



## CHAPTER 5

### 5. POST-SOVIET REALITIES IN CENTRAL ASIA

#### 5.1 INTRODUCTION

Chapter 2 provides an account of the pre-transition policies and their effect on Central Asia during Soviet rule. In this chapter information from chapter two will be highlighted to underscore the impact of these policies on the health of children under the age of five in the three Central Asian Republics which are the focus of this study. The three broad systems depicted in Figure 4.2 bring to light the role of these systems in the rising malnutrition and deterioration in health which characterises children under the age of five in Central Asia.

#### 5.2 SOCIO-POLITICAL CHANGES

The leaders of the Central Asian Republics were among the most conservative elements of the Soviet leadership cadres. From the beginning they questioned the value of the reforms and, until the very end, supported the continuation of the Soviet Union. They were not happy when the Soviet Union did finally disintegrate. Indeed, it would not be far-fetched to say that independence was thrust upon the Central Asian leaders, if not upon the peoples, almost against their will (Pomfret, 1999).

##### 5.2.1 Policies, governmental institutions and regional changes

Since becoming independent the Central Asian countries have faced a host of problems and challenges related to the process of nation and state building. These challenges range from the need to find an alternative value system that would replace communism to the need to reinvigorate and reform their economies, as well as to forge new relations among themselves, with their immediate neighbours, and with the rest of the world (Pomfret, 1999).

Even under the most favourable circumstances it would be very difficult for any country to meet such challenges successfully and promptly. However additional factors have handicapped the Central Asian countries - aside from factors common to all transitional economies their diverse ethnic and cultural



makeup, geopolitical configuration, resource endowment, lack of any sustained previous experience with nationhood and statehood, long periods of isolation from the rest of the world and its philosophical and political trends, the imprint of Russian colonialism, and the peculiarities of regional and international politics have all constituted stumbling blocks. Political instability in the region has also adversely affected economic growth (Olcott, 1996; Kort, 2004)

The process of disintegration of the Soviet Union has made the task of post-independence nation building daunting for the Central Asian countries. The geopolitical situation of these states has complicated their task of developing new relations with the outside world. Their cultural and religious traits and their natural resources have attracted the attention of principal powers and regional actors, drawing them into major regional and international political and ideological currents. This has made them vulnerable to outside forces competing for influence over the direction and character of their internal development and external relations. As a result of the fact that the states vary in size, ethnic composition, historical and cultural characteristics, resources, and geographical location they have developed quite differently since independence as was suggested in chapters 2 and 3. It may be suggested that, during the last few years however, certain common patterns have emerged – both in their political and economic development and in their external behaviour (Kort, 2004; Dowling & Wignaraja, 2006).

Firstly, post-independence political and economic developments in Central Asia have thus far not been promising. The political trend has been toward authoritarianism, a cult of personality, and a perpetuation in power of the old nomenclature, extending even beyond the inherent tenacity of bureaucracies. Nor have there been sustained efforts to build social and political institutions that could transcend regional, ethnic, and tribal proclivities, and thereby enhance national cohesion. Moves are afoot to revive the CIS, but certain of its members are wary of Russia's dominance over the other states. The CIS was disbanded months after its formation due to the 'big brother' role that

Russia began to assume – a role reminiscent of the Soviet period (Olcott, 1996:43-47).

In the case of Tajikistan, the political situation has become worse than it was under the Soviet system. The Uzbek-dominated communist leadership, with military assistance from Uzbekistan and Russia, has brutally suppressed the national aspirations of the indigenous Tajiks, thus turning Tajikistan into a virtual Russo-Uzbek colony and a battleground for competing regional and international actors (Olcott, 1996; Kort, 2004).

The Central Asian region's unsettled political conditions, plus its inadequate legal and bureaucratic infrastructure, have delayed and limited the influx of foreign capital and technology. Foreign relations are still evolving. Thus far, their shape and character have been chiefly determined by their internal political and economic conditions, the dynamics of regional and international political systems (most notably those related to great power priorities and policies), and the state of great power relations-especially the character of ties between Russia and the West (Olcott, 1996; Kort, 2004)

The process of economic reform and reinvigoration has also been slow and largely unsuccessful. The failure and the disruption of the Soviet-era economic system have seriously impaired economic conditions and lowered standards of living. During Soviet rule the CARs, as part of the integrated production system, were required to supply raw materials and other economic inputs to Russia. Russia, in turn, supplied them with finished manufactured goods. Matters were further complicated by the fact that the state owned enterprises (SOEs) in the CAR's had been under Russian management, international trade was controlled by Moscow, and private manufacturing was prohibited. The long-term result of these policies was experienced during and, especially, after transition. Russian management of SOEs meant that there was no opportunity for the locals to receive training which would have enabled them to take over during the transition and after most of the Russians had left. Under Soviet rule there were no opportunities to develop marketing relations

with foreign investors, or even with their own neighbours (Dowling & Wignaraja, 2006).

Despite early fears of a regional struggle in Central Asia, especially between Iran and Turkey, which could have led to domination by one of them, most Central Asian countries have managed to establish reasonable ties with neighbouring states, and have avoided coming under the influence of any of these states. In fact, most of the regional countries, except for Tajikistan, have skilfully manipulated the competition for influence in the region to their own advantage. Although they have expanded the scope of their external ties their relations with Russia have remained the most important. Russian influence is still paramount in this region, but Russia's internal problems, as well as the activist U.S. policies in the region, have somewhat weakened Russia's hold. Efforts have been made to bring about eventual economic integration, and greater security and political cooperation among the Central Asian countries. However these efforts have thus far been as inconclusive as the efforts made to reintegrate the CAS (Olcott, 1996; Kort, 2004).

Rivalries and competition for influence have emerged among the Central Asian states and their leaders. So far, Uzbekistan, the main contender for regional supremacy, has already succeeded in subduing Tajikistan. Potentially, Kyrgyzstan and Turkmenistan could become the targets of Uzbek expansionism. By mid-1995, the West had also appeared to favour Uzbekistan's assuming the role of regional great power and fortification against Russian hegemony and Islamic extremism. However, Uzbekistan's bid for supremacy is likely to be resisted by other countries, notably Russia. Regional and international competition to determine the political map of the region will continue, and the present balance of power will almost inevitably be subject to change during the coming years. These external influences will probably affect the internal developments of the Central Asian countries. The most important of these developments include Russia's domestic evolution, its approach toward the CIS countries, the response of the West to Russian behaviour, changes in neighbouring countries as well as in the broader Middle

East region, and in the nature and character of the relations of the West with the Muslim world (Olcott, 1996; Kort, 2004).

In short, despite the superficial political, institutional, and even cultural homogeneity achieved during the Soviet era, other deep-rooted influences predating Russian and Soviet rule persist in Central Asia and affect the way the various republics receive and react to external influences. These forces and their impact must be adequately assessed in any analysis of the current social and political scene of Central Asia, its future evolution, and its regional and international relations.

### **5.2.2 Global and international changes**

The transition to a market economy imposes new kinds of relations between the state and its citizens, and affects the welfare of the ordinary population. State institutions in Central Asia still claim to take the necessary measures to protect minimal living standards. However, the scale of these measures is not as broad and comprehensive as it was under the FSU. During Soviet rule a comprehensive network of systems providing social services, social protection/safety, and social assistance had been established (Bauer et al., 1998; Falkingham, 2000).

These systems were costly, especially because under Soviet rule there was little focus on the efficiency of resource use. More than fifty percent of the budget was devoted to the social sphere with scant attention paid to the environment. This was made possible only by large transfers from the Central Government of the FSU. The break up of the FSU resulted in independence for the Central Asian Republics in 1991, and was accompanied by the withdrawal by the Soviet government of subsidies, especially to industries. This resulted in a severe economic depression across the region and affected individual lives and relations within states, local communities and families (Bauer et al., 1998; Falkingham 2000). This made the maintenance of social safety nets more difficult as budgets were stretched and thus poverty increased rapidly (Dowling & Wignaraja, 2006).



The CARs emerged from the FSU with a number of difficult legacies. Buiters (2004) asserts that they were all faced with what he calls a 'triple transition challenge'. They were forced to move from central planning to a market economy, from totalitarian communism to pluralistic, open and democratic forms of government, and from colonial subjugation to independent nationhood. More than thirteen years later none of the countries included in his study, including four others (Armenia, Azerbaijan, Georgia and Tajikistan), have fully achieved any of the above transitions (World Bank, 2005a).

Clearly, as indicated earlier in Chapter two, the problems that the republics currently face are a legacy of the Soviet Union. In Uzbekistan for instance, institutional and organisational changes after 1991 that were meant to be enabling factors for land reform, including privatisation, local water management and agricultural production, floundered from inception. Collective farm managers and the hydro-technicians of the collective farms controlled land allocation, and dominated the newly established farmers after independence. The majority of Uzbekistanis experience personally the impact of the economic challenges to which Uzbekistan is exposed. There has been a decline in cotton and wheat production. This not only affects unemployment, but also means a decline in food production, which translates into a decline in food distribution per household. However, the system of basic services provision, left over from the period of the Soviet Union domination, enables the state to continue to provide for the people's basic needs (Wegerich, 2003; Dadabaev, 2004).

In the early 1990s Kyrgyzstan's democratic credentials were regarded as relatively strong. This reputation was subsequently lost as corruption and nepotism took hold. Parliamentary and presidential elections were flawed; opposition figures faced harassment and imprisonment while opposition newspapers were closed. While Kyrgyzstan does possess oil and gas resources it nevertheless imports the vast bulk of what it needs. The economic situation is dire, particularly in the south, where the rate of unemployment is very high and poverty is widespread (Babu & Reidhead, 2000).

Poverty is widespread in Kazakhstan and the country continues to face major economic challenges, particularly in respect of unemployment and inflation. At the same time, since independence an elite group of people have grown very wealthy through privatisation and business deals which opposition figures allege have been corrupt (Dowling & Wignaraja, 2006).

The transition involves huge social and economic costs, and, as always, these costs are being borne by the most vulnerable members of society. In particular, it is the children who are bearing the brunt of the cost of transition. They face the closure of health and education facilities. For poor families the difficult task of feeding children is exacerbated by declining social welfare assistance allowances, and by increased unemployment. Deteriorating health indicators, including a greater incidence of malnutrition, clearly demonstrate the impact of transition (Bauer et al., 1998; Falkingham, 2000).

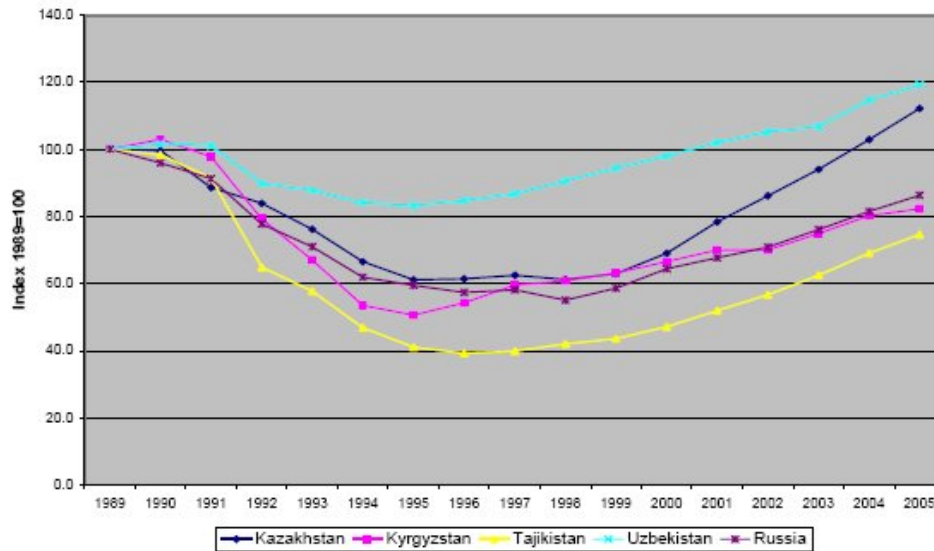
### **5.3 SOCIO-ENVIRONMENTAL CHANGES**

In this section seven major categories of social level factors of importance to child malnutrition are identified: poverty, unemployment, food security, natural resources, agriculture and health. These social forces directly and indirectly affect the nutrition of children. A complex relationship exists between poverty, employment, income, expenditure and access to land. A discussion on one of these issues inevitably leads to a discussion on the others.

#### **5.3.1 Poverty**

Although it is a relatively poor region during Soviet rule poverty in Central Asia was masked or cushioned by extensive social protection and social assistance systems which provided help on an entitlement basis to many beneficiaries, particularly children and their families. All of the CAR's suffered severe reductions in real output following the collapse of the Soviet Union, as is illustrated in Figures 5.1, & 5.2 (Falkingham, 2000; UNICEF/WHO, 2005; World Bank, 2005b; Asian Development Bank (ADB), 2006).

Figure 5.1: Changes in real GDP Index, 1989-2005 (1989=100)



Source: World Bank/UNICEF

Figure 5.2 illustrates the extent of rural and urban poverty in Central Asia fifteen years after independence. The countries all suffer from serious poverty problems. After the collapse of the USSR the CARs descended into a deep economic crisis. A measure of recovery was noted in 1995/96, although this was dramatically interrupted by the Russian crisis of 1998. The economy has recovered since 2000, but Kyrgyzstan and Tajikistan are still suffering from the lasting impact of the earlier economic shock (Linn, 2002).

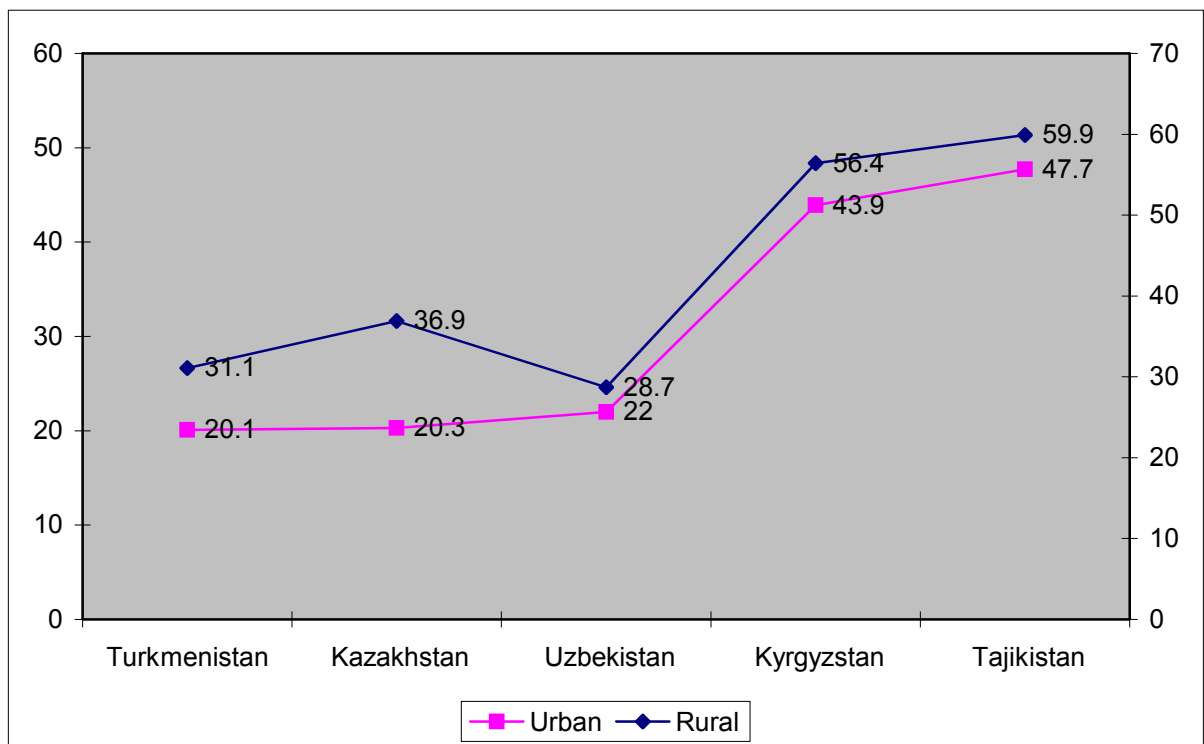
Rural poverty remains a major problem in certain of the CARs (see Figure 5.2). Many urban unemployed have moved to the rural areas looking for work and seeking new opportunities on state farms. Income disparities and poverty are more pronounced in certain subregions (Dowling & Wignaraja, 2006). At below 7 percent Uzbekistan has the lowest rural-urban poverty disparity. The other CARs display rural-urban poverty disparities ranging between 11 and 16 percent.

Although there is a lack of household level data for poverty analysis in Central Asia, nationally representative surveys of diet and nutritional status were undertaken in Central Asia two years after the dissolution of the USSR as part of the LSMS series conducted in collaboration with the World Bank. The



series conducted between 1993 and 1997 indicate that not all members of society share equally in the burden of poverty. Between 1995 and 1997 the DHS was conducted in the three republics under review in this study. These surveys revealed similar results to the LSMS in respect of diet and nutritional status, especially in children under the age of five. The incidence of poverty increased with children in large families, female-headed households, and those children with special needs facing desperate circumstances. This is partly due to reduced food entitlements and increasing unemployment among this group (Bauer et al., 1998). Household poverty has been exacerbated by the decline in social and infrastructure services that had previously cushioned the impact of relatively low incomes in the Soviet Union (Babu & Reidhead, 2000).

**Figure 5.2: Urban-Rural poverty indicators in Central Asia (2006)**



Source: Asian Development Bank (ADB) On-Line



Table 5.1 gives an overview of the trends in poverty rates per capita GNP<sup>11</sup> and per the Gini coefficient<sup>12</sup> in five Central Asian countries from the breakup of the Soviet Union to several years after independence. During this period the level of poverty increased by 15 percent from 36 percent to 51 percent. With the exception of Tajikistan the level of poverty in these countries was below 50 percent before independence, but increased to more than 70 percent in certain of the countries after independence. Similar estimates of the scope and trend of poverty, particularly for Kyrgyzstan, have been documented elsewhere (Green & Bauer et al., 1998; Pomfret, 1998; Howell, 1996). According to Kazakhstan government figures, between 2000 and 2002, the percentage of the population falling below the poverty line declined from 35 percent to 24 percent, as average monthly earnings increased by 32 percent. In 2004 it was estimated that 19 percent of the population fell below the poverty line (United Nations, 2005a).

**Table 5.1: Poverty and inequality in Central Asia pre and post-transition**

	Initial conditions			Recent data		
	Per capita GNP (1990)*	Gini coefficient (1989)	Poverty, per cent of population (1989)**	Per capita GNP (2003)*	Gini coefficient (2003)	Poverty, per cent of population (2003)***
Kazakhstan	\$2600	0.289	16 percent	\$1780	0.32	21 percent
Kyrgyzstan	\$1570	0.287	33 percent	\$340	0.28	70 percent
Tajikistan	\$1130	0.308	51 percent	\$210	0.33	74 percent
Turkmenistan	\$1690	0.307	35 percent	\$1120	--	44 percent
Uzbekistan	\$1340	0.304	44 percent	\$420	0.35	47 percent

\* GNP per capita (Atlas method) Current US Dollars

\*\* Individuals in households with gross per capita monthly income of less than 75 roubles

\*\*\* Percent of population with expenditures below \$ 2.15 (PPP) per day

Sources: Pomfret (1999), Anderson (2001), World Bank (2005a and 2005b)

It should be noted that, prior to the breakup of the Soviet Union, poverty rates in all the Central Asian republics were higher than in the rest of the Soviet

<sup>11</sup> **Gross National Product (GNP):** Total monetary value of goods and services produced in a year by the nationals, or residents, of a country. It includes income that nationals earn abroad, but does not include income earned within a country by foreigners.

<sup>12</sup> The Gini coefficient is a summary measure of inequality. 0.00 implies perfect equality where every observation has the same income; 1.00 perfect equality where the last observation has all the income while everyone else has zero income.

Union. Over the past six years World Bank (2005b) and ADB (2004 & 2006) estimates place the poverty incidence at between 28 percent and 30 percent in Kazakhstan, Turkmenistan and Uzbekistan. In Kyrgyzstan and Tajikistan estimates of poverty incidence were nearly twice as high, ranging between 48 percent and 57 percent. Currently, the poverty incidence for the five states that make up the Central Asia region averages 38 percent. In general, the rural regions show considerably more poverty and less social development than the urban areas, although certain urban areas have suffered considerably (Bauer et al., 1998).

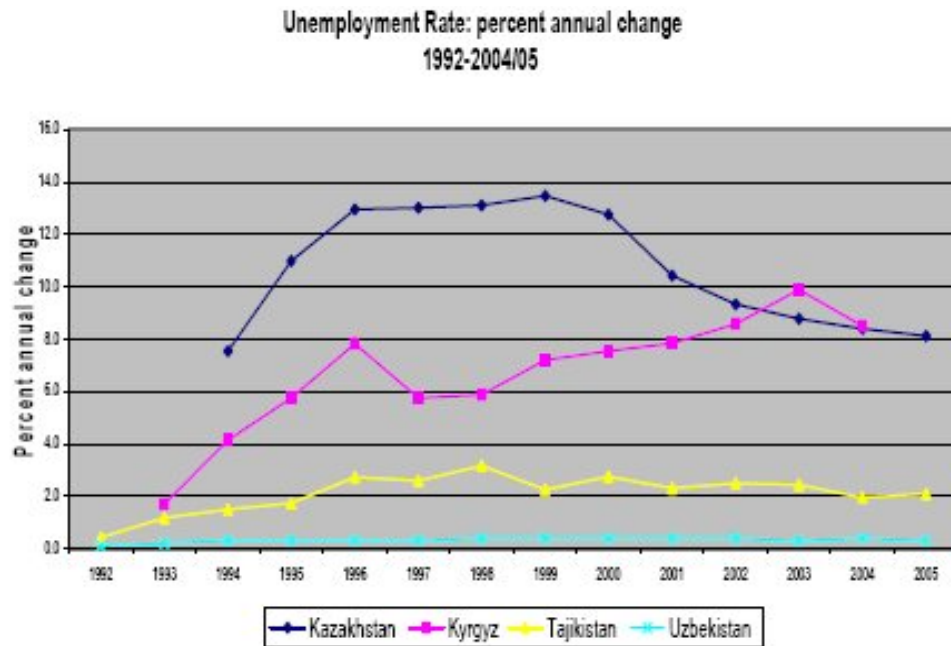
The primary reason for the increase in poverty in the Central Asian Republics following independence has been the deterioration of the macroeconomic environment, which is structural in nature, and has been characterised by decreases in national output and high inflation. The lack of subsidised inputs and guaranteed markets for their products has meant that many businesses have reduced their output or stopped production altogether. These businesses have had to lay off large numbers of workers, and this has resulted in high levels of unemployment among the poorer people. These increased levels of poverty in Central Asia have reduced living standards, which, in turn, have led to high levels of food insecurity and malnutrition.

### **5.3.2 Unemployment**

Falling output levels have been accompanied by a reduction in employment opportunities and the emergence of unemployment across the region. The labour market has performed differently for each country, as may be seen in Figures 5.3 and 5.4 below. A distinction may be drawn between the economy of Kazakhstan and the other economies. In 2004 the total labour force in Kazakhstan was estimated at 7.95 million, slightly more than half the total population, although substantial numbers of illegal Uzbek migrants have joined the workforce in recent years. About 36 percent of the labour force was self-employed. Even here there are differences as are shown by the employment and unemployment data, with Uzbekistan, in contrast to Kyrgyzstan and Tajikistan, showing low unemployment and stable employment growth (see Figure 5.3). In 2000 the labour force in Kyrgyzstan

was estimated at 2.7 million, slightly more than half the total population. About 55 percent of workers were employed in agriculture, 30 percent in services, and 15 percent in industry. In rural villages, long-term unemployment exceeds 70 percent, especially in respect of the younger generations (US Library of Congress On-Line, 2006, 2007a and c).

**Figure 5.3: Unemployment Rate: percent annual change 1992-2004/05**



Source: Asian Development Bank

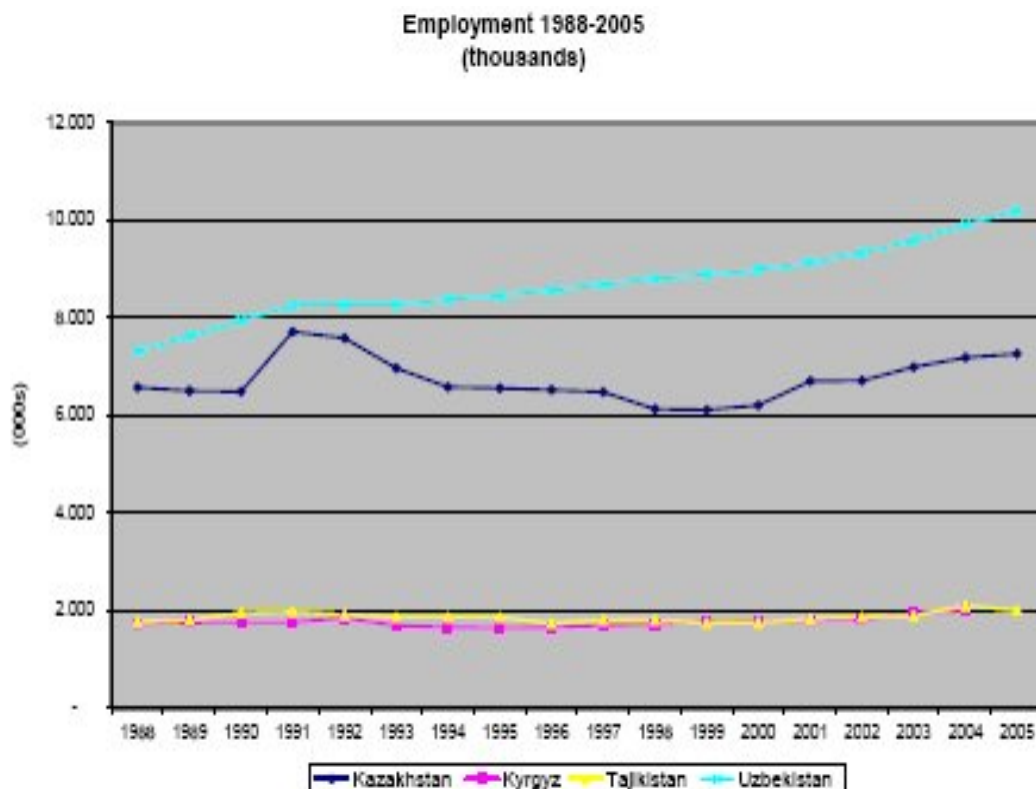
In the CAR's the unemployed are forced by law to register as work seekers in order to qualify for benefits. For many people there is little incentive to register as few are entitled to any benefits and few vacancies are available. Many employees go unpaid for several months. Rising unemployment has resulted in an increase in the number of children living in households of which one or more members are unemployed. In Kyrgyzstan in 1996 about 34 percent of children under the age of 10 lived in a household where no one was employed (Falkingham, 2000).

Under the Soviet regime participation rates for women in the labour force were much higher than in other industrialised countries. Since independence, however, a greater proportion of female employees have been laid off, and

more were 'on leave without pay' than their male counterparts (Evans-Klock & Samorodov, 1998; Tadjbakhsh, 1999).

According to the IMF (1998) real wages have declined even further than real output. There is also evidence that women's wages have fallen more than those of men. Lower real wage levels have obvious implications for child welfare in terms of the material resources available to families. Furthermore, literature reports that a greater proportion of the income earned and controlled by women is spent on children than the income earned by men. Thus, the greater decline in the relative value of women's wages may mean that the proportion of household resources from which children benefit may also be shrinking (Falkingham, 2000).

Figure 5.4: Employment 1988-2005 (thousands)



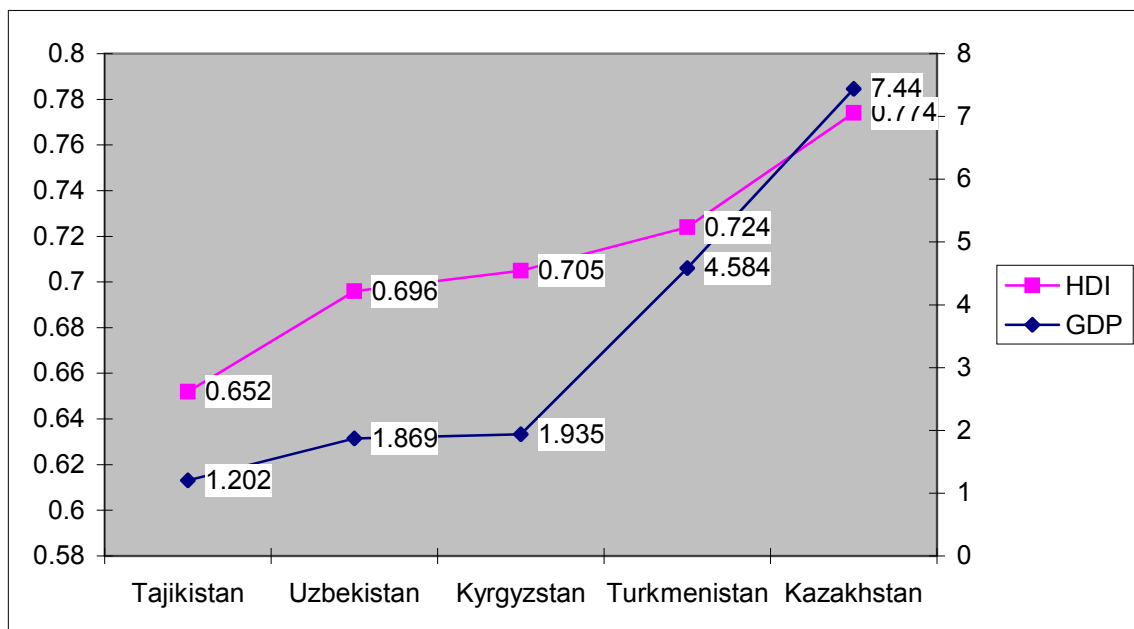
Source: Asian Development Bank 2007

The Soviet system of social welfare, which remained in place in Kazakhstan in the early 1990s, presumed a very high level of public services. The 1993 constitution maintained most of the postulations of the Soviet era, without

providing a clear mechanism for paying for what was supposed to be “guaranteed” workers’ benefits, such as free education, medical care, pensions and vacations. The constitution ratified in 1995 somewhat reduced the list and scale of guaranteed protections, but guaranteed minimum wage, pensions for the retired and the disabled, social benefits for orphans and for the elderly or infirm, legal assistance, housing, and what is termed “social defence against unemployment”. In practice, social benefits have proved difficult to provide because of financial issues, due in part to tax collection failures and the demographic imbalance between pension contributors and pension recipients (US Library of Congress On-Line, 2007c).

As may be seen in Table 5.1 above income inequality has been increasing since 1989. The Gini coefficients for per capita income in the CARs ranged from 0.29 in Kazakhstan and Kyrgyzstan to 0.31 in Tajikistan and Turkmenistan, with Uzbekistan occupying the middle position of 0.30. By 2003 the Gini coefficient had increased to 0.32 in Kazakhstan, 0.33 in Tajikistan and 0.35 in Uzbekistan, while it dropped by one point in Kyrgyzstan.

**Figure 5.5: HDI and GDP for Central Asian Republics 2005**



Source: Human Development Report 2006 (UNDP)



The social costs of this transition period are high. The widespread depression and lack of social assistance have meant an increase in the number of families and individuals living below the poverty line.<sup>13</sup> Moreover, social and economic distress is magnified in certain localities, and there are considerable disparities in the HDI and GDP in the five Central Asian Republics (Figure 5.5). Kazakhstan has the highest HDI and GDP levels, while Tajikistan shows the lowest levels.

The fall in GNP has been accompanied by the growing inability of governments throughout the region to mobilise resources. Government expenditure has fallen from approximately a third in Uzbekistan to a fifth in Kyrgyzstan. Despite their tremendous potential Central Asian economies remain among the poorest in the developing world. The region's average per capita gross national product (GNP)--\$726 in 2002--places it with the low-income developing economies. However the average masks a significant variation in GNP per capita within Central Asia (Kazakhstan at \$1510, Turkmenistan at \$1200, Uzbekistan at \$450, Kyrgyzstan at \$290, and Tajikistan at \$180). Figures for 2003 show a significant growth in the GNP in certain of the countries and a decline in others (Kazakhstan at \$1780, Turkmenistan at \$1120, Uzbekistan at \$420, Kyrgyzstan at \$340, and Tajikistan at \$210) (ADB On-Line, 2007c).

In 2000 Uzbekistan reformed its state funded pension system. This system covers all employed persons, while the government subsidises shortfalls and pays substantial amounts in pensions to special categories. Social support payments are often late, and high inflation decreases their value. In Kyrgyzstan workers are eligible for state funded pensions. The state, which controls almost all pension funds, has been chronically late in pension payments. As part of a long-term pension reform programme certain private

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<sup>13</sup> The **poverty threshold**, or **poverty line**, is the minimum level of income deemed necessary to achieve an adequate standard of living. Poverty lines vary in time and place, and each country uses lines which are appropriate to its level of development, societal norms and values. Poverty in this region is related more to the \$1 poverty line although the World Bank uses \$4.30 for these countries. Extreme poverty is measured at \$2.15 per person per day (PPP/day).

pension funds began to appear in 2003 (Kort, 2004; US Library of Congress On-Line, 2007).

### **5.3.3 Health**

For several decades until independence in 1991, children in the Central Asian Republics enjoyed a high degree of state public support, considerable social protection, and relatively good living conditions. There was no problem in accessing healthcare. Health care utilisation rates were high and, by international standards, indicators of population health were good (UNECE, 2002). However, since independence it has become increasingly difficult to maintain the traditional commitment to the needs of the children in the difficult economic climate in Central Asia, even though individual family care and parental affections may be strong (Bauer et al., 1998). During the Soviet era the CARs built up an extensive public healthcare system with one of the most favourable doctor-patient ratios in the world. It is widely assumed that, since the socialist system had been providing virtually free and universal access to healthcare services, the general health needs of the vast majority of the children were provided for; at least in comparison to other countries with the same level of income (Falkingham, 2000).

Immunisation, dental care and other primary healthcare services were also provided, usually within the education system. The economic and fiscal crises experienced in the region have meant that this impressive healthcare system has deteriorated rapidly since independence. In certain cases facilities have been closed because of lack of funds (Bauer et al., 1998; Falkingham, 2000; Buckley, 1998). In Russia there was increased concern over the possible deterioration of the health status of the children when the infant mortality rate increased by 40 percent between 1990 and 1994, and prevalence of stunting among children aged 2 years and younger varied between 8 and 15 percent (Goskomstat, 2001; Zohoori et al., 2002). These figures are not very significant in comparison to those in developing countries; however, they represent a clear indication that malnutrition is a serious problem in Russia. The most basic measure of the wellbeing of a population is life expectancy at birth. Life expectancy at birth is a hypothetical measure stating the number of



years a person could expect to live, on average, if they were exposed to the risk of dying at the prevailing age-specific mortality rates of that year throughout their entire life.

From Figure 3.12 (chapter 3 p54) it is clear that the health of the population in most of Central Asia deteriorated during the 1980-1990 period. At face value the graph presents good news. Although Infant Mortality rates in certain countries are high by international standards from the mid 1990s the trend has been downwards. However, recent data shows that the rates calculated from surveys are consistently higher than those from official data. There are several hypotheses for this discrepancy, including the definition of a live birth and a decline in the proportion of all births registered as a result of increased birth registration fees (UNECE, 2002).

The under-five mortality rate, measured as the number of deaths in a given period before the age of 5 per 1000 live births in the same period, is an important indicator of the development and wellbeing of children. Approximately 7 out of every 10 deaths among children under the age of five in developing countries may be attributed to largely preventable causes - acute respiratory infections, diarrhoea, measles, malaria, HIV/AIDS and the underlying causes of malnutrition (Black et al., 2003; Jones et al, 2003). Malnutrition contributes to about half of these deaths. Despite the noticeable decline in the number of children dying each year, as well as the progress since the 1950's in reducing child mortality, the numbers are still excessively high. A useful comparison is the more than 10 million children under five who die each year of malnutrition and the approximately 9 million annual average killed during the Second World War (Kent, 2000).

The under-five mortality rate is a closely observed public health indicator because it reflects the access of children and communities to basic health interventions such as vaccination, to medical treatment of infectious diseases, and to adequate nutrition. Between 1950 and 1980 a sharp decline in the under-five mortality rate was observed, while there was a steady decline between 1980 and 1999. Figure 3.13 (chapter 3, p55) shows the under-five

mortality rates of the CARs between 1990 and 2005. The trend from 2000 onwards has not been decisive albeit with a very slow decline. The under-five mortality rate fell from 148 per 1 000 live births in the 1980s to 66 per 1000 live births in the late 1990s (United Nations, 2006, 2007a and c). Children's deaths account for about half of all deaths worldwide.

The incidence of child diseases has increased substantially. Many childhood diseases now seen in Kazakhstan, Kyrgyzstan and Uzbekistan are caused directly by the poor environmental conditions inherited from the former Soviet Union. Total expenditure on health as a percentage of GDP in certain of the CARs is lower than in some African and Latin American countries (WHO 2007). Data from Central Asia indicates that environmental problems have a definite and negative impact on the health of children (Bauer et al., 1998).

Before 1991 Kazakhstan had an extensively developed public health system that delivered at least basic care free of charge even to the very remote communities. By 1993, however, Kazakhstan rated below average or lower among the former Soviet republics in terms of medical system, sanitation, medical industry, medical research and development, and pharmaceutical supply. Conditions at healthcare facilities varied widely – it was not uncommon, for example, for rural clinics to be without running water. While the 1995 constitution perpetuates the Soviet-era guarantee of free basic healthcare, financing has remained a consistent problem. Low wages and even non-payment of existing low wages is a common occurrence. This has led to the emigration of many doctors and nurses.

Many pharmaceutical plants have closed, thus causing a shortage of medicine and facilities, while supply connections from other Soviet republics or from East European trading partners have been terminated, with the result that certain types of drugs are virtually unobtainable. As a result the vaccination of infants and children, which had reached 93 percent in 1990, had decreased sharply by 1999 to 81 percent. Despite the fact that Kazakhstan has no system of medical insurance patients are often expected to pay for certain “free” services received at state medical facilities. The health system is in

crisis in rural regions such as the Aral Sea region, where health is most affected by pollution (Kort, 2004; US Library of Congress On-Line, 2006, 2007a and c)

Smoking is almost universal, especially among men, and alcoholism is common. Other forms of substance abuse, such as the use of hemp, morphia products and glue are common, especially among young people. Occupational hazards constitute another major health problem. Especially during the economic hardships of the early 1990s, out of reluctance to accelerate the general decline in production, public health authorities refrained from measures such as closing polluting factories or restricting the use of fertilisers, pesticides and irrigation water. As a result of the dangers posed by exposure to toxic smoke and fumes lead and phosphate plants limit workers to a period of ten years of employment. With little restriction on how they operate factories in Kazakhstan note high rates of morbidity, absenteeism, and permanent disability among their employees (US Library of Congress On-Line, 2006, 2007a and c).

While infant mortality and overall mortality rates increased in the 1990s the fertility rate decreased, contributing to the first drop in Kazakhstan since World War II. The infant mortality rate in Kazakhstan, although the lowest of the five Central Asian republics, was higher than that of any non-Central Asian republic. The general deterioration in physical environment and living standards, promoted outbreaks of several potentially epidemic diseases, respiratory infections and cardiovascular conditions. The incidence of tuberculosis has also grown substantially, as has the incidence of human immunodeficiency syndrome (HIV) and environment-linked cancers. The shortage of healthcare has put children at particular risk. Approximately 10 percent of newborns in 2000 were unhealthy, with most suffering from bronchio-pulmonary and cardiovascular problems. While statistics varied, a reasonable estimate was that life expectancy during the first half of the 1990's fell by two to four years (Kort, 2004)

In the post-Soviet era the quality of healthcare in Uzbekistan has also declined. Spending on healthcare decreased by nearly 50 percent between 1992 and 2001, and Russian emigration in that same decade deprived the health system of many practitioners. Basic medical supplies, such as disposable needles, anaesthetics, and antibiotics, are in very short supply. In the early 2000 policy has focused on improving primary healthcare facilities and cutting the cost of inpatient facilities. Among the most common diseases are those associated with polluted drinking water and various types of cancer (Kort, 2004; US Library of Congress On-Line, 2006, 2007 a & c).

The health system in Kyrgyzstan has suffered increasing shortages of health professionals and medicine. Kyrgyzstan imports nearly all its pharmaceuticals. The increasing role of private health services has supplemented the deteriorating state-supported system. A national primary healthcare system was adopted in 1996 in order to restructure the Soviet system that Kyrgyzstan had inherited. A mandatory medical insurance fund was established in 1997. Drug shortages in the late 1990s and early 2000's meant that the incidence of infectious diseases, especially tuberculosis, increased. The major causes of death are cardiovascular and respiratory conditions. Official estimates of the incidence of human immunodeficiency virus (HIV) have been very low. However, HIV is concentrated in narcotics-abusing and prison populations. With the abuse of narcotics increasing rapidly in the cities the incidence of HIV is expected to do the same (Kort, 2004; US Library of Congress On-Line, 2006, 2007a and c).

#### **5.3.4 Environment and agriculture**

The environment of Kazakhstan has been badly damaged by human activity. Most of the water in Kazakhstan is polluted by industrial effluents, pesticide and fertilizer residue, and, in certain places, by radioactivity. Increasing salinity and reduced habitat have killed the fish in the Aral Sea, hence destroying its once-active fishing industry. The depletion of this large body of water has increased temperature variations in the region, and this, in turn, has had an impact on agriculture. A much greater agricultural impact, however, has resulted from the salt- and pesticide-laden soil. Deposition of this heavily



saline soil on nearby fields effectively sterilizes them. Evidence suggests that salts, pesticides, and the residue of chemical fertilizers are also adversely affecting human life around the former Aral Sea - infant mortality in the area around the Aral Sea approaches 10 percent, compared with the 1991 national rate of 2.7 percent. The introduction of wide-scale dry land wheat farming has meant that wind erosion has also had an impact in the northern and central parts of the republic (Falkingham, 2000).

By the mid-1990s an estimated 60 percent of the pastureland of Kazakhstan was in various stages of desertification. Industrial pollution is a bigger concern in Kazakhstan's manufacturing cities, where aging factories pump huge quantities of unfiltered pollutants into the air and groundwater. The former capital, Almaty, is under special threat, in part because of the post-independence boom in private automobile ownership. The gravest environmental threat to Kazakhstan comes from radiation, especially in the Semey region of the northeast where the Soviet Union tested almost 500 nuclear weapons, 116 of them above ground. Such tests were often conducted without first evacuating the local population. Although nuclear testing was halted in 1990 radiation poisoning, birth defects, severe anaemia, and leukaemia are very common in the area (United Nations, 1996; Kort, 2004).

Extensive pollution and the degradation of large segments of the natural environment have increased the pressure on public health. Disability at birth, as well as ill health of one form or another, is common in certain areas. As recently as 1999 only 47 percent of homes had sewerage systems although vast improvements in sanitation facilities have been noted in the urban areas (Olcott, 1996; Kort, 2004).

Kyrgyzstan has avoided the serious environmental problems encountered by the other Central Asian countries. The main problems in Kyrgyzstan are the inefficient use and pollution of water resources, land degradation, and improper agricultural practices such as overgrazing which then leads to soil erosion. Mining is one of the few causes of environmental damage in



Kyrgyzstan. Gold and uranium mining operations have seeped toxic chemicals into soil and water in the eastern half of the country, and salinisation is a problem along the eastern stretches of the Naryn River. Overuse of the forest reserves has led to further soil erosion, while landslides also constitute environmental issues that negatively affect, for example, agriculture production (Kort, 2004; US Library of Congress On-Line, 2006, 2007a and c).

Water is in critically short supply in Uzbekistan. There is water in the mountainous eastern periphery of the country, but other areas face a serious water crisis. About 90 percent of Uzbekistan's water is used to irrigate crops, mainly cotton and rice both of which need large quantities of water to flourish. The quality of drinking water is also a major problem, especially in the western province of Karakalpakstan, where water is not properly distributed and sources are exposed to various types of surface and underground contamination. Inadequate sewage disposal exacerbates Uzbekistan's water pollution problem – only 40 percent of the population is served by sewerage systems. Soil contamination is highest in areas that have been subjected to annual overdoses of fertilizers and pesticides. Furthermore, several hectares of pastureland are lost to salt and dust annually (Bauer et al, 1998; Kort 2004).

In some areas near the Aral Sea environmental factors have contributed to micro-nutritional deficiencies such as iron deficiency, which is prevalent especially among pregnant women, who then give birth to anaemic children, and face difficulties in breastfeeding, which in turn leads to child malnutrition (Bauer et al., 1998).

Agriculture is the single largest provider of employment in Central Asia, but between 1990 and 2004 its share of gross domestic product shrank from 35 to 7 percent. Few agricultural products have export value. Kazakhstan has good quality agricultural land, but the continental climate, exacerbated by soil-depleting agricultural practices, limits utilisation. Agriculture remains a vital part of the economy of Kyrgyzstan and a refuge for workers displaced from

industry. After a sharp reduction in the early 1990s, subsistence farming increased in the early 2000s. Grain production in the lower valleys and livestock grazing on upland pastures provide employment for the largest proportion of the agricultural workforce. About 55 percent of the total agricultural output comes from private household plots, 40 percent from private farms and 5 percent from state farms. The irrigation infrastructure is, however, in poor condition (Dowling & Wignaraja 2006).

The non-oil exporting countries in the CARs (Kyrgyzstan, Uzbekistan and Tajikistan) resorted to almost full-scale agriculture in the late 1990s in an effort to drive economic growth. The success of this effort has been attributed to agricultural reforms, high world cotton and wheat prices as well as generally favourable weather conditions. Almost immediately Kyrgyzstan implemented a wide range of agricultural reforms that emphasised collective farm privatisation. In contrast Uzbekistan undertook limited agricultural reform (Rumer, 2002; Rozelle & Swinnen 2004). Peasants were granted small plots of land to grow fruit and vegetables in an effort to improve food security. Farmers were allocated land conditional on using the land according to state dictates (Dowling & Wignaraja 2006).

Agriculture and industries supplied by agriculture contribute more than 40 percent of Uzbekistan's GDP. However, expansion of the sector has been hindered by state control of agricultural markets, equipment shortages, and the ban on private land ownership. Privately worked plots contribute an estimated 75 percent of non-wheat food output. Uzbekistan is the world's fourth largest producer and second largest exporter of cotton. Cotton accounts for approximately 45 percent of the country's exports. In recent years, Uzbekistan has switched some farmland from cotton to grains, especially wheat, in an effort to reduce imports. Most of Uzbekistan's natural fish come from reservoirs and lakes. The management of rivers primarily for irrigation reduces the natural fish yield (Babu & Reidhead, 2000).

### **5.3.5 Food security**

Following independence the Central Asian republics faced a choice between self-sufficiency in food production and food security through a combination of own production and regional trade. Regional and international trade are not new concepts in the CARs but were controlled by Russia through the SOEs during Soviet rule (see Chapter 1, p9). Coupled with this was the lack of opportunities to develop marketing relationships with foreign buyers or investors under Soviet rule as well as during the early transition period (Babu & Reidhead, 2000; Dowling & Wignaraja, 2006).

The region was not prepared for the huge economic adjustments it was forced to make – tight credit policies, reductions in subsidies, increase in real interest rates, general disorganisation within the economy, development of new business habits among both producers and consumers, major adjustments in the labour market, and the dissolution of governing trade among Soviet bloc members (Svejnar, 2002; Campos & Coricelli, 2002; Djankov & Murrell, 2002). Regional trade arrangements fell out because the countries were unable to benefit from comparative advantage through the regional trade arrangements – there was a drastic fall in government revenue. Each country decided to produce only the amount of grain needed by its population. For countries that were previously net importers of grain this meant increased domestic grain production accompanied by increased market prices and farming of marginal lands. For countries that were previously net exporters of grain this meant reductions in grain production and net decreases in prices and national export revenues. Both categories of countries have suffered in terms of security with the former category hurting the consumers and the latter the farmers and national accounts (Babu & Reidhead, 2000).

There is limited information of food security at household level in Central Asia due to the limited number of household surveys in the region. The meagre data available suggest a decline in household food security following the dissolution of the FSU, especially in Kazakhstan, Uzbekistan and Tajikistan (see Figure 5.6 below). For many poor families declining real incomes result in decreased levels of total caloric consumption.





The diet and lifestyle of many citizens, especially in the cities, contribute further to poor health. The average diet is high in meat and salt and low in vegetables and fruit. The hyperinflation of 1992-1993 cut deeply into family budgets, limiting both the variety and quantity of food consumed by most ordinary people (Pomfret, 1999).

The decreasing levels of food consumption in the republics were accompanied by changes in diet composition. Information on food consumption in Kazakhstan reveals that the consumption of protein, fat, vegetables and fruit has decreased radically since 1990 (Pomfret, 1995; Bauer et al., 1998). Expenditure on non-food items is lower than that on food, although meat and dairy product consumption has fallen drastically in recent years, especially in poor households with children. The decline in average food consumption, combined with the sharp increase in income inequality and the deterioration of the relative position of households with dependent children has led to malnutrition, especially among children in poor households (Bauer et al., 1998). No data is available on food consumption levels in the other CARs.

Table 5.2 shows the consumption of basic foodstuffs in Kazakhstan between 1985 and 1994. In the five years leading up to independence total food consumption increased by almost five percent. However, consumption decreased over the next several years. Between 1990 and 1994 total per capita consumption fell by more than 20 percent.

**Table 5.2: Per capita food consumption in Kazakhstan 1985-1994 (kg/year)**

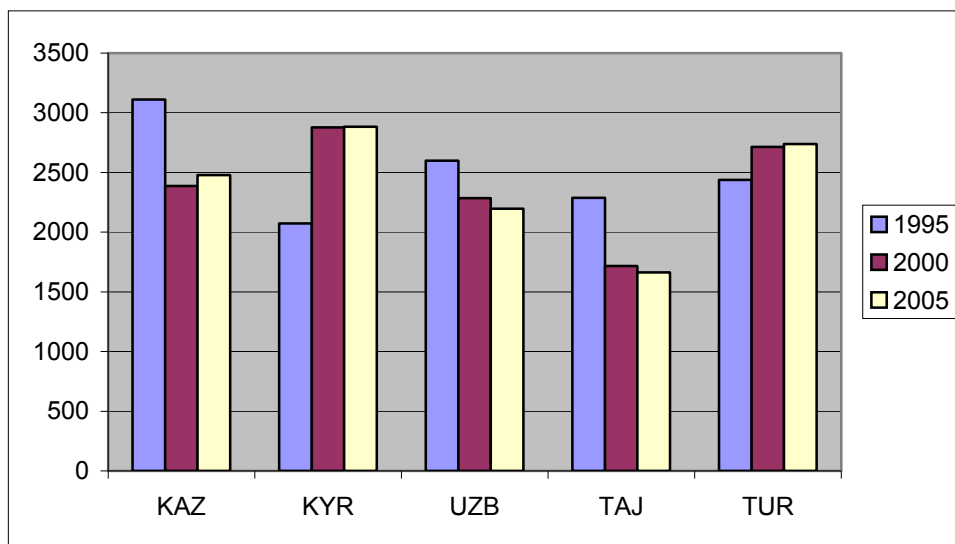
<b>Food products</b>	<b>1985</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1994</b>
Meat and meat products	58.0	70.0	65.0	57.0	46.0
Dairy products	260.0	305.0	280.0	270.0	263.0
Eggs (number)	217.0	222.0	198.0	179.0	162.0
Fish and fish products	10.9	10.1	7.0	3.6	5.4
Sugar	37.1	37.4	26.2	24.0	19.5
Vegetable oil	9.8	11.0	9.0	6.0	7.2
Potatoes	89.0	82.0	73.0	75.0	66.0
Vegetables	90.0	76.0	66.0	62.0	55.0
Fruits and berries	22.0	28.0	13.0	11.0	13.0
Bread, macaroni, cereals and beans	146.0	142.0	146.0	160.0	140.0
Total	939.8	983.5	883.2	847.6	777.1

**Source: Falkingham 2000.**

National and regional level data also clearly indicate the high level of food insecurity in Central Asia (not shown here). As discussed earlier the CARs which used to import some of its supplies from the other Soviet provinces have had to expand their domestic production. Land use has also suffered in the process because farms had to be expanded in order to provide larger tracts of arable land (Babu & Reidhead, 2000).

Evidence of nutrition security may be found in the data on child malnutrition in the CARs. Chapter seven of this thesis analyses the child malnutrition levels in the CARs in greater detail. In a 1996 survey conducted in Tajikistan several districts revealed stunting rates in excess of 50 percent. These figures are comparable to those for some African countries (Popkin & Martinchik, 1999). According to Babu and Reidhead (2000) the food insecurity and nutritional challenges facing the countries of Central Asia may be attributed mainly to unfinished policy reforms and changes in the institutional structures of the countries.

**Figure 5.6: Per capita daily calorie consumption Central Asia 1995-2005**



**Source: UNDP 2006**

Howell (1996) found that in Kyrgyzstan households had resorted to restricting their consumption of food and luxury items. Substitution of higher grade foods with lower grade foods has become standard, leading to a less varied diet.

Households sell their livestock and household items such as television sets in order to buy food and other essential items. The sale of cows, for instance, means there will not be enough milk for the growing children in the household, and this has an adverse effect on the nutritional status of children. The danger of depleting the productive assets is that this practice undermines the long-term capacity of households to extricate themselves from poverty (Howell, 1996).

Overall, after a decade of independence, agriculture and services remain the most important sectors of the economy in Kyrgyzstan, while industry remains concentrated in specific regions. As industrial enterprises have failed workers have moved from industry to agriculture. As much as 50 percent of the gross GDP is contributed by the grey economy. The GDP has been increasing by a steady 6 percent since 2003. In 2004 the contributions of the services and industrial sectors to GDP decreased, while that of agriculture increased. In 2004 per capita GDP was US\$404 (US Library of Congress On-Line, 2006, 2007a and c).

### **5.3.6 Natural resources**

In Kyrgyzstan, the state agency Kyrgyzaltyn owns all mines, many of which are operated as joint ventures with foreign companies. Although between 1992 and 2003 coal output dropped from about 2.4 million tons to 411 000 tons, nevertheless the government plans to increase utilisation of Kyrgyzstan's considerable remaining deposits in order to reduce dependency on foreign energy resources. The domestic output of oil and natural gas does not meet national needs (Kort, 2004; US Library of Congress On-Line, 2006, 207a and c).

In the post-Soviet era industries in Kyrgyzstan suffered sharp reductions in productivity because the supply of raw materials and fuels was disrupted, and Soviet markets had disappeared. The sector has not yet recovered appreciably. If gold production is excluded, industry contributed 13 percent only of the gross GDP in 2004. Government support is moving away from the machine industries, which were a major contributor to the Soviet economy,

toward clothing and textiles; food processing accounts for 10 to 15 percent of industrial production. Kyrgyzstan is very dependent on foreign sources of energy due to its limited deposits of fossil fuels and low investment in extraction industries. Most natural gas imports come from Uzbekistan. Per capita energy consumption is high considering average income, and the government has no comprehensive plan to reduce the demand. As a result of its rich source of hydroelectric power, through its fast-flowing rivers, Kyrgyzstan supplies electricity to Kazakhstan and Uzbekistan in return for fossil fuels. However, antiquated, poor management make Kyrgyzstan more dependent on foreign energy when water levels are low (Kort, 2004; US Library of Congress On-Line, 2006, 2007a and c).

Substantial post-Soviet growth in the services is mainly attributable to the appearance of small private enterprises. Although Kyrgyzstan's mountains and lakes are an attractive tourist destination, the tourism industry has grown very slowly because it has received little investment. Land transportation is a critical element of national unity because the regions of Kyrgyzstan (particularly north and south) are separated by natural barriers. The upgrading of road linkages with China is underway and is expected to be completed by 2008. The limitations of Kyrgyzstan's pipeline system are a major impediment to fuel distribution. The telecommunications infrastructure does not meet the needs of the vast majority of people. In 2002 there were 7.7 telephone lines per 100 inhabitants. However the telecommunications infrastructure is currently being upgraded (US Library of Congress On-Line, 2007).

Although the economy in Uzbekistan declined by about 18 percent between 1991 and 1995 it nevertheless suffered less economic shock from the dissolution of the Soviet Union than did most other former Soviet Republics. This may be attributed to the fact that Uzbekistan large amounts of cotton and gold, which are commodities of value in world markets, and because the government stressed the development of import-replacement industries in the post-Soviet era. In the 1990s oil and gas production increased significantly, providing limited exports of natural gas and eliminating the Soviet-era need to import oil. In the same period the expansion of grain cultivation reduced food

imports. Although cotton remains the most valuable agricultural product cotton output has declined since the mid-1990s.

Uzbekistan's economy has retained many elements of Soviet economic planning. Economic policy remains under state control, the government has strictly limited foreign direct investment, and little privatisation has occurred aside from small enterprises (Olcott, 1996; Kort, 2004). In the early 2000s agriculture remained the most important economic sector, but the contribution of industry was increasing. Informal economic activity accounts for between one-third and one-half of output. The GDP of Uzbekistan has been increasing steadily since 2002. In 2004 it was estimated at US\$9.2 billion. In both the Soviet and the post-Soviet eras minerals and mining have been vital to the economy. Uzbekistan's natural gas reserves satisfy all domestic needs and are an important export product, while oil reserves are nearly sufficient for domestic needs.

In the early 2000s, all of Uzbekistan's large industrial enterprises remained state-owned, and many unproductive Soviet-era plants remained in operation. During the 1990s Uzbekistan became self-sufficient as regards fuels, although the fuel industries have remained inefficient and wasteful. Owing to the smuggling of oil into neighbouring countries, oil production has been on the decline since 2000. In the post-Soviet era Uzbekistan has increased its production of natural gas by an estimated 40-50 percent. Uzbekistan is also self-sufficient in electrical power. However, because of the poor state of the infrastructure, experts estimate that, in the near future, Uzbekistan will no longer produce a net surplus of electrical power (US Library of Congress On-Line, 2006, 2007a and c).

Uzbekistan has desirable tourist destinations in the cities of the ancient Silk Road, and the travel infrastructure is adequate. However, because of low investment and poor maintenance, Uzbekistan's overland transportation infrastructure has declined significantly in the post-Soviet era. Air transport is the only branch that has received substantial government investment. In the early 2000's Uzbekistan's telephone system was in a poor condition, however,

a government programme has made substantial progress in modernising the system. In 2005 Uzbekistan adopted a new telecommunications and information transfer programme to accelerate development through 2010 (US Library of Congress On-Line, 2006, 2007a and c).

Four percent only of Kyrgyzstan is classified as forested, all of which is state-owned and none classified as available for wood supply. The main commercial product of the forests is walnut. Kyrgyzstan does not have a fishing industry of any significance. In 2002 aquaculture contributed 66 percent of the country's total output of 142 tons of fish (Kort, 2004; US Library of Congress On-Line, 2006, 2007a and c).

Of the 4.8 percent of Kazakhstan territory that is forested approximately 9 percent is nominally protected. Forestland is concentrated along the Chinese and Kyrgyz border and north of the Fergana Valley. A small amount of timber only for export is produced, but imports of timber far outnumber exports. The desiccation of the Aral Sea ruined the prosperous fishing and fish-processing industry. In the Caspian Sea pollution, poaching and overfishing has drastically depleted the fish. Kazakhstan has rich deposits of a range of sought after minerals including gold, iron ore, copper and uranium (US Library of Congress On-Line, 2006).

Kazakhstan's economy was closely linked to that of Russia in the centrally planned system of the Soviet Union, and hence the break-up of the union in 1991 caused a severe economic downturn in the years that followed. As elsewhere living standards deteriorated, with both industry and agriculture experiencing hard times. During In the 1990s the contribution of industry to the gross domestic product (GDP) fell from 31 to 21 percent, and GDP fell by 36 percent between 1990 and 1995. Since 2000 the GDP has increased every year. By the end of 1995 Kazakhstan's economy was less than half the size it had been in 1991. In 2004 per capita GDP was US\$2650. By 2002 new oil extraction operations restored the GDP share of industry to about 30 percent, and overall economic indicators rose substantially. The economy has remained poorly diversified.



Since the early 2000s, oil has accounted for more than half of Kazakhstan's industrial output, and many other industries are dependent on the oil industry. In the post-Soviet era the labour intensive agricultural sector became less productive. However machine building, metal processing and the manufacture of construction materials have grown (Bauer et al., 1998; Falkingham, 2000; Kort, 2004; US Library of Congress On-Line, 2006).

From 1990 to 1995, the production of Kazakhstan's industrial sector fell by 52 percent compared with the last years of the Soviet era. Local industries suffered when demand from Russia and other parts of the Soviet Union collapsed. The defence industry, which had made a significant contribution to the Soviet system, virtually disappeared. Despite its fossil fuel riches Kazakhstan is a net importer of electricity and gas, mainly from Russia and Uzbekistan respectively. A major cause of the energy imbalance is an extremely high ratio of energy consumption to GDP output. The inefficient domestic delivery system means that there are periodic power cuts due to late payments. In the first half of 2005, as production continued to increase, Kazakhstan became a net exporter of natural gas for the first time (US Library of Congress On-Line, 2006, 2007a and c).

Uzbekistan has deposits of natural gas, coal, gold, uranium, copper, silver, and a number of other valuable nonferrous metals such as lead, zinc, tungsten, and lithium. It is also the world's eighth-largest producer of gold (Kort, 2004; US Library of Congress On-Line, 2007 c).

Kazakhstan's manufactured goods have not been competitive on Western markets. The transportation infrastructure does not meet the needs of a vast country of which the per capita volume of road and railroad shipping is one of the highest in the world, and whose climatic extremes put particular stress on the transportation infrastructure. Although Kazakhstan has the best telephone system in Central Asia the telecommunications infrastructure is nevertheless inadequate to meet contemporary needs because the system rates poorly by world standards (US Library of Congress On-Line, 2006).

#### **5.4 INDIVIDUAL CHANGES**

In this model, as earlier introduced, the child is the individual whose health outcomes are negatively affected by the sociopolitical and socio-environmental changes as a result of the forceful acceptance of these changes by their parents under the government. This forceful acceptance, and promotion and integration of these changes are what James et al. (2003) term “violent messages” that foster oppression. These changes, as we have seen in discussions elsewhere in this thesis, were systematically repeated and directed at certain groups of people in the USSR. One such group was the children of Central Asia.

The transactional relationship between socio-political, socio-environmental and individual changes is strengthened by poverty, because poverty, as we have seen earlier, may function both as the context in which structural violence flourishes (as happened in the FSU) as well as a consequence of structural violence (Tainter, 2000). For example, state-wide health funding formulae may lead to a lack of access to health services for a particular group of people (structural violence: unequal resources, sociopolitical system), which may lead to chronic and widespread unemployment in the country concerned (consequences of structural violence).

The interaction between socio-political and socio-environmental factors which produces nutritional outcomes in populations, and children especially, has highlighted the important role that policies and programmes developed by countries play in the overall health outcomes of individuals. The changes that take place in individuals (children) will be explained further in subsequent chapters.

The patterns of the nutritional status of children are rooted in the structures of societies as these structures have changed over time. If one tries to understand and explain them one is able to identify the links between what is happening/has happened and the nature of the structure as it is illustrated institutionally. In other words, structure is/has determined much – it has



resulted in the “violence” to which young children have been exposed that in turn translates into their serious nutritional problems.

## **5.5 SUMMARY**

In this chapter the effects that social, political and economic transformations have of the health and welfare of people, especially children under five years of age were examined. Special attention was focused on the effects of socio-political, socio-environmental and individual changes on the people of Central Asia especially on children under five years and their parents.