drip irrigation systems can help in the long term, the urgency of the problem requires more immediate action. An irrigation soil scientist should study the problem and advise on appropriate interventions.

At this point, farmers are still planting cotton. This is because 1) it has been mandated by the central authorities in the state system, 2) the farmers are not familiar with other crops, 3) there are insufficient inputs for other crops at the present time, and 4) the farms do not have the equipment they need to grow other crops on a large scale. In addition, they see little incentive to risking an alternative crop under the present circumstances. If they could see an immediate increase in value of their crops, it might directly influence their choice in crop selection.

Processing Facilities:

Like the other new states in the region, Turkmenistan wants to increase the number of food and fibre processing facilities so that the country and get more value out of its basic commodities. Agricultural officials stated a desire to situate flour mills in each of the five oblasts, and to expand cotton ginning throughout the country. While Turkmenistan needs more processing facilities, the government should plan carefully where and what kind of facilities it will build. For example, there are competing agendas when flour milling is considered: increasing employment, decreasing imports, adding value to raw materials, and meeting domestic consumer needs. To earn the maximum foreign exchange, milling should be centralized and highly automated (capital intensive); to meet domestic consumer needs, many small, labor intensive mills should be built. The government should not build any processing facilities until it has completed thorough market analyses are completed and finalized plans for reorienting the agricultural sector.

Food Procurement

Turkmenistan has significant export potential in petroleum and natural gas, in addition to its cotton. Thus, in the future, it will be able to purchase any of the food that it needs. At the moment however, the oil is largely untouched. Although the potential is great, the markets and trade options have yet to be thoroughly explored. Thus, for the near term, the country will still be importing grain and some other food items. In the long-term however, food security should not be a problem.

PRIVATIZATION:

There are 355 collective farms, 130 state farms and 20 "interfarms" which are a combination of the two. There has been no privatization of the farms to date and there is little evidence that it will be forthcoming in the near future. Officials in the Turkmenistan government appear to know very little about privatization. At the moment, Turkmenistan does not have a Privatization Board like that in the other Central Asian states, but a committee has been established to look into the matter. Turkmenistan officials are still operating under the old system and have not yet begun to consider seriously the implications of their new situation, and the need to privatize major sectors of the economy. Several officials stressed that with the oil revenues that they anticipated from sales in the international market, they hoped that many of the programs that they had established under the socialist system could be continued with subsidies from oil and gas sales.

ENTITLEMENT

Cost of Living:

The MSP estimates the monthly cost of food per person has risen from about 300 rubles to 1,000 rubles during the past year, though other observers have put the average cost much higher. Rents are generally lower than in other republics but it is clear that the average cost of living is higher than monthly incomes.

Food Availability:

Cheese was the only item completely unavailable at the time of the assessment. Meat, sugar, rice, butter and flour are currently rationed. In the past 4 or 5 years, the number of people growing

their own vegetables in backyard gardens has reportedly increased.[5] The government also permits families to use unoccupied urban land for gardening; priority is given to pensioners and war veterans.

One *internat* had its own garden and grew enough vegetables for the entire year. There is interest in expanding this approach to other *internats*.

SOCIAL PROTECTION

There are 400,000 pensioners in Turkmenistan. The government has registered 6,000 who live alone. Pensioners receive approximately the same basic stipend as in other countries: a minimum of 350 and a maximum of 1,050 rubles/month. In the Mary oblast, which has 100,000 pensioners, the minimum pension is 420 rubles/month, including a 20 percent compensation for the extremely hot climate of the area. Oblast councils can increase the pensions on a case-by-case basis; in Mary this has been done for 50 individuals.

There are only 6 *internats* (government-sponsored homes) in the country housing 1,600 people. The low number of people in the *internats* is characteristic of the indigenous peoples of the region: families are expected to care for their own. The youngest male child cares for his parents, and if there is no son, the burden is shared by nephews.

The government reports that the cost of supporting a person in an *internat* is 22.50 rubles per person per day (which corresponds to the standard figure throughout the CIS.)[6]

Resources for the Pension Fund come from a levy on all government enterprises, calculated as 37 percent of the wage budget. This is an overhead on the institution and is subtracted before salaries are paid. On farms, only 27 percent is levied. An additional 1 percent is withheld from each employees' salary for the institution's own social welfare fund to pay for sick leave and health benefits and social security.

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[5] After the 1948 earthquake, the city plan was changed to permit construction of single family housing. The structures were sited on what for the USSR were fairly large plots of land. Virtually all the backyard space is used for gardens. Perhaps because of the individual houses, there are few dachas in the country even among the Russian population.

[6] It is unclear whether this is the real cost or simply the amount budgeted. Voluntary contributions of meals, food supplies, and clothing to the internats are increasing in every country.

The Ministry of Social Protection (MSP) needs 9 billion rubles for 1992 at today's cost of operations. They need R.3.1 billion for pensioners alone. Under the current budget, R.5.5 billion will be derived from the income for the Pension Fund. This leaves a R.3.5 billion deficit which will have to be made up by the state. Social Protection officials have been assured that the state will find the money (probably from oil revenues): "It's the state's priority. They have always paid all pensioners and always will," one official said. Nonetheless, one oblast has reported that pension checks have been late on more than one occasion, and there will be a major increase in food costs in April which will necessitate an increase in pension allowances.

There are regular *stolovayas* in all cities in the republic and in Ashkhabad 3 of them serve free meals to the elderly during set hours. One *stolovaya* had a list of 48 pensioners who came daily. This program, which is only 2 - 3 months old, was organized with the help of the Red Crescent, which provides a volunteer to oversee the operation. The meals are paid for by the district. The Mary oblast was also hoping to establish a free-meal *stolovaya* in the city. The majority of people who frequent any *stolovaya* and 100 percent of those partaking in the free meals are Russians and other Europeans. It is considered a dishonor to the family if a Turkmen eats in a *stolovaya*.

Pensioners and invalids can do one-stop shopping in special state stores. These stores have first priority on goods supplied by the Trade Ministry. These are "department" stores containing a variety of items including clothes, household articles and all types of food available through the state system.

Shut-ins across the republic are assisted by state-paid employees who bring their food to them, help with washing and cooking, etc. There are also 120 Red Crescent nurses in the republic (20 in Ashkhabad) who assist shut-ins, including bringing food from the special *stolovayas* to their homes. The polyclinics keep track of who is in need of help and inform the Red Crescent. The city of Mary funds a center employing 55 people who assist shut-ins daily.

Other organizations such as the Charity Fund and the War Veterans Fund help pensioners, although the consistency of their programs are in doubt. One report said the Veterans' Fund delivered milk to shut-ins. The Charity Fund provides clothes, repairs houses, and helps in the *stolovayas*. Unlike other countries in the former USSR, in Turkmenistan labor unions did not provide extra support or assistance to their retirees.

The polyclinics prescribe milk products to mothers with babies less than one year old. This service is paid for by the Ministry of Health and partially organized by the Red Crescent.

Unemployment is high in Ashkhabad, though as in other parts of the CIS, people still receive their salaries even if they are not working. One emerging problem is that young people who are first entering the labor market are having more difficulty finding jobs. Population growth is clearly outpacing new employment opportunities though specific figures were unavailable. (In Turkmenistan, the Ministry of Labor handles unemployment matters.) For working age young people who have not yet found jobs, the social protection net is inadequate. They continue to receive stipends at the student rate which is far less than what pensioners receive (R.220-320 per month).

Technical Assistance:

MSP officials admitted that their lack of understanding of finances contributes to their inability to maintain a reasonable budget. Some of their past expenditures appear to be inappropriate, such as the decision to buy cars for invalids who could not walk. Some officials expressed an interest in expanding their knowledge of financing, and in learning about such topics as creative investing of pension funds. For years they have simply followed "the plan" provided by Moscow. Now they have to plan and run the programs themselves. They have little training in developing realistic budgets, applying cost-benefit analysis, or setting up accounting systems. Technical assistance in budgeting and finance for the staff of the MSP would make a significant difference the country's ability to respond to social welfare needs.

Observations:

In the near future, the dramatic increase in population will have a noticeable effect on the social protection system of Turkmenistan. Unless new job opportunities are created soon, individuals will find it difficult to provide for themselves. The high birth rate, coupled with the migration of people into the cities, contributes to the increasing rate of unemployment annually. Privatization of industry will create more unemployment as inefficient enterprises are streamlined and employees are laid off. As the situation worsens, more family members will be forced to join the job market, especially women, to increase family earnings and meet the higher prices food prices. To reduce the impact of this situation, many new jobs will need to be created in the private sector.

NON-GOVERNMENTAL ASSISTANCE

Role of the Red Crescent:

The Red Crescent is a thriving organization and appears to be providing valuable assistance to the elderly. The RC gets its

funding from a 5 ruble "voluntary" membership fee (they have 1,600,000 members) and from renting out cars that have been loaned to them by the owners for that purpose. In February the International Federation of Red Cross Societies sent some money and the Japanese, American and Turkish Red Crosses have also helped, though the total amount was not substantial. Supporting the Turkmenistan Red Crescent Society's program of assistance to the elderly would be a worthwhile investment. (Indeed, the American Red Cross is about to begin a program in Turkmenistan on a USAID grant.

PUBLIC HEALTH

General:

The Health Ministry of the Republic of Turkmenistan has a 1992 fiscal year budget of 3.2 billion rubles (approximately 5-6 percent of the Republic's budget). The budget for the Sanitary-Epidemiology Division comprised 4 percent of the entire budget of the Ministry of Health. In Turkmenistan, there are five oblast-level administrative areas, plus the city of Ashkhabad (which acts much like a city-county health department in the U.S.).

According to the 1991 census, Turkmenistan has a death rate of 7/1000 population. The average life duration is 65.9 years. In 1991, the infant mortality rate was 46.9/1000 births -- very high compared to developed countries. In addition, the perinatal mortality rate was high at 111.4/100,000 births.

Infectious diseases contribute a significant proportion of morbidity and mortality in Turkmenistan. Diarrheal diseases of mixed etiology: salmonellosis (including *S. typhi*), shigellosis, amebiasis, and a variety of other bacterial, parasitic, and viral agents -- the distribution and extent of which are not well characterized because of the lack of technical laboratory support in the Republic -- compose the top infectious disease problem. This is particularly apparent in the summer.

Hepatitis A is the biggest single infectious disease problem in Turkmenistan. Upper respiratory infections are more serious in the winter and replace diarrheal disease as the number one problem during this period of time. Zoonotic diseases, including brucellosis, anthrax, and rabies, represent the second leading infectious disease problem. Nosocomial infections rank third, followed by immunizable diseases issues, including lack of adequate supplies. These problems are especially acute in the rural areas of Turkmenistan, and are less common in the cities.
The rural areas are also potentially at highest risk for food shortages. However, many people in the rural areas supplement their food supplies with private gardens.

Surveillance:

Reports of infectious diseases are sent to the oblast-level SES from town and village hospitals. Oblast-level epidemiologists, on a monthly basis, mail-in reports on infection incidence to the Republic SES in Ashkhabad, where the data are entered by hand onto a form. Epidemics-in-progress or recently recognized increases in disease are phoned-in immediately to the chief epidemiologist. The Ashkhabad oblast reports directly to the chief epidemiologist of the Health Ministry (he serves much like a State Epidemiologist in the U.S.), who reviews the monthly data.

Chronic disease morbidity data and hospital data, including numbers of surgeries and outcomes and personnel information, are compiled yearly at the primary care hospitals of the villages. This information is then passed to the oblast-level Department of Statistics. The information is then sent to the Bureau of Medical Statistics in Ashkhabad. The data is compiled and forwarded to the Republic State Committee of Statistics, then finally on to the Ministry of Health. This is a parallel system to the reporting of infectious diseases in Turkmenistan. These data are compiled once-a-year, in April, for the previous year's information. A report is prepared at the level of the Republic Bureau of Medical Statistics and published in a yearly summary entitled *The Data of the Development of Health Defense in Turkmenistan*.

The basic foundation for a good surveillance system for infectious diseases already exists in Turkmenistan. Surveillance of infectious diseases is ongoing; however, the effectiveness of the system is lessened by poor communications and lack of computerized data. In contrast, the government does not collect mortality and chronic disease data on a timely basis, and the information is not used to develop preventive health care approaches.

WATER AND SANITATION

The most serious, pressing, and preventable public health problem in this republic is the lack of adequate and pure drinking water in many parts of the country, especially in rural areas. This contributes in a large part to the increased infant mortality rate and the high incidence of diarrheal disease among children. Efforts are under way to develop the water systems which will prevent the spread of these diseases.

NATIONALITIES AND MIGRATION ISSUES

As compared with other areas of the CIS, there appears to be little tension between populations in Turkmenistan.

One half of all Turkmens live in Turkmenistan; a large majority of the other half live in Uzbekistan, primarily near Samarkand, as well as in Afghanistan, Syria, Iraq, Iran, Turkey, China (72,000), Tajikistan, Karakalpakistan, the Stavropol region of Russia, Astrakhan and the Caucasus.

The current ethnic makeup of Turkmenistan is as follows:[7] Turkmen (approximately 72 percent, which is growing); Russians(10 percent); Uzbeks (5-6 percent); Tajiks (½ percent); Persians (½ percent); Azerbaijanis (1½-2 percent); Armenians (1-2 percent); Kurds (½ percent); Beluchis (40,000-50,000); Germans (several thousand); Uighurs (several thousand); Koreans (several thousand); others. Altogether there are more than 100 nationalities in Turkmenistan.

Formation of a National Identity:

Because there was never a true Turkmen nation, a national identity is only now beginning to form. Turkmen nationalism is gradually growing, though it appears to be much subtler and less chauvinistic than nationalism in the other Central Asian republics. A law has been passed making Turkmen the official language, but 1996 is the first year all official documents must be in Turkmen, markedly later than in other republics. This is partly because significant numbers of Turkmen do not speak their own language.

In the wake of *perestroika*, new opportunities in business and industry for Turkmen people opened up. In a few years, Turkmens rose to all levels of society, reaching positions of authority that were previously unattainable by non-Slavic citizens. By the time independence came in 1991, most key jobs in government were in the hands of the local people and the process is continuing today. In the 1950s, nearly all academics in higher education were Russian or Armenian. Several years ago, most government officials and leaders in industry were European Soviets. Schools have been divided into three types: Russian-speaking, Turkmen-speaking and a combination of the two. Many Turkmens studied only in Russian speaking schools.

As the Turkmen establish their new identity, there are some who want to reunite all the Turkmen people in one country. Recently, a Turkmen nationalist group was established, "The International Humanitarian Association of Turkmen", which is headed

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[7] These are approximate numbers.

by the President of Turkmenistan. However, most Turkmen feel that the present borders are adequate and there is no overt movement to change the territorial boundaries. Rather, most Turkmen say that they would simply like to see all the Turkmen have an opportunity to return to the country and that they would like to have closer links to the Turkmen living outside their borders.

Islam and Fundamentalism

Turkmen are Moslem and Moslem traditions are part of the dominant culture in Turkmenistan. Officially however, the country is a secular state and all religions may be practiced. It is difficult to predict whether fundamentalism will take hold. The Turkmen are Sunnis and disdain the radical fundamentalism of Iran. Most observers in Turkmenistan do not think that rise of fundamentalism is an immediate concern; they argue that Russian fears are disproportionate.

Recent Emigration of Turkmen:

In the 1980s, the Soviet government encouraged Turkmen to move to the Far East. They were lured with promises of houses and high paying jobs. Many found poor working conditions, a lack of housing, reduced rations and conflicts with local authorities over issues such as circumcision and burial rights. A substantial number of them have returned home and more are expected.

Internal Migration:

Today, an increasing number of rural Turkmens are moving to the capital, and many are moving into the gas and oil field towns looking for work there. Approximately 60 percent of all Turkmen now live in urban areas, as opposed to 3 percent two generations ago. They comprise 60 percent of the population in Ashkhabad.

In-migration:

At the moment there are not significant movements of people into the republic. Some refugees came in the wake of the Iranian Revolution but the numbers were small. In recent years an unknown number of Afghan refugees crossed the border (their presence was officially denied for years and they were listed as "students"). More refugees could come if the Najibullah regime in Afghanistan falls, but the government clearly hopes that most will go to other countries.

Recent Out-migration:

Some Russians have left, but the overall numbers are small. Many Russians and people of European origin feel threatened by the

language laws, the re-emergence of Islam, and the trend toward filling more jobs with native peoples.

Many families of German origin say they are planning to leave and some have already done so. But the government is working hard to persuade the Russians and other nationalities to stay in Turkmenistan, and overall the situation is more stable than any other area.

Observations:

The present leadership of Turkmenistan has established a secular state and is firmly committed to following the Turkish model of development. Even though it appears that the route is clearly mapped out, the proximity of Iran is having an effect. Iran has a strong interest in Turkmenistan and is sending money and technical assistance and helping to finance a number of joint ventures with Turkmen businessmen. While the strident fundamentalism of Iran is adamantly dismissed, over time Iran's influence could become more visible, particularly with the inevitable clash of secular and religious ideas.

Europeans are not the only ones who fear an Islamic revival: in Ashkhabad, there are many Turkmen women who are openly voicing their concerns about fundamentalism. They fear losing the many gains that women have made under the socialist system and have no intention of "disappearing under a chador."[8]

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[8] Chador = Traditional women's robe worn in Iran.

FOOD PRICES (MARCH 1992)
ASHKHABAD

	Market State Store
Brown bread	
White bread	2.1/loaf
Potato flour	
Wheat flour (coupon)	
Rice (coupon)	6
Potatoes	8 8
Onions	109-10
Carrots	4-62
Turnips	6 .7
Beets	82
Cucumbers	3521
Cabbage	15
Cabbage, slaw	10
Radishes	6
Milk	1.6/ltr
Butter (coupon)	45
Cheese (not available)	
Keifer (with 2 ruble bottle)	1/ltr
Eggs	16-19/10 eggs
Sausage	38-90
Lamb	30
Pork	
Beef (coupon)	30
Chicken	42
Duck/goose	15
Salmon	
Common river fish	20
Tinned fish	7
Oil, vegetable	11.2/liter
Sugar (coupon)	8.8
Tea (black)	38
Tea (green)	35

All prices rubles per kilo except where stated.

HUMANITARIAN ASSISTANCE REQUIREMENTS: UZBEKISTAN

SUMMARY OF MAIN POINTS

Current Food Situation:

1. Food supplies in Uzbekistan markets are plentiful, and no food assistance should be programmed for the republic at this time.

2. Prices for basic commodities, although relatively high, have remained stable following the further price liberalization of April 1st.

3. Because Uzbekistan is a major importer of grain, and supplies through the next harvest are not known, the need for grain in late summer should be further investigated and monitored on a continuing basis.

Next Season's Forecast:

4. Good rains to date, combined with readily available seeds and fertilizer inputs, provide cause for optimism regarding the fall 1992 harvest. Much will depend on continued good rains through May, however, and this situation should continue to be monitored.

5. With the exception of the poultry industry, there are no indicators of stress in the agricultural sector.

6. The limited privatization that has occurred in Uzbekistan will have no appreciable effect on 1992 production.

Entitlement Issues:

7. The extended family is the major coping mechanism for most of the population in Uzbekistan.

8. At-risk populations in Uzbekistan are primarily elderly (Russian) people living alone and children in large, impoverished families; both groups are served principally by non-governmental organizations.

9. The Red Crescent, the Fund of Mercy, and the Children's Fund, which focus on providing assistance to at-risk populations, are facing serious funding constraints and require external financing if severe suffering is to be avoided.

10. The USG, through the American Red Cross, should provide financial assistance to the Uzbekistan Red Crescent, the Fund of Mercy, and the Children's Fund.

Health:

11. Prevalence of infectious disease is high, particularly among children, and is the leading cause of death. Diarrheal diseases are common and can be attributed to the poor quality of water and sanitation. Oral Rehydration Salts (ORS) are in short supply.

12. Doctors and health officials identified a shortage of basic drugs and medical supplies.

13. Women do not receive adequate care during pregnancy and childbirth.

14. The proposed health information system should be established as soon as possible to enable the Ministry of Health (MOH) to monitor the impact of current economic problems on the health of the population.

Nutrition:

15. No nutritional emergency exists at this time. Groups who may be at risk in the near future include children, women, and the elderly living alone. The nutritional situation needs to be carefully monitored.

16. Specific nutritional deficiencies in women and children include iron- and folate-deficiency anaemia and vitamin D/calcium deficiency. It is recommended that iron and folate tablets be made available as soon as possible.

17. A shortfall in the supply of milk is putting feeding programs for children at risk. It is recommended that carefully targeted supplies of dried full-cream milk be provided for use.

Migration:

18. Anti-Russian sentiment in Uzbekistan could erupt, resulting in a rapid and massive out-migration of the Russian population. The possibility of other ethnic disputes appears to be minimal.

19. Fundamentalist Islam has made little headway in Uzbekistan to date. However there are serious social and economic issues in Uzbekistan that are ripe for exploitation by any radical group.

20. The most serious problems facing Uzbekistan are its high rate of population growth, the consequent pressure on land and high unemployment. The latter has particular potential for contributing to ethnic and political turmoil.

FOOD AND AGRICULTURE

As in other Central Asian republics, food production in Uzbekistan has been subordinated to the cultivation of cotton. As a result, the republic imports about seventy-five percent of its grain needs. The republic produces 1.5 million tons of cotton fiber and substantial amounts of fruits and vegetables, some for export. Uzbekistan also produces approximately 1.5 million MT of wheat, 560,000 MT of rice and 450,000 MT of maize, primarily for feed gain. Officials indicated that one-sixth of the cotton fiber produced last year was required for importation of basic food stuffs.

Despite the heavy reliance on grain imports and present low cotton-to-grain price ratios, food availability in Uzbekistan does not appear to be a problem. Agriculture officials could not precisely define total grain requirements or the sources for grain imports. By extrapolation, however, it is estimated that total grain production in Uzbekistan in 1991 was approximately 2.5 million MT and that approximately 7.5 million MT is required before the September 1992 harvest. Half of grain imports are required for human consumption and half for animal feed.

Markets are full of produce of all kinds, although sugar and butter supplies are sporadic. There is also no indication of agricultural stress except for poultry production, which has been reduced by half. Fodder prices are relatively high, but there is no indication of livestock slaughter due to lack of feed. In addition to the 660,000 MT of meat produced locally, officials estimate a 1992 import requirement of 230,000 MT, but meat continues to be available in the market in adequate quantities. Similarly, although the republic must import some 17,000 MT of dried milk in addition to locally produced milk, milk is available at state stores in unlimited quantities. The staple food, bread, is also available in unlimited quantities.

Current food prices are relatively high, but contrary to expectations, they have not increased following the price liberalization of April 1. In fact, the prices of some commodities, notably fruit and vegetables, have decreased in recent days due to seasonal availability. Rationed items include sugar, oil, macaroni, rice, flour, butter, and vodka. (See appendix for quantities and prices.)

Recommendation:

In light of current food availability, no humanitarian food aid should be programmed for distribution in Uzbekistan at this time. However, the grain-import situation should be monitored carefully and appropriate action taken as required. (Should a grain shortage occur, it will most likely begin in late July or August.)

Next Season's Forecast:

Uzbekistan has one of only six fertilizer plants in the FSU. It produces sufficient quantities for its domestic needs and exports some to other republics (at 30 to 40 times the 1991 prices). Agriculture officials noted that hybrid wheat seeds, which the republic previously acquired from Ukraine, are now a problem, but they did not elaborate on this point. (Officials in Kyrgyzstan expressed similar concerns, noting that hybrid wheat seeds now cost R.5 to R.6 a kilo.) Uzbekistan is attempting to decrease its use of pesticides in favor of biological pest controls. Four-fifths of Uzbekistan's irrigation water, the most critical agricultural input, comes from Kyrgyzstan and Tajikistan, but officials anticipate no difficulty in this regard in the immediate future. Officials indicated some 4 million hectares are irrigated, including 150,000 hectares under rice. Approximately 100,000 hectares are sown with maize and about 600,000 hectares are planted with wheat.

If current plans for 1992 materialize, Uzbekistan will grow approximately 5 million MT of grain, or about half its total grain requirements. If it succeeds, Uzbekistan will have taken a big step away from its monoculture agriculture. Rains to date have been exceptionally good, but much will depend upon continued good rains through May, particularly in respect to wheat, which is entirely rain fed.

In some areas of Uzbekistan, dairy farmers use chlorophyll-rich lucerne in cattle feed to good advantage. A private farmer in Andijan, for example, stated his milk production was 10 to 15 liters per cow using this fodder; this compares with another private farmer in Fergana who was getting only six liters per cow using commercial feed. Agriculture officials reported that Uzbekistan is receiving some assistance in improving its production from Turkey, Saudi Arabia, China, and Israel. The officials said the republic needed additional technical assistance and appealed to the United States to make connections.

In trying to increase agricultural productivity, the government will have to face the fact that 700,000 hectares have been damaged due to salt contamination. Land is also being lost in significant amounts to accommodate increases in population. In addition, agriculture officials noted that imports moving through other Central Asian republics that surround Uzbekistan may be subject to fees. Thievery of imported cargoes during transit is also a problem.

Recommendation:

In light of generally low milk yields throughout Uzbekistan and farmers' reliance on commercial fodder, the USG should provide

chlorophyll pellets in sufficient quantities to enrich dairy cow feed. This could rapidly increase milk availability and decrease the amount of milk Uzbekistan must import.

PRIVATIZATION

Privatization in Uzbekistan has occurred on a small scale and is not expected to have any appreciable affect on 1992 agricultural production. However, oblasts are permitted to sell or barter that portion of their production that is not required by the national government, and this could increase production significantly over time. The amount each oblast can trade varies according to the crop. In Fergana, for example, the oblast must sell a minimum of 120,000 MT of both cotton and silk to the republic government; all production over this amount can be directly traded or bartered freely with other countries. Fifty percent of fruit and vegetable production is also available for direct trade. At a lower level, the limited number of private farmers are bound by similar requirements. For example, a private farm in Andijan Oblast must sell 80 percent of its milk this year to the state and can trade the remaining 20 percent. In 1993, the state will only take 50 percent.

ENTITLEMENT ISSUES

As in other Central Asian republics, the primary coping mechanism in Uzbekistan is the extended family system, which provides support to the elderly, youths, and large nuclear families as the need arises. In addition, the government has embarked on a program to distribute from 0.2 to 0.25 hectares per family to all citizens, to permit the cultivation of produce in kitchen gardens for domestic consumption and for sale (and also to provide impetus to the construction industry by encouraging the construction of dachas for urban residents). To date, the government has distributed approximately 300,000 hectares for this purpose.

About one million pensioners (43 percent) receive the minimum pension. Those considered to be in particular need may also receive supplementary payments from their former place of employment or from in-kind distributions financed by the oblast in which the individual is resident. In-kind distributions generally include meat rice, flour and butter, and are valued at R.54 per month. Non-retired persons in need, such as the physically handicapped, receive from R.80 to R.110 per month and a quarterly payment for clothing of R.90 per child, again paid out of the respective oblast budget.

NUTRITION ISSUES

Uzbekistan imports three-fourths of its national grain requirements, and it is possible that shortages of grain may occur in the next 3-4 months. This could have repercussions on the nutritional status of the population. Although other starchy staples (i.e., rice and potatoes) are available, the Uzbeks are heavily dependent on bread in their diet. Shortages of wheat may cause nutritional deficiencies, and because of the importance of bread are likely to lead to riots. For these reasons, the situation needs to be carefully monitored.

As in the other Central Asian republics, those at greatest nutritional risk both at the present time and in the near future are children, women and elderly living alone.

Children:

There is no evidence of acute PEM at this time. Given that most children in rural areas suffer an array of infectious diseases, it is likely that prevalence of chronic malnutrition is quite high. No data is available to substantiate this, although anecdotal evidence suggests that at least 50 percent of children, particularly in rural areas, are probably malnourished to some degree. As in other areas the nutritional status of children, especially those under age five, may be severely affected by an epidemic of vaccine preventable diseases. The shortage of measles vaccine is a cause for concern.

In terms of a specific nutritional deficiencies, iron and folate deficiency anaemia is common among children. Vitamin D/calcium deficiency is also widespread and is associated with poor maternal nutrition and the tradition of keeping children well covered until at least two years of age, thereby preventing exposure to the sun and natural production of vitamin D. Children who have vitamin D deficiency are given oil droplets. Supplies are inadequate to initiate a preventive approach to the problem, and nutrition education provided to mothers is very limited.

Throughout Central Asia breast-feeding is inadequately promoted and Uzbekistan is no exception. The average duration of breast-feeding is reported to be one year, although health officials acknowledge that this is often not the case and breast-feeding may last only several months. In many areas the quality of breast-milk has been affected by pesticides. In Karakalpak mothers have been advised against breast-feeding for this reason. Although the link between the environment and health has not been clearly established, and reports should be viewed with caution, it is evident a problem does exist. Other reasons for shortened period of breast-feeding include frequent infections, anaemia, a poor quality diet and a heavy workload.

A network of 127 milk kitchens operate throughout the republic. However, these kitchens currently serve only 24 percent of the children under 2 years of age. Milk, juices and curds are distributed via the polyclinics. Mothers with a doctor's prescription are eligible for these products. There is indication that there will be cuts in the service in the near future. Officials noted the low participation in the service and attributed this to a shortfall in milk supplies.

The supply of cows' milk is insufficient in Uzbekistan, and in the past the republic has imported dried milk (87 percent from Russia and 13 percent from Yugoslavia and Germany). In 1992, there is no agreement for importing and the republic has insufficient hard currency to purchase milk from abroad. Health officials have stated that they need 17,000 MT of dried milk to produce infant formula, and to supplement the diets of infants, preschool children and pregnant women. The Japanese have donated 3 MT and the Turks 17 MT of dried skim milk to the Red Crescent, a small portion of total need.

The government has entered into two contracts (worth $16 million) with Italian firms to provide the technology to make infant formula, canned fruit and vegetables for children. The MOH sees this as a necessary step in providing cheap food for children, but hopes to move towards increasing milk yields, food processing, and promotion of breast-feeding.

Women:

Prevalence of iron- and folate-deficiency anemia among women is widespread. Nationally, 70 percent of women are reported to be anemic with at least half of these severely so. As in other areas, anemia is caused by a combination of frequent deliveries with short intervals between births, poor diet, infectious diseases and heavy workloads. Many women in rural areas work in the fields until they are ready to deliver and return to work shortly after the birth. Health officials report that the diet of pregnant women is not only inadequate in quantity, but also in quality. They also noted that "nitrates" in food products destroy the vitamin content of the food, rendering it useless. Treatment for anemia focuses on cures rather than prevention. In the past, health officials have considered preventive programs unnecessary, and supplies of iron preparations have been inadequate for years.

In an attempt to improve the diet of pregnant women, the Ministry of Health now gives those on low incomes R.5.70 worth of food products per day for 20 weeks of their pregnancy. There are currently plans to increase this to R.350 per month.

The Elderly:

The elderly living alone are most likely to demonstrate nutritional deficiencies. The majority of this group are Russians, but in the cities, especially Tashkent, there are an increasing number of Uzbeks. The minimum pension is insufficient to cover the costs of an adequate diet. Given the decreases in the services provided by the Red Crescent and the Fund of Mercy, it is essential that this group be closely monitored.

Recommendations:

1. Surveillance systems on economic and food vulnerability should be put into operation as soon as possible. In Uzbekistan, this kind of monitoring would not require the establishment of new information systems, as the collection of this kind of data is well established. The government does a regular monthly compilation of data on prices and household consumption patterns in Uzbekistan, but does not have system to interpret, analyze and disseminate information.

2. Dried milk, preferably full-cream milk, should be provided. This should used to make infant feeds and should only be distributed through hospitals, polyclirics and preschool programs. Current efforts to increase the duration of breast-feeding should not be undermined by the distribution of dried milk. UNICEF has also suggested the need for dried milk and the USG should coordinate with UNICEF in this regard.

3. It is recommended that iron/folic acid tablets be provided for all pregnant women. UNICEF intends to supply a small quantity of tablets, but it is estimated that at least 500,000 tablets are needed immediately. The USG should supply these through the American Red Cross, which should be responsible for overseeing their use.

SOCIAL PROTECTION

A number of governmental and non-governmental agencies provide direct assistance to at-risk populations. The most important of these are the Ministry of Social Protection, the Red Crescent, the Fund of Mercy, and the Children's Fund. The Ministry of Labor is also increasingly involved providing social services.

As in other republics, the Ministry of Social Protection administers the republic's workers' pension program and operates institutions for orphans, elderly and handicapped. Only about 10,000 persons live in the republic's 32 residential institutions. There are 2.3 million elderly (11.5 percent of the total population) who receive workers' pensions from the state. In accordance with a presidential decree, workers' pensions are

indexed to consumer prices and, until March 16, the minimum pension was set at R.350 per month. Effective that date, the minimum pension was raised to R.550 per month, but pensioners will not receive this payment until April.

Unemployed persons have been recognized by the Uzbekistan Government as another, rapidly increasing, at-risk group. Following the ethnic disputes in the Fergana Valley in May, 1989, which officials recognize as having been caused in great part by unemployed youth, a (Moscow) inter-ministerial task force agreed to the establishment of up to 40 factories in Uzbekistan to absorb excess labor. With the dissolution of the Soviet Union, however, these plans did not materialize. In 1991, the Uzbekistan government began to register the unemployed and to establish branches of the Ministry of Industry in each oblast to encourage the creation of cottage industries and handicraft enterprises. Some 240,000 people received unemployment benefits totalling R.36 million in 1991.

Starting July 1, 1992, the Ministry of Labor will pay unemployment benefits from the Employment Fund, established with compulsory contributions from private enterprises in the republic. By law, each private enterprise must contribute 3 percent of its total payroll to the Employment Fund each month, which should yield approximately R.1.5 billion for the year. The Employment Fund may also receive voluntary contributions and penalties assessed by the state for labor law violations. In addition, the Fund will engage in commercial activity/investments, and may draw upon the state budget as required. Labor officials expect total Fund resources to approximate R.2.- R.2.5 billion in 1992.

Against these resources, the Ministry of Labor expects job seekers in 1992 to total 1.2 million, of whom 230,000 will be persons who have lost their jobs due to economic decline, and 330,000 will be new labor force entrants: 293,000 youths and 37,000 housewives forced to enter the labor market due to economic difficulties. The balance are persons seeking to change jobs or who have lost their present jobs for cause. Labor officials estimate that half of all job seekers will fail to find productive employment. To deal with these persons the Ministry of Labor intends to use the Employment Fund to provide training and to finance public works projects in Uzbekistan that together will absorb about 360,000 workers (60 percent of the total unemployed). Officials acknowledge that 240,000 people will remain idle. Unemployment benefits will be paid to all trainees, public projects laborers, and idle workers at the rate of R.350 per month, a total expenditure of 2.52 billion for the 12-month period, not including training costs and costs of material for public works projects. It appears very likely that the Employment Fund will be forced to draw upon the state budget for additional financing.

In the face of rapid population growth and economic contraction at least in the short term, Uzbekistan's unemployment situation will undoubtedly worsen during the next year or two, increasing political and ethnic tension in the republic (also see Migration Issues, below). In addition to instituting programs financed by the Employment Fund, the government is trying to alleviate unemployment by exporting labor, and has contacted the Persian Gulf states and Malaysia on this issue.

Recommendations:

1. In order to assist the immediately at-risk populations in Uzbekistan, the USG support, through the American Red Cross, the Uzbekistan Red Crescent, the Fund of Mercy and the Children's Fund. Monetization of USG supplies should be considered as a source of funding for this.

2. DOD food donations which cannot be halted should be consigned to the Uzbekistan Red Crescent to be stockpiled against the need for a rapid response by that organization to either natural disasters or ethnic conflict.

NON-GOVERNMENTAL ASSISTANCE

The Uzbekistan Red Crescent, the Fund of Mercy and the Children's Fund also provide significant, possibly critical, assistance to the elderly, the handicapped, children in impoverished families, and others in need. In addition, the Red Crescent maintains its more traditional areas of focus, blood donations and disaster preparedness, and is also attentive to ecological problems (see section on water, health and sanitation).

The budgets of all three organizations are entirely dependent on donations and fund-raising activities. All three organizations are facing a financial crisis as donations have fallen sharply because of present economic difficulties while needs have increased for the same reason. None of the three agencies has been able to keep pace with rising costs of goods and labor and, as a result, services and staff have been drastically reduced.

Until December 1991, for example, the Red Crescent provided a Meals on Wheels service to needy elderly living alone in Tashkent, but the RC has stopped this program due to financial reasons. In addition, the number of Nurses of Mercy, who visit elderly people at home, is declining; first, because the Red Crescent has insufficient funds to pay the nurses, and secondly, because some nurses can no longer afford to work for the R.250/month salary that the Red Crescent provides. Red Crescent officials are extremely concerned about the impact of restrictions in their services to the elderly, and believe that some individuals may die as a result of lack of care.

In 1991, The Fund of Mercy operated three canteens in Bukhara that provided one daily meal to 300 needy elderly; two of these canteens are now closed due to the rise in food prices, and some 200 elderly persons in Bukhara have been dropped from the Fund's beneficiary list. The Children's Fund, which concentrates on assisting orphans and children in impoverished families, has had to undertake similar reductions in staff and services.

Each of the three main non-governmental social welfare agencies has taken important steps to improve its financial position. Membership fees for the Red Crescent have been increased, radio marathons and other fund-raising activities have been planned, initiatives have been taken to inherit the homes of deceased elderly benefactors and small-scale tax-free enterprises are being established by each organization. Some of these initiatives will not have much impact for a year or more; however, each organization is concerned that needs be met in the interim and has appealed for cash assistance.

PUBLIC HEALTH

In terms of disease patterns and the quality of medical assistance, Uzbekistan is indistinguishable from many third world countries. The majority of child deaths are due to infectious diseases, which for the most part are related to poor water supplies and inadequate sanitation. The major cause of infant death is respiratory infection (including pneumonia), followed by diarrheal diseases and prenatal conditions. The infant mortality rate (IMR) for Uzbekistan as a whole is 38/1000 live births. However, the IMR is much higher in rural areas and thus much higher among Uzbeks than Russians and Tajiks, for example, who for the most part live in the cities.

Women's Health and Family Planning:

The population growth rate is 3.7 percent and the total fertility rate stands at 4.8 per woman. Maternal mortality rate is 67/100,000 but much higher in the western regions, particularly in the autonomous Karakalpak region. The high infant and maternal mortality rates in this region are attributed to poor economic planning in the region, a very high prevalence of sexually transmitted diseases and anemia among women, and complications during delivery.

Family planning services and antenatal care are wholly inadequate. The so-called "women's consultation" services are very poorly equipped and contraceptives are in short supply. The MOH has a program of family planning which does not actively promote contraception, but encourages birth spacing, and prolonged breast feeding and, in some cases, recommends the IUD for women who have been advised against pregnancy for health reasons. Prevalence of contraceptive use is less than 12 percent.

Health officials noted that the mosques were beginning to play a larger role in promoting the health of women and in some cases are planning to open diagnostic centers and gynecology services for women, relying solely on female doctors for examinations and treatment. The Chief Imam (Muslim official) in Samarkand noted that his health service is trying to encourage mothers to breast-feed for two years, in accordance with the dictates of Islam, and he appealed for assistance with supplies and equipment for his clinic. It was also noted that in general Islamic leaders do not hamper the work of the MOH in respect to its family planning program.

Surveillance System:

The health information system (HIS) in Uzbekistan is centralized under the control of the MOH. This is in contrast to the system in Russia where the functions of surveillance and control of communicable diseases have been assigned to a separate

committee for epidemiology. The structure in Uzbekistan allows for more centralized control of data.

The team found that, although appropriate information was collected, it was not analyzed and used effectively. It is clear that the national HIS needs to be adapted in order to monitor the impact of current economic problems on the health of the population. Such indicators might include the following: measles and pertussis incidence rates, incidence of anemia in pregnant women, age specific death rates for persons over age 65, and operative mortality rate for selected surgical conditions.

Immunization Requirements:

A detailed report on the immunization requirements for Uzbekistan is also contained toward the end of this report.

Recommendations:

1. Basic drugs and supplies, including large quantities of ORS, antibiotics, and basic supplies and equipment for antenatal care and delivery, should be provided through the American Red Cross.

2. Health monitoring and surveillance should be undertaken in accordance with the proposed HIS system.

3. Vaccines should be provided by OFDA to the Tashkent area in accordance with the immunization team's proposal.

WATER AND SANITATION

The pursuit of cotton monoculture in Uzbekistan has not only destroyed the natural water cycle, but has also had an adverse effect on the normal cycle of human life.

Pollution of the Aral Sea has rendered the waters in the lower regions of the Syrdar'ia and Amu Darya Rivers unsuitable for consumption. Salinization of the region has become so extensive that one report suggests that some 20,000 people a year are fleeing the area. Since 1960, the salinity of the sea has increased from approximately 10 percent to 23 percent. Health officials link a barrage of diseases, including cancer, kidney and liver disease, and intestinal problems, to the ecological problems.

The Red Crescent is acutely aware of the ecological problems in Uzbekistan, particularly in the Aral sea region, and has focused much of its assistance, both in terms of personnel and funding, on this region. A DM3.5 million contract has recently been signed with the German Red Cross to provide water filtering equipment to provide clean water to 15,000 individuals.

Food products are said to be contaminated with "nitrates," a term which has come to mean pesticides and chemical fertilizer residues. The relentless use of pesticides and defoliants also affects those working in the cotton fields, particularly women and children, who perform the bulk of the work.

Not only is drinking water contaminated in many areas, but also supply of water is inadequate and sewage facilities are very poor quality. In 1991, it was reported that 65 percent of all rural hospitals in Uzbekistan did not have hot water, 27 percent had inadequate sewage facilities, and 17 percent had no water at all. It is therefore no surprise that the incidence of diarrheal diseases is high. In Fergana, health and sanitation officials commented on the large number of people who take their drinking water directly from the canal.

Pollution from chemical plants is also a problem. The emissions from an aluminum plant in Tajikistan, which borders Sakhandaria oblast in Uzbekistan, are reported to affect the normal development of the fetus.

In the past there has been a tendency to ignore ecological problems. However, since 1988, environmental problems have become a topic of public discussion. Birlik, a political opposition group, has been particularly active in this regard. There is now an effort to find solutions to these problems, and several oblasts have already set up ecological committees.

NATIONALITIES AND MIGRATION

Uzbekistan is a large country containing densely populated rural areas; Uzbeks, however, tend to be in the minority in several of the republic's urban centers. The number of non-Central Asians living in the republic has significantly decreased in the last five years, decreasing the potential for conflict among different nationalities. However, specific issues such as language, water rights, privatization, unemployment, Islamic fundamentalism, and border disputes could exacerbate existing ethnic tension.

Uzbeks are among the least urbanized people in the former Soviet Union. Beginning in the 1960s, the Soviet government pursued large-scale incentive programs to move Russian workers into the relatively underdeveloped Central Asian republics. As late as 1979, only about 25 percent of all Uzbeks lived in cities (and this group undoubtedly included many Tajiks in Samarkand and Bukhara who were erroneously registered as Uzbeks). At the time, Tashkent had a population of about two million and five other cities in Uzbekistan had populations over 200,000, but these populations had a disproportionate number of Russians and other non-Uzbeks. Uzbeks have also been under-represented in institutions of higher education and, even more so in technical and scientific professions. Russians, on the other hand, wielded inordinate political power in the republic until the dissolution of the Soviet Union, and continue to occupy a disproportionate number of technical and senior managerial positions in industry and agriculture.

Current Demographics:

According to the 1989 census, 14 million of the 19.8 million people in the republic are Uzbek, accounting for 71 percent of the population, while 932,000, or 5 percent are Tajik. These figures, however, probably significantly overstate the Uzbek population and understate the number of Tajiks since many Tajiks were erroneously identified as Uzbeks at the time Uzbekistan became a Soviet Socialist Republic in 1924. The census further identified 1.6 million (8 percent) as Russian speakers, 808,000 (4 percent) as Kazakh, 468,000 (2 percent) as Tatar, and 175,000 (1 percent) as Kyrgyz. The figure for Kyrgyz, like that of Tajiks, is also suspect; some reports put the Kyrgyz population in excess of 600,000. Approximately 411,000 people lived in the autonomous republic of Karakalpak at the time of the census; other sources have suggested that there are up to 3 million people in that region.

As in several other Central Asian republics, population growth is encouraged by government policy. Mothers who bear five children are awarded a Motherhood Medal, and those who produce 10 children are proclaimed Heroine Mothers. The average family size is 6.2 and demographers calculate that the population growth rate of 3.7

percent will yield a population of 25 million to 26 million by the year 2000.

The area from Bukhara eastward through Samarkand and Tashkent and the Fergana Valley is the most densely populated in the former Soviet Union. There are reportedly 435 people per square kilometer in the Andijan Oblast, 93 percent of whom are officially identified as Uzbek and 54 percent of whom are under the age of 14.

The vast majority of the Tajiks in Uzbekistan live in the Sirgania, Samarkand, Sukhand Daria, Dernes, and Bukhara oblasts. Tajiks make up 50 percent or more of the population in some of these areas, although many continue to be identified on their passports as Uzbeks. Fully half of the Russian-speaking community resides in Tashkent. Russians comprise about 44 percent of that city's total 2 million people.

Roughly equal numbers of Uzbeks, Karakalpaks, and Kazakhs, live in the Karakalpak Autonomous Region of western Uzbekistan. The population in the region has been decreasing recently at the rate of about 20,000 per year due to severe ecological problems. Demographers worry that if irrigation problems of the Amu Darya River, which have led to the drying up of the Aral Sea, and accompanying salt contamination and other ecological problems, are not resolved, the remaining Karakalpak population will have to be moved to the east.

Emergence of Uzbek Nationalism:

There is a strong and growing sense of Uzbek nationalism that has developed since independence. It appears to be more developed than in other Central Asian republics and, combined with economic problems, lies at the heart of the ethnic tension that exists in Uzbekistan. Uzbeks strongly resent any interference by outside authorities, such as the demand by Tajikistan for dual governance of Samarkand and Bukhara. Internally, this nascent nationalism is evident in the mandating of Uzbek as the national language and in the obvious animosity that many Uzbeks feel toward the Russian-speaking population. It is also emerging in the various political entities which are beginning to organize against the ubiquitous mafia and which are campaigning for stronger nationalist policies. The Karimov government is widely regarded as astute, manipulative and corrupt, but the extent to which it uses these groups to achieve a hidden agenda remains unclear. The rising sense of Uzbek nationalism has led to several clashes with several non-Uzbek nationalities and has contributed to non-Uzbek emigration from the republic, in particular from Andijan oblast and to a lesser extent from Fergana oblast.

Uzbek-Russian Rivalry:

President Karimov has proclaimed a national policy establishing Uzbekistan as a country open to all nationalities. Despite outward declarations of goodwill toward each other, however, both Russians and Uzbeks openly acknowledge the tension between them. Uzbeks are resentful of the years of domination under Soviet rule and are responding with ardent nationalism, while Russians fear exclusion, loss of power and the increase in Islamic traditions. As a result, many Russians are leaving Uzbekistan. Demographers estimate some 35-40,000 Russians have left each year since an ethnic clash occurred in 1989, and the number departing has increased since the breakup of the Soviet Union.

The ethnic conflict involving the Russian community occurred in the Andijan Oblast in May 1989, following a scheduled football match for which one team failed to appear. The disgruntled fans stormed out of the stadium and attacked and burned 20 homes of wealthy individuals, primarily Russians and Armenians. The mostly young males reportedly carried a list containing names of individuals whose homes they sought to destroy. After the incident, 80 percent of the Russian population in the oblast reportedly left the country.

Russians who remain in Andijan complain they have lost their jobs due to their inability to speak Uzbek. Officially, non-Uzbek speakers have been given ten years to learn the language, and both Russian and Uzbek are official languages until 1999. In practice, however, some official meetings attended by non-Uzbek-speaking Russians are addressed entirely in Uzbek, excluding the Russians from meaningful participation. For their part, Russians often barely mask their disdain for Uzbek language and culture and, for the most part, have adjusted to being a minority in an independent country.

The on-going exodus of Russian-speaking individuals has reportedly caused a shortage of educated technicians to fill positions in the Fergana Valley (although unemployment in the agricultural sector is a serious problem). Some Uzbeks living in Russia are returning to fill in the gaps in industry, particularly in Amalyk, Uchkudu and other industrial towns inhabited primarily by Russians.

In direct counterpoint to the Russian fear of growing Islamic influence, the leader of Sadum, a Sunni Muslim organization, expressed concern about Christian proselytizing (which is notably being carried out by Baptists) and predicted that it might lead to confrontation in the future.

The Russian-Uzbek tension carries potential for further conflict. The number of Russians living in the Fergana Valley may have decreased significantly, but there are still approximately 1.5

million Russians in Uzbekistan, fully half of whom reside in Tashkent. Although the current situation appears to be stable, and both groups are making outward efforts to promote good relations, there appears to be enough resentment between the two that even a small incident could trigger open ethnic conflict. The worsening economy will only exacerbate this tension, particularly as the technical skills of the Russian community will largely shield it from layoffs, while the population growth rate of the Uzbek community is producing large and increasing numbers of new entrants into the labor market each year.

Jewish-Uzbek Rivalry:

Demographers record Jewish emigration as a separate category from Russians (Europeans.) In 1979, the number of Jews in Uzbekistan was 99,000, accounting for 0.6 percent of the population. By 1989, the number had declined to 65,000 or 0.3 percent.

In interviews Uzbeks repeatedly and openly stated their dislike for Jews. The growing popularity of Islam is putting pressure on non-Muslims, and Jews appear to be a conspicuous (and historic) target. However, as many Jews have already left Uzbekistan, the potential for actual conflict is minimal.

Tajik-Uzbek Rivalry:

Officials in Tajikistan allege the Tajiks in Uzbekistan have been generally oppressed: Tajiks have been deliberately registered as Uzbeks, Tajik language schools have been closed, Tajik newspapers shut down, Tajik language radio and television broadcasts terminated, and media broadcasts from Tajikistan jammed. Tajikistan has also demanded joint governance of Samarkand and Bukhara and, rebuffed on this issue, has refused to sign with Uzbekistan a Central Asian Republics memorandum of understanding to respect the existing borders and to guarantee minority rights within each republic.

In fact, many of these charges had a basis under the former Soviet regime, but appear to no longer be true. Tajiks were registered as Uzbeks in 1924, when Uzbekistan officially became a Soviet Socialist Republic and the authorities in Moscow were eager to define the Central Asian republics in terms of ethnicity rather than regionality. Similarly, Tajik language schools were closed down in 1968 under orders from Moscow, and Tajik language media may have been banned at the same time. Seeking to remedy these historical abuses, two Tajiks began a hunger strike in a Samarkand teahouse last summer and a Samarkand university professor called upon Tajiks in that city to rise up against oppression. Both of the hunger strikers reportedly lost their jobs and one was arrested for possessing a weapon, a charge he claimed was fabricated. The university professor retained his position and the Karimov

government moved quickly to undercut any popular support the three men may have aroused, establishing a commission made up of journalists, lawyers and Tajik intelligentsia to deal with Tajik issues.

Tajiks were immediately given the right to amend the nationality listed in their passports, several Tajik language schools were opened in Samarkand and Bukhara, a Tajik language newspaper was established in each city, and extensive Tajik-language television and radio broadcasts were initiated. In any case, there appeared to be little support for any form of Tajik irredentism. The Tajik communities in both Samarkand and Bukhara are relatively cosmopolitan, and are particularly active in petty trade and commerce. Because of their historical role as centers of culture, these communities are loathe to placed in a subordinate position within a Greater Tajikistan. Very few Tajiks have opted to change their nationality designation, even though the process appears to be uncomplicated and relatively easy, although the opening of Tajik language schools, and the renewal of Tajik language broadcasts and newspapers have been very popular politically.

Kyrgyz-Uzbek Rivalry:

The main issue affecting Kyrgyz-Uzbek relations to date has been land distribution in the Kyrgyzstan oblast of Osh, part of which belonged to Uzbekistan before Stalin incorporated it into Kyrgyzstan in the 1920s. Tensions between the two nationalities erupted into open conflict in Osh in June 1990 over the reportedly inequitable distribution of land in a privatization effort. Violence continued for five days and perhaps a score of people were killed before the situation was brought under control. During and immediately following the event, Kyrgyz on the Uzbekistan side of the border (who by some estimates outnumber the 580,000 Uzbeks in Kyrgyzstan) were fearful of a spill-over effect: the displacement of Uzbeks in Kyrgyzstan could well result in the displacement of Kyrgyz in Uzbekistan.

The Kyrgyz government has the situation under control for the moment but economic deterioration in Kyrgyzstan could again give rise to ethnic conflict in that country that which would reverberate in Uzbekistan (see Kyrgyzstan Report, Migration Issues).

Meskhetian Turks-Uzbek Rivalry:

In May 1989, violence broke out in Fergana between Uzbeks and Meskhetian Turks over a dispute at the market. Five people were killed and the riots ended only when the Russian military airlifted 30,000 Turks out of the area into Russia. The conflict apparently was the culmination of ethnic tension that had been growing for

some time. Since then, authorities have reconstructed the Turks' houses and invited them to return but only approximately 20 families have done so. In all, 98,500 Turks left the valley. Due to the small number of Turks currently residing in Uzbekistan, the likelihood of serious friction between the two nationalities is negligible.

Intra-Uzbek Rivalry:

Several leading scholars at Tashkent University suggested that, although inter-ethnic rivalry is a potential source of conflict should nationalist fanatics push nationalism to the brink and force Russians to leave, the Uzbek intelligentsia who have supported the rights of Russians may be the first point of attack.

Muslim Issues:

President Karimov has embraced the Turkish model of development for Uzbekistan, creating differences with the fundamentalist Muslim Renaissance Party which represents a small minority of Uzbeks. The majority view is represented by Sadum which backs the Turkish model. No evidence of conservative Wahabism was discerned in Uzbekistan, but there are various fundamentalist groups such as Adolat ("Justice") in Namangon, an area known to have a large number of Iranian-backed fundamentalists who are opposed to Sadum.

In January 1992, several people stormed and occupied a city building in Namangon, raising the green flag of Islam and declaring the building a Muslim center. The local authorities did not respond, apparently out of fear of repercussions from Adolat. On March 27, several men attacked the Uzbek representative in Moscow and demanded a halt to the oppression of Muslims, and the freedom of several Adolat leaders who had been arrested on criminal charges.

Women:

Some Uzbek women have expressed concern about their future in the republic because of fundamentalist Muslim political activity. In Namangon, for example, several women were reportedly beaten for wearing makeup and cutting their hair, and the conservative Muslim Renaissance is actively promoting the use of the veil and other fundamentalist practices for women, so far without much success.

In Tashkent, Russian women also expressed some concern regarding the emergence of Islamic fundamentalism, but were hopeful that Muslim women, at least in Tashkent, would stand up for their rights. To justify their optimism, several women cited an incident in July 1991, when a mullah in the old city of Tashkent was attacked by a group of women regarding his advice to men to keep

their wives and daughters at home. As in the Fergana valley, some women in Tashkent, both Uzbek and Russian, said they would be forced to move if Islam took a strong hold in the society. However, most expressed optimism that Uzbekistan will follow the Turkish model of separation of church and state.

Land Use:

The density of the population in some areas of Uzbekistan affects the government's ability to privatize land, and could potentially create conflict over ownership. In the Fergana Valley, where the population density in some areas is upwards of 400 people per square kilometer, the issue of who may purchase land has become a very sensitive subject. In Fergana Oblast, senior officials stated that privatization could not continue due to extreme pressure on land. However, officials at one collective farm indicated they were prepared to sell additional land to any of the eight private farmers who had purchased two hectares each from the collective in order to engage in dairy farming.

Interestingly, the eight private farmers in Fergana included four Uzbeks, two Kyrgyz, one Tajik, and one Turk. Officials insisted that applications were not processed with any regard to ethnicity, but the actual ethnic distribution suggests political appeasement. In the neighboring oblast of Osh, in Kyrgyzstan, ethnic violence resulted from what was regarded as the inequitable distribution of land between Kyrgyz and Uzbeks.

Despite the extreme pressure on land, Uzbeks generally have refrained from migrating to urban areas, placing increasing social and cultural value on land in rural areas. Accordingly, privatization of land and farmers' rights are issues that contain significant potential to provoke friction, and possibly even conflict.

Water Rights:

The Ministry of Water Affairs does not perceive water rights to be a problem. However, irrigation water is known to be critical to Uzbekistan's agricultural needs, and generally in short supply. Approximately 85 percent of Uzbekistan's present water supply flows from the neighboring republics of Kyrgyzstan and Tajikistan. The potential for ethnic conflict between Kyrgyz and Uzbeks in Kyrgyzstan (and, to a lesser extent, in Uzbekistan) clearly exists, although whether any such conflict would affect future water supplies is not clear. Tajikistan, meanwhile, has refused to sign with Uzbekistan the memorandum of understanding executed with all other Central Asian republics that guarantees mutual respect for the existing borders and protection of minority rights within the respective republics. The prospect that injudicious use of water or failure of republics to consult about water use could provoke ethnic tension, or, conversely, that ethnic conflict could result

in the use of water as a weapon, cannot be dismissed. One demographer in Uzbekistan mentioned water rights as a looming problem which, "could cause rifts between brothers."

Observation:

Although there has been an obvious and widespread return to Islamic values in Uzbekistan since independence, Islamic fundamentalism has to date made little progress in attracting adherents. However, there is an abundance of popular issues, government corruption, land ownership, environmental degradation, unemployment, and ethnic tension, that could readily be used to advantage by Islamic or political conservatives. Uncertain how to use their newly acquired independence, the Uzbek population could well seize upon xenophobic or fundamentalist solutions to the myriad problems that might otherwise appear overwhelming.

Although the notion of a unified Central Asian Republic ("New Turkestan") is not entirely without adherents, the vast majority of Uzbeks seem preoccupied with basic domestic economic issues and with achieving their rights within their own homeland. Uzbeks appear to recognize enough rivals within their own borders that they have no need to seek external protagonists.

FOOD PRICES (MARCH 1992)

Food Type	State Store	Free Market	
		Tashkent	Fergana
Bread	1.5/loaf*	2.5/flat loaf	2.5/flat loaf
Pasta	3.10+	10	10
Barley	-	-	10
Wheat flour	1.8+	-	-
Millet	-	-	-
Rice	5+	30	30
Potatoes	3.3	6	6
Onions	2.76	5	3
Radish	-	2	1.5
Carrots	.96	3	2
Beets	1.68	4	4
Milk	1.5*	-	-
Butter	60*	110	-
Cream	-	60	50
Eggs	5/10 eggs	15/10 eggs	15/10 eggs
Beef	-	70	70
Pork	-	-	-
Chicken	-	65	70
Lamb	-	80	80
Sausage	-	87	85
Fish(smoked)	-	24	-
Apples	-	60	50
Sugar	8+	-	-
Salt	.4	-	-
Tea	310/100g	-	-
Soap	.95+	-	-

Note: All prices rubles per kilo unless stated
* Prices with coupons
+ Prices with "talon" or ration card

1) Bargaining is common and in many cases substantially reduces the price.
2) A wide range of fruit and vegetables were available in the free market. Vegetables in the state stores were of poor quality

LIST OF CONTACTS

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Non-governmental organizations

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PUBLIC HEALTH

HUMANITARIAN ASSISTANCE NEEDS

IN

CENTRAL ASIA

Public Health Surveillance

The systems for the collection and analysis of health outcome information utilized in the five Central Asian republics are based on the reporting systems established in the former Soviet Union. In each republic, health information is centralized under the control of the republic Ministry of Health (MOH).

The information collected by the MOH contains three main categories of health outcomes: (1) infectious diseases, (2) non-infectious diseases, and (3) mortality. The basic direction of information through the hierarchical system is similar for all health data. The data flows from the local level (*rayon*) to the district level (*oblast*), and finally to the republic level. Minor differences exist in the specific pattern of data transfer and are contained in the individual country reports.

Significant differences exist in the timeliness of the three categories of health-outcome data. Physicians report information on infectious diseases to the district Sanitary Epidemiological Stations (SES) promptly (this varies from hours to 3 days in different republics). These data are then forwarded to the chief epidemiologist at the republic level by mail (this varies from weekly to monthly in different republics). Outbreaks are phoned-in immediately. In contrast, non-infectious diseases and mortality data (obtained from death certificate records) are not timely and are collected and published yearly. These data are reported as a simple line-listing, and are not in a form that can be manipulated for more detailed analyses.

A priority for U.S. Government assistance to the public health sectors of the Central Asian republics would be help in establishing a system of surveillance for emergency public health situations. Such a system could employ the available health data collection infrastructure and use computerized technology. A number of indicators of changes in health conditions should be monitored within such a surveillance system. Such indicators might include the following:

> measles and pertussis incidence rates; bacterial dysentery and hepatitis incidence rates; incidence of anemia in pregnant women; age-specific death rates for persons 65 years and over; length of stay for patients hospitalized with selected chronic diseases (e.g. hypertension); hospital admission rate for diabetics; operative mortality rate for selected surgical conditions; perinatal

mortality rate in sentinel maternity hospitals; and bronchial asthma-specific mortality. (Toole, Michael. 1992. Report on Health Situation in Russia. Centers for Disease Control)

Evaluation of the existing health information collection systems in Central Asia indicates that, while the basic structure of the systems within the five republics is similar, there exist significant differences between the republics in terms of technological assets and degree of computer expertise. The republics may be grouped into the following two tiers: (1) those republics with a moderate degree of computer sophistication (Kazakhstan, Kyrgyzstan and Uzbekistan) and (2) those republics with little or no experience with computers (Tajikistan and Turkmenistan). In addition to the basic proposal outlined below for implementing a surveillance system, additional training in basic computer operation for the latter republics is proposed.

Recommendations:

To establish an Emergency Public Health Information Surveillance System the following steps are recommended:

(1) Identify representative sentinel sites in each republic for the collection of non-infectious and mortality data. These sites could be hospitals, rayons, or even *oblasts*, depending on the republic.

(2) Fund local field workers to be stationed in these sentinel sites. They should be hired specifically to facilitate the timely collection and reporting of the required data. Because of the strength of the dollar, labor costs should be no more than $1,000/year for each republic. The local MOHs should be responsible for identifying and hiring these workers.

(3) Fund three local employees to be stationed in the capital cities of each republic. These should be English speakers, preferably with some computer skills. Two of these workers should be stationed in each Republic Sanitary Epidemiological Station and the third should be stationed in the Republic Informational Calculative or Statistics Center. The first employee will function as the team leader. All three employees will work closely with the U.S. technical advisors and will become proficient in the use of EpiInfo (Centers for Disease Control [CDC] epidemiological software). By stationing these employees in the main computer centers of the republics, it is anticipated that other personnel will become proficient with the use of

EpiInfo. Estimated total labor costs for these workers would be $1,500/year for each republic.

(4) Assign two teams of U.S. technical advisors (each team composed of an epidemiologist and computer specialist) proficient in analytical epidemiology and computer skills, to each of the two areas for several three-month periods. These should be CDC personnel. One team would be assigned to the first tier republics and the other to the second tier republics. In addition, a fifth computer technician should be assigned to rotate through all five republics for initial computer system installation and set-up. This person would then concentrate on providing appropriate computer training to staff in the second tier republics. Estimated total cost for this would be $20,000/month for each advisor.

(6) The continued success of this program requires an investment in epidemiologic and computer science training for staff chosen to implement this system. This training should be both immediate and intensive. Longer-term commitments to building the epidemiologic infrastructure of the republics by training are also advisable. This should include establishment of a Field Epidemiology Training Program (FETP) in a location readily accessible to the Central Asian republics. Moscow seems a good choice. In addition, CDC should offer two one-week courses on surveillance systems, data analyses, and presentation in Tashkent, Uzbekistan, within 90 days for all Central Asian staff. These courses should be taught by CDC staffers and should follow the pattern proposed for Moscow.

Emergency childhood immunization support

As part of the U.S. emergency humanitarian assistance to the CIS the Agency for International Development has allocated funds for an Emergency Childhood-Immunization Support Program in three targeted areas. Implementation of this support is the responsibility of two AID offices: the Office of Foreign Disaster Assistance (OFDA) and the Bureau of Research and Development/Office of Health (R&D/Health). The objective of this effort is to ensure that children under the age of two years are protected against the common vaccine-preventable diseases.

The Emergency Childhood Immunization Support Program is a response to an earlier assessment (January-February) of health needs in the CIS by a Food and Humanitarian Assistance (FHA) team that indicated that vaccine-production problems had led to greatly reduced vaccine supplies, resulting in a serious

reduction of immunization coverage rates for newborn children. The assessment warned that if low immunization coverage continued, there was risk of increased disease incidence for the immunizable diseases (especially measles, pertussis, and diphtheria, but also polio, tetanus, and tuberculosis) and resulting unnecessary morbidity, suffering, and even death. That assessment noted that in some areas of the Russian Federation there was already evidence of increased incidence of measles, pertussis, and diphtheria.

Given the limited resources available for the Emergency Childhood-Immunization Support Program, a pre-assessment discussion explored the relative merits of potential assistance areas. The question of urban areas versus entire republics was also considered. It was finally decided that an assessment should be carried out in, and limited to, the Central Asian republics. In addition, an effort should be made to closely examine the relative merits of supporting immunization activities in selected major urban areas versus immunization activities covering the entire populations of republics with small populations.

The assessment included visiting each of the Central Asian republics to explore with relevant authorities the need for, and interest in, short-term emergency immunization support, which could begin as early as late April or early May.

The immunization team joined the FHA team, which was beginning its visits to the Central Asian republics, to continue the work started in January. The immunization team joined the larger group in Kazakhstan, where it split into two groups, one to visit Kyrgyzstan and Uzbekistan, the other to visit Tajikistan and Turkmenistan.

A format for information gathering was developed that would ensure that the teams collected comparable data from the different countries. Within each country, officials at the national level responsible for immunization activities and vaccine storage were interviewed. To the extent that time permitted, discussions were also held with persons responsible for immunization activities and vaccine storage at the regional (*oblast*), district (*rayon*) and clinic levels. Attempts were made to visit clinics of various sizes, ranging from large urban clinics to small rural ones.

Findings:

Immunization activities in the Central Asian republics are not yet severely compromised, but vaccine shortages are either already beginning to be felt or will soon be felt if consignments anticipated from manufacturers in the Russian Federation fail to

materialize. Except for Kyrgyzstan, there did not appear to be a realization that vaccine supplies were likely to be interrupted in the near future.

In each of the states, serious shortcomings in the cold chain were noted. While the overall cold-chain infrastructure was solid, with conceived strategies for distributing vaccine, there was uniformly insufficient equipment and, in some cases, knowledge, to carry out the strategies in a manner that would provide maximum protection to the vaccines. This is a serious problem, since summer temperatures in the region routinely reach 40 degrees Centigrade or more. Several republic programs recognized the inadequacy of their cold chain during the hot periods of the year and restricted or ceased vaccination activities during this period.

The team also found insufficient supplies of disposable syringes in each of the republics. Each program had adequate supplies of reusable syringes (although the number of needles for these syringes appeared to be suboptimal). Immunization program officials stated clear preferences for disposable syringes, but when supplies run out, the clinics switch to reusable syringes. Sterilization procedures appeared to be adequate, although some clinics were in need of improved sterilization equipment.

Kyrgyzstan:

Kyrgyzstan has a population of approximately 4.5 million. The crude birth rate and infant mortality rate are, respectively 29 and 30 per 1,000.

Immunization coverage has dropped in recent years. Only measles vaccine and possibly polio will be needed, since a system of vaccine procurement through contracts with Russian manufacturers continues uninterrupted for other vaccines. The MOH is prepared for a return to a reusable syringe policy due to a 15-fold increase in the cost of disposable syringes and due also to the unacceptable prospect of continued reliance on unsustainable donor support. Emergency procurement of disposable syringes and a limited number of steam sterilizers and cold-chain equipment will be needed.

Uzbekistan:

Uzbekistan has a population of more than 20 million, which is 50 percent more than the combined populations of Kyrgyzstan, Tajikistan, and Turkmenistan. The crude birth rate and infant mortality rate are, respectively, 33 and 38 per 1,000.

Immunization coverage has risen in recent years, but the possibility of a measles outbreak persists due to a measles

vaccine stock-out which began in late 1991. Recent UNICEF-supplied measles vaccine will be exhausted by midsummer.

Given its large population and high birth rate, addressing Uzbekistan's major need for cold-chain support will require considerable resources. A coordinated response from the international donor community will be required to tackle the magnitude of the need. One area where the World Health Organization (WHO) and CDC might be able to play a significant role is in tackling the problem of false contraindications.

Tajikistan:

Tajikistan has a population of approximately 6 million. It is one of the poorer republics in the CIS. It has an infant mortality rate of 40/1,000 and a crude birth rate of 38/1,000.

Immunization coverage is high, but vaccines are in short supply. Polio and measles vaccine (the latter from Pakistan) were received in March 1992, but even with these supplies, vaccinations can only be assured for newborns for about three months, and this only if the normal schedule of re-vaccinations is abandoned in favor of newborns.

A decent cold-chain infrastructure exists, but additional equipment is needed to make it function properly. Key personnel at all levels could benefit from training of the type designed by WHO.

Turkmenistan:

Turkmenistan has a population of approximately 3.8 million. The republic is relatively rich in natural resources, but the standard of living remains relatively low. The republic has an infant mortality rate of 45/1000 and a crude birth rate of 30/1000.

Immunization coverage is generally high, although measles coverage has fallen considerably in recent years. This appears to be due to insufficient vaccine. A shipment of measles vaccine was received from UNICEF in March. It is large enough to meet the needs of newborns for some six months, if there is no wastage and the cold chain can maintain the vaccine that long. Unless anticipated consignments of vaccine arrive from the Russian Federation, the program will likely face vaccine shortages for all antigens except measles in two to three months.

Other than Russian-made picnic baskets, the program has no vaccine-transportation equipment. This is a serious matter in a country where temperatures exceed 40 degrees Centigrade for four or five months of the year. Some cold-chain equipment is needed immediately to assure the safety of vaccines. Personnel at all

levels could also benefit from the type of cold-chain training designed by WHO.

Kazakhstan:

After discussions with the FHA team that had just completed its assessment of Kazakhstan and a review of available demographic and health status data, the team concluded that Kazakhstan was a less-likely candidate for assistance than the other states.

Recommendations:

- Kyrgyzstan, Tajikistan, Turkmenistan, and the Tashkent *oblast* of Uzbekistan should be selected for assistance by the Emergency Childhood-Immunization Support Program. This recommendation is based on the following factors:

  The size of Kazakhstan and the population of Uzbekistan make both states unattractive candidates, since it would not be possible for the emergency effort to provide assistance to their entire national populations. National officials in each state would be uncomfortable with assistance that required them to favor one geographical area over another. Also, it would be difficult to ensure compliance with restrictions on the assistance.

  The relatively small national populations of Kyrgyzstan, Tajikistan, and Turkmenistan (total of approximately 500,000 newborns per year) would allow the available funding to cover the entire country instead of selected geographical areas.

  All three states are in need of assistance. In at least Tajikistan and Turkmenistan, there is danger the program could cease if additional vaccines are not received within the next several months.

- Specific vaccine needs should be worked out for each of these states in coordination with UNICEF to avoid duplication and to assure that total vaccine needs are met for a one-year cohort of newborns. This will allow each state time to get its own vaccine procurement arrangements in place and will do much to assure that on-going vaccination programs continue uninterrupted.

- Enough disposable syringes should be shipped with vaccines to assure that all the vaccines can be administered with disposable syringes.

- Enough cold-chain equipment should be provided to assure that shipped vaccines can be kept safe up to the time of administration. It may be necessary to provide vaccines in several staged shipments, given the uncertainty that vaccines could be kept safely throughout the coming summer months.

- Well-qualified logistics and cold-chain experts should be sent to each of the selected republics prior to the arrival of vaccines to assure that minimum cold-chain requirements are correctly anticipated and met and to procure additional materiel.

- A well-seasoned resident EPI expert should be assigned to cover the three countries to provide continuous technical guidance for the emergency effort.

- Modest amounts of steam sterilizers should be provided to each of the republics to meet short-term needs, but also to introduce standard EPI technology to the national programs.

- OFDA and R&D/Health (perhaps through REACH) should communicate with UNICEF regarding the status of cold chains in the Central Asian republics. Statements by UNICEF officials regarding the adequacy of the cold chains in these states are not consistent with the findings of this team.

TABLES

HUMANITARIAN ASSISTANCE NEEDS

IN

CENTRAL ASIA

CENTRAL ASIA: CONTRIBUTION OF PERSONAL HOUSEHOLD PLOTS IN AGRICULTURAL PRODUCTS, 1989

Republic	Arable Land (1,000 Ha)	Gross Agricultural Production (Mill.Rubles)	Gross Crop Production (Mill.Rubles)	Gross Livestock Production (Mill.Rubles)
Kazakhstan	163.0	4251.9	457.1	3794.8
Uzbekistan	263.0	2642.3	666.4	1975.9
Kyrgyzstan	62.0	907.1	144.5	762.6
Tajikistan	41.3	561.9	226.8	335.1
Turkmenistan	26.9	443.0	71.0	372.0

ESTIMATED ANNUAL COTTON AREA, YIELD AND PRODUCTION, 1990

All the cotton in former USSR is produced in Central Asia republics and Azerbaijan. During 1990, the estimated share of each of the republics was as follows:

REPUBLIC	SHARE IN AREA (%)	SHARE IN PRODUCTION (%)
Uzbekistan	58	61
Turkmenistan	20	18
Tajikistan	10	10
Azerbaijan	8	7
Kazakhstan	4	4
Kyrgyzstan	1	1
TOTAL	100	100

Cotton is an important export crop. During 1989, cotton accounted for 50% of total agricultural exports.

CENTRAL ASIA: INTER-REPUBLIC TRADE IN FERTILIZERS (NUTRIENTS) DURING JAN-OCT 1991

REPUBLICS	Internal Import	Internal Export	Net Internal Trade	Foreign Export
	(1,000 Tons)			
Kazakhstan	242	983	741	21
Uzbekistan	234	803	569	221
Kyrgyzstan	233	---	-233	---
Tajikistan	254	50	-204	---
Turkmenistan	225	54	-171	6

CENTRAL ASIA: PERCENT DISTRIBUTION OF AGRICULTURAL, ARABLE AND IRRIGATED LAND, BY REPUBLIC, 1990

REPUBLICS	Agricultural Land (a) Million Ha	Arable Land Million Ha	Irrigated Land (b) Million Ha	Irrigation Intensity (c) (%)
Kazakhstan	197.6	35.5	15.8	7
Uzbekistan	26.4	4.5	2.0	92
Tajikistan	4.3	0.8	0.4	86
Turkmenistan	35.8	1.2	0.5	100
Kyrgyzstan	10.1	1.4	0.6	74

(a) Consists of arable land, meadows and pastures.

(b) Under state and collective farms and other state agricultural enterprises, and accounts for 98% of all irrigated land.

(c) Irrigated land as percent of arable land

CENTRAL ASIA: REGIONAL LAND USE PATTERNS
November 1, 1990

Republic	Total Land	Agricultural Land*	OF WHICH		
			Arable	Meadows	Pastures
	(Million Hectares)				
Kazakhstan	271.7	197.6	35.5	4.6	157.2
Uzbekistan	44.8	26.6	4.5	0.1	21.5
Kyrgyzstan	19.8	10.1	1.4	0.2	8.4
Tajikistan	14.3	4.3	0.8	0.0	3.3
Turkmenistan	48.8	35.8	1.2	0.0	34.4

*includes orchards.

CENTRAL ASIA: DELIVERIES OF GASOLINE AND DIESEL FUEL TO THE AGRO-INDUSTRIAL COMPLEX DURING JAN-SEPT 1991, BY REPUBLIC

REPUBLICS	GASOLINE	DIESEL FUEL
	Quantity Delivered	1,000 Tons
Kazakhstan	1672	2708
Uzbekistan	669	1822
Kyrgyzstan	216	286
Tajikistan	160	264
Turkmenistan	254	581