WFP World Food Programme

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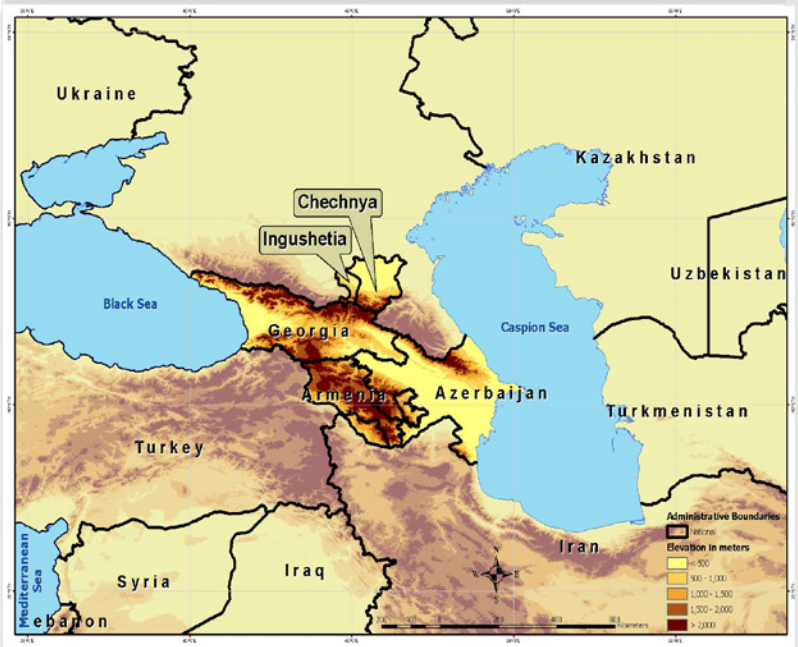
World Food Programme Regional Market Survey for the Caucasus Sub Region

Food Markets and Food Insecurty in Armenia, Azerbaijan, Chechnya, Georgia, Ingushetia



By . Ian Robinson B.Sc. PhD

March - April 2008

Regional Market Survey
Caucasus Sub-Region

Report of Mission

March – April 2008

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Ian Robinson
June 2008

Executive Summary

A field Mission to the North and South Caucasus Republics was undertaken on behalf of WFP Regional Office, Cairo, from March 14th to April 20th 2008, by a consultant from AA International Ltd, UK. Activities included a briefing in Cairo by WFP- Regional Bureau followed by contiguous field visits to the Russian Federation (Moscow, North Ossetia, Chechnya, and Ingushetia), Azerbaijan (Baku, Mingevecir, and Ganja), Georgia (Tbilisi, Kakeheti, Ozurgeti, and Zugidi), and Armenia (Yerevan, Lori, Shirak).

The purpose of the Mission was to conduct a Regional Market Survey following general Terms of Reference which were prioritised, after the briefing in Cairo, to a final checklist of concerns to be addressed The approach adopted included a) detailed discussions using a basic but flexible checklist with some 100 key informants comprising, market traders, wholesalers, millers, importers, farmers, farmers' association leaders, mayors, officials from Ministries of Finance, Agriculture, Social Affairs and Labour, Customs, Emergency Commissions, National Statistics Agencies, National Banks, Credit Agencies and NGOs, World Bank, USDA, UNDP, FAO and WFP staff; b) collection and review of reports collated by the WFP offices; c) downloading of official statistics from official websites, d) review of reports, press releases and summaries of international grain board information obtained by the Mission.

The findings of the Mission identify the Russian Federation as responsible for fiscal activities in the North Caucasus and confirm the strong influence of Russian Federation regarding food security in all South Caucasus Republics. Regarding the North, the two Republics reviewed are part of the economy of the Russian Federation. Given the information available, only partial GDPs were constructed by the Mission, however, the oil-based revival of Chechnya since the end of the war is apparent in both the figures and rebuilding of Grozny. Income generation, by contrast, in Ingushetia is far lower. Regarding the South Caucasus States, recent consistent double-digit GDP growth signals economic recovery in the sub-Region from the doldrums of uncertainty in the early-mid 1990s.

The anticipated closure of all WFP Country Offices and the associated run-down of acquisition and delivery of food aid to very low levels over the past years, means that cessation of WFP food aid from a 10 year low is unlikely to cause widespread hardship. The transfer of the much reduced caseloads to local welfare services is perhaps untimely, given global concerns regarding price hikes, but is also very timely insomuch as government attention is presently focussed on improving social support in each Republic. Revisions and extensions of social support services are in-hand and the transfer of responsibility of the much reduced WFP caseload is being conducted alongside such revisions. By the same token, the changed condition of the sub-Region up to and including March- April 2008, compared to the mid-1990s, does not, in the Mission's opinion, signal the need to restart food aid interventions. However, WFP continued involvement, possibly through nationally-based proxy organisations monitoring and analysing food security indicators, preserving and building capacity, encouraging and supporting the development of small-scale farming and reducing vulnerability to wheat price hikes at a national level, is highly recommended,

The Mission constructed a national vulnerability index *cVI*, linking wheat import requirement, GDP and population for each Republic. In the North Caucasus, Ingushetia appears in a far more vulnerable position than Chechnya due to Chechnya's significant oil wealth; however, fiscal support from the Russian Federation presently evens out the differences. In the South Caucasus, Georgia is by far the most vulnerable to wheat price increases (and is likely to remain in that position), followed by Azerbaijan then Armenia. The least vulnerable position currently occupied by Armenia is likely to change given Azerbaijan's programme to exploit vast reserves of oil with western company assistance and Armenia's dependency on inward investment and its war legacy of closed borders with resource- rich neighbours (Azerbaijan and Turkey). In any event, the Mission notes a universal absence of strategic stocks of wheat which places the food security of the three bread- staple, wheat- importing South Caucasus Republics (Ingushetia and Chechnya are covered by Russian Federation stocks), squarely in the hands of commercially- motivated, large-scale millers. Given the global wheat price hikes noted in the past year and the prognoses of grain futures markets world- wide, the Mission feels that the absence of strategic stocks in the South Caucasus should be addressed and that the WFP Regional Office has a role in this regard.

Food price increases from January 2007 to January 2008 ranging from 11% (Georgia) to 20% (Azerbaijan) have prompted all governments to increase significantly pensions, allowances, supplementary benefits and salaries in a series of events continuing into 2008. At the same

time, the approach to import duties and taxes differs within the Caucasus. All taxes have been removed on wheat / wheat products in Azerbaijan while Georgia retains 18% VAT on local and imported wheat / wheat products and Armenia presently imposes 12% import duty and 20% VAT on wheat / wheat products. In keeping with all Republics in the Russian Federation, no import or export tariffs exist between the member Republics; and Ingushetia and Chechnya impose the Federation's 10% VAT on wheat and wheat products.

Mission analyses show near perfect levels of market integration for all indicator commodities within Ingushetia and Chechnya, and for all commodities except diesel and sugar between the two North Caucasus Republics. Very high levels of market integration for wheat flour, vegetable oil and wage labour occur within and between the South Caucasus Republics. There are also strong positive correlation coefficients between the universally highest price-increasing indicator, wheat flour (range from 40%-80 %) and wage labour in each data set studied. As might be expected from a spectrum of visits comprising oil and gas-producing and fuel-importing republics, there is no apparent market relationship between Republics regarding diesel fuel.

Regarding market data generally, without WFP-collected information, food-security related market data are only available from official sources in each Republic in cleaned and summarised form. Upon WFP Country Office closure, all independent sources of regularly collected market data will disappear at a time when they are most needed.

Regarding agricultural data, Mission transects and farm visits suggest that production is underestimated, mostly because of the *hearsay* methods used by surveyors *i.e.* lack of objective assessment and measurement; lack of equipment and training and the *baggage* of analysts committed to agricultural yields of the Soviet era not the yields of the highly-productive, sustainable systems used by smallholders in the newly-allocated plots (PHPs) and backyards that presently make up the post- privatisation agricultural sector in each Republic.

The Mission suggests that WFP Regional Office's need for regular accurate reports on the market, production and social situations is beyond the scope of any single national WFP Assistant Representative attached to a suitable Ministry or UN agency. Such work requires the immediate establishment of a network of trained, equipped and motivated assessors to replace and develop the information gathering and processing role of the Country Offices. The Mission recognises that such a network already exists in the form of the staff and other assets of the Country Offices in the throes of disestablishment. As a means of preserving this capacity in the most sustainable fashion, local staff in the Country Offices should be invited to form independent NGOs and commissioned, by the WFP Regional Office, to work in the domain of food security to provide the information required; to build the capacity of governments regarding accurate information retrieval, analysis and interpretation particularly at field level; and to implement/ supervise food-security-linked interventions for other donors on contract, as a network of linked local NGOs with common goals, objectives and working practices.

Regarding other roles, the Mission suggests a) reducing national vulnerability to global wheat price hikes and export restrictions by promoting local production on unused arable land connected with the establishment of strategic reserves and b) stimulation of local economies through support to small farmers and improving access to local products in urban areas. The Mission connects these suggestions to two local purchasing initiatives:- LPO 1 contract growing of wheat by emerging medium-sized enterprises on unused ex- state farm arable land-connecting to the creation of strategic food stocks in each Republic (special attention Georgia and Armenia). LPO 2 contract growing of field crops, vegetables and fruits-connecting to the formation and support of a) smallholder producer pre-cooperatives (rural) and b) urban- based, vulnerable group, consumer pre-cooperatives; and c) brokering commercial activities between the two groups.

The Mission urges WFP Regional Office senior staff to join the UN Special Rapporteur on the Right to Food and the Head on UNEP in lobbying against food commodity speculation; and for the removal of VAT and import taxes on imported wheat/ wheat flour and vegetable oil in the countries where they still exist.

Glossary

AI	Artificial Insemination
cif	cost, insurance, freight
CIS	Commonwealth of Independent States
CPI	Consumer Price Index
EBRO	European Bank for Rehabilitation and Development
EU	European Union
FAO	Food and Agriculture Organisation
FFW	Food For Work
FINCA	Savings and Credit Group
fob	freight on board
GDP	Gross Domestic Product
GNI	Gross National Income
ICT	Information and Computer Technology
IDP	Internally Displaced Person
IMF	International Monetary Fund
NDVI	Normalised Difference Vegetation Index
NGO	Non-Governmental Organisation
PHP	Private Household Plots
SOCAR	State Oil Company
TA	Technical Assistance
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Dev.
USDA	US Development Administration
UXO	Unexploded Ordinance
WFP	World Food Programme

1.0 Introduction

1.1 Background

The interdependence of the 12 CIS states (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan) was such that the break-up of the Soviet Union in 1991, heralded a fiscal and social collapse of proportions not witnessed globally, outside of wartime, since the decade-long depression that followed the Wall Street Crash in 1929.

Viewed in hindsight, given the diametrically opposed economies of the two conglomerates, the effects on governance of the two events remain interestingly antipathetic in the sense that the earlier collapse on Wall Street resulted in the introduction of *"big"* government in the United States, curbing, to some extent the excesses of capitalism and introducing, for the first time in the USA, federally- funded social welfare programmes[1]. Whereas the collapse of the Soviet Union in 1991, substantially reduced the application of *"big"* government in 13 countries and opened the way for a feeding frenzy of oligarchs and monopolists that continues until today, at the same time eroding the federal infrastructure of social welfare that had guaranteed employment, health care, education, pensions and food security.

The initial effects of the two collapses were, however, surprisingly similar albeit varying in degrees of severity, with an immediate and protracted fall in GDP, a cessation in domestic investment, the shattering of industrial structures, rampant unemployment, civil unrest, internal displacement and migration. In the USA, GDP and domestic investment took 9 years to recover to 1928 levels.

In the aftermath of the break-up of the Soviet Union, the Caucasus Republics appear to have followed similar paths to the USA but manifested at a heightened level. Although somewhat out of phase with each other and at varying degrees of severity, three sequential conditions, namely economic decline, bottoming out, and recovery are discernable in each Republic from 1991 to 2007[2].

[1] Klein, M (2008). Rainbow's End: "The Crash of 1929" BBC Review
[2] Robson, M (2006) Estimating Russia's Impact on the Economic Performance of the Commonwealth of Independent States since 1991: The ESAU Working Paper 16, ODI, London.

In the Northern Caucasus Republics, war/ unrest and civil strife exacerbated the decline, lowered the bottoming-out and retarded recovery in Chechnya and Ingushetia until recently. Although both Republics are located within the thriving economy of the Russian Federation, the suppression of insurrections exacerbated inter-ethnic conflict for more than a decade, prohibiting any post break-up development until the last 2 or 3 years.

In the Southern Caucasian States, territorial disputes and wars have had similar effects in Azerbaijan, Georgia and Armenia but for shorter periods. However, the effect of the removal of the Soviet Union's fiscal mortar of trade, transport and transfers, which had not only held the disparate and antagonistic nation states together but had also provided the *causa* and *modus vivendi* for their populations, was just as devastating on the economy in the long term, and, consequently, the standard of living in the individual states, already divided by intra- and inter-statal oil/gas-wealth inequalities.

As a result, mass unemployment, hyperinflation and migrations of an estimated 20 % of the working populations occurred across the South Caucasus within 4 or 5 years[3] In addition, the massive earthquake in Armenia in 1988 not only traumatised the state but also placed a heavier than average dependency on Russia for internal investment, leaving the country even more exposed to the difficulties to follow.

These shocks notwithstanding, the three countries have achieved positive GDP growth since 1995, albeit based on a baseline GDP at a fraction of their previous levels,[4] reaching and sustaining double figures from year 2000 and entering both the UN middle income and medium human development index rankings.[5] The three countries are also placed in the lower middle-income group in the World Bank wealth rankings, with Georgia ranked higher than Azerbaijan and Azerbaijan ranked higher than Armenia. The Russian Federation is, by contrast, in the upper middle income group and rising. Such achievements by the South Caucasus have been made possible, for the most part, by oil price changes and by the re-invention of their relationships with the Russian Federation and western countries.

The Caucasian interventions of WFP that began in the mid 1990s and have continued until 2008 are indicative, *inter alia*, of the seriousness

[3]World Bank (2008): Wealth Rankings, Website May 2008.
[4] Georgia 26%; Armenia 46% ; Azerbaijan n/a
[5] UN HDIs, 2008

of the deterioration of the security and the parlous state of the economies of all five republics noted above at that time. By the same token, the simultaneous reductions in food aid, the cessation of operations and closure of all Caucasus WFP offices, actions in part strategic and in part hastened by funding shortfalls, do reflect the extent of the recovery achieved in the past 12 years.

In this regard, UNDP Gini indices (2007) for income inequality shown in Table 1 suggest similar or less inequality in the Russian Federation and South Caucasus countries than in Egypt, Western Europe (UK) or the USA[6], selected as comparator countries. The values suggest falling inequality over the past three years in Armenia, no real change in Azerbaijan and increased inequality in Georgia and the Russian Federation. That the comparator countries exhibit greater stability over the same period with no change in Egypt or the UK and a slight fall in value in the USA between 2004 and 2007 is connected to the comparative volatility of the sub-Region.

Food consumption Gini indices[7] are higher than in the UK and the USA, suggesting greater food consumption inequality in the Russian Federation, Armenia and Azerbaijan but lower inequality than in Egypt. The value for Georgia is lower than the other South Caucasian countries, which, given the greater income inequality values suggests a more realistic appreciation of use of home grown food than in Armenia, Azerbaijan, Russia or Egypt. In any event, all food consumption Gini indices are significantly lower than 2004 values noted by FAO for the Central Asian countries at 0.17 to 0.19.

It would, however, be disingenuous to suggest that all sectors of society in each country are recovering at the same pace. Consequently, concerns arise from the premise that in the face of new challenges of rising global prices, the progress achieved to date may be too fragile to be sustained, at least in some sectors of society, including the WFP target groups of the recent past.

[6] Higher value denotes higher levels of inequality
[7] Only available for 2004.

Table 1. Gini Indices for Income and Food Consumption for Mission countries compared to USA, UK and Egypt

	Egypt	UK	USA	Russ Fed	Armenia	Azerbaijan	Georgia
GI Income[1]	0.344	0.360	0.400	0.399	0.338	0.365	0.405
GI Income[2]	0.340	0.360	0.410	0.310	0.380	0.370	0.370
GI Food Consmptn[3]	0.160	0.120	0.130	0.160	0.150	0.140	0.130

[1]UNDP 2007; [2]FAOSTAT, 2004; [3]FAO STAT 2004.

In consideration of the strategic withdrawal of WFP from the sub-Region and in view of the more recent concerns noted above, a Regional Market Survey Mission was organised to analyse the development and dynamics of food markets throughout the Region. This report describes and presents the findings of the Caucasus component of the Mission implemented in March- April 2008.

1.2 Mission structure.

The Mission, undertaken from March 14th to April 20th 2008, included

- an initial four-day briefing in Cairo by WFP- Regional Office;
- contiguous field visits to
    - the Russian Federation (Moscow, North Ossetia, Chechnya, Ingushetia),
    - Azerbaijan (Baku, Mingavecir, Ganja),
    - Georgia (Tbilisi, Kakeheti, Ozurgeti, Zugidi),
    - Armenia (Yerevan, Lori, Shirak).

Although based in North Ossetia, the Mission only visited Chechnya and Ingushetia and these visits were only possible in under Phase 4 UN security conditions, therefore the North Caucasus section of the report connects to these two Republics only.

The methods used by the Consultant[8] were:
a) Detailed discussions using a basic but flexible checklist, with some 100 key informants comprising, variously according to availability, market traders, wholesalers, millers, importers, farmers, farmers' association leaders, mayors, officials from Ministries of Finance, Agriculture, Social Affairs and Labour, Customs, Emergency

[8] W. Ian Robinson, BSc, PhD; AA International Ltd UK

Commissions, National Statistics Agencies, National Banks, Credit Agencies and NGOs, World Bank, USDA, UNDP, FAO and WFP staff.
b) Collection and review of reports collated by the five WFP offices involved and obtained by the Consultant during the Mission interviews.
c) Downloading of official statistics, press releases and *ad hoc* reports from official websites.

At the initial briefing in Cairo, the original Terms of Reference (ToRs), included in Annex 1 were prioritised and priority concerns were sent by email to the Consultant in Moscow at the beginning of the field visits. These are reproduced below in Box 1 and reappear again as the basis for the Mission conclusions.

BOX 1- Prioritised Concerns. (March 2008)

Baseline data on food price increases

In-country food stocks & availability for emergencies

Government policy measures related to food price increases (export quotas/taxes – internal price controls, increase in subsidies etc.)

Government safety nets.

Organisations involved in collecting information on food prices/food security/social situation.

Market indicators to monitor.

Impact of price increases/production shortages/government policies on the vulnerable segments of the population.

Opportunities for local purchase for WFP.

The ToRs and priority concerns were discussed and agreed with each Country Director upon arrival. Where necessary, the visit programmes were adjusted to accommodate the priorities. A list of visits made is included in Annex 2.

Information obtained from key informant interviews was entered into a database, disaggregated by source and, loosely, by the relevant sub-sector of food security (production, availability or access). These data were then triangulated with the sets of secondary data collected or downloaded to provide the descriptions, findings and conclusions reported below.

2.0 The Caucasus

2.1 Supply Chains and Trade Links.

Named after the mountain chain that unites and separates them, the Caucasus Republics comprise;

- five North Caucasus Republics of Kabardino-Balkaria, North Ossetia, Ingushetia, Chechnya and Dagestan; and
- three South (Trans) Caucasus Republics of Azerbaijan, Georgia and Armenia and two UN designated conflict zones of Abkhazia and South Ossetia,

Regarding the cluster of republics in North Caucasus, all five are republics within the Russian Federation. All are characterised by more than a decade of varying degrees of violent conflict following 1991, the most extreme manifestations occurring in Chechnya comprising two wars with Russia which seriously affected the Republic and its neighbours until two years ago.

Regarding the three countries of the South Caucasus, each one has had its share of violent conflict since 1991 with on-going political-territorial and ethnic disputes remaining unresolved along cease –fire lines that separate Azerbaijan and Armenia, and between the central government and the secessionist territories of South Ossetia and Abkhazia in Georgia.

The two clusters are identified in the map in Figure 1 which shows their relative positions as both the southern land frontier of the Russian Federation (North Caucasus) and the land corridor between the Black Sea and the Caspian Sea. Easy access between the two clusters is precluded as the Greater Caucasus mountains climb to c.16, 000 ft. A road pass exists between North to South Ossetia but unimpeded access for all is not possible for reasons noted above. A second pass between Kazhegi (Georgia) and Vladikavkaz (N. Ossetia) has been closed by the Russian Federation since 2006 as part of the Russian- imposed export blockade on Georgia.

Therefore, the only operational land link between the two clusters is from Dagestan to Azerbaijan. In consequence of the above and the support given by global backers to one or other of the protagonists, the homogeneity of what could be one of the world's foremost trading hubs, is fragmented. Direct trade between neighbouring countries is either officially precluded or reduced and cross- connecting thoroughfares, that could be the feeders for zonal economic

expansion, have allegedly become gateways for the *protected* monopolies that exist in each country, smuggler routes for drugs, arms and human trafficking and havens for highway robbers. As trade is, however, the life-blood of the populations of the area, business goes on and significant supply chains exist, maintaining import and export flows, often in imaginative and circumventive ways.

Figures 2, 3 and 4 are maps showing movement of people, goods and fuel for the three South Caucasus countries utilising the channels summarised in Table 2.

Figure 2 presents a qualitative assessment of population movements and causes of movements since 1991. Such migrations have played a dramatically important role in the both the turmoil (IDPs and refugees) and the recovery (economic migrants and remittances) of the economy of all the Caucasian Republics.

Figure 3 presents the supply chains for wheat and wheat flour, showing the importance of the Russian Federation in this regard.

Figure 4 clearly shows the dominance of the Caspian Sea for oil and gas, and how Armenia's supply is affected by its closed borders.

It is the remittances resulting from such migrations, the value of which may really only be guessed at, combined with subsistence production from backyard gardens and field allotments formed during the privatisation of the state farms and collectives for hundreds of thousands of families in every Republic that were responsible for the survival of the household economies during the years of *1000+ % hyper-inflation* post 1991; and it is probably this same combination that provides buffers for the comparatively *minor* inflationary shocks presently being experienced by the majority of households.

Domestic production notwithstanding, all the Caucasus Republics are net importers of their main staple, wheat, either in the form of grain or wheat flour. In this regard, an understanding of the position of the two key North Caucasus Republics within the Russian Federation; and of all the South Caucasus countries within the new and expanding commercial hegemony of the Russian Federation, is vital and remains the most import consideration for food security of the population in the sub-Region.

Figure 1. Map of Caucasus Republics

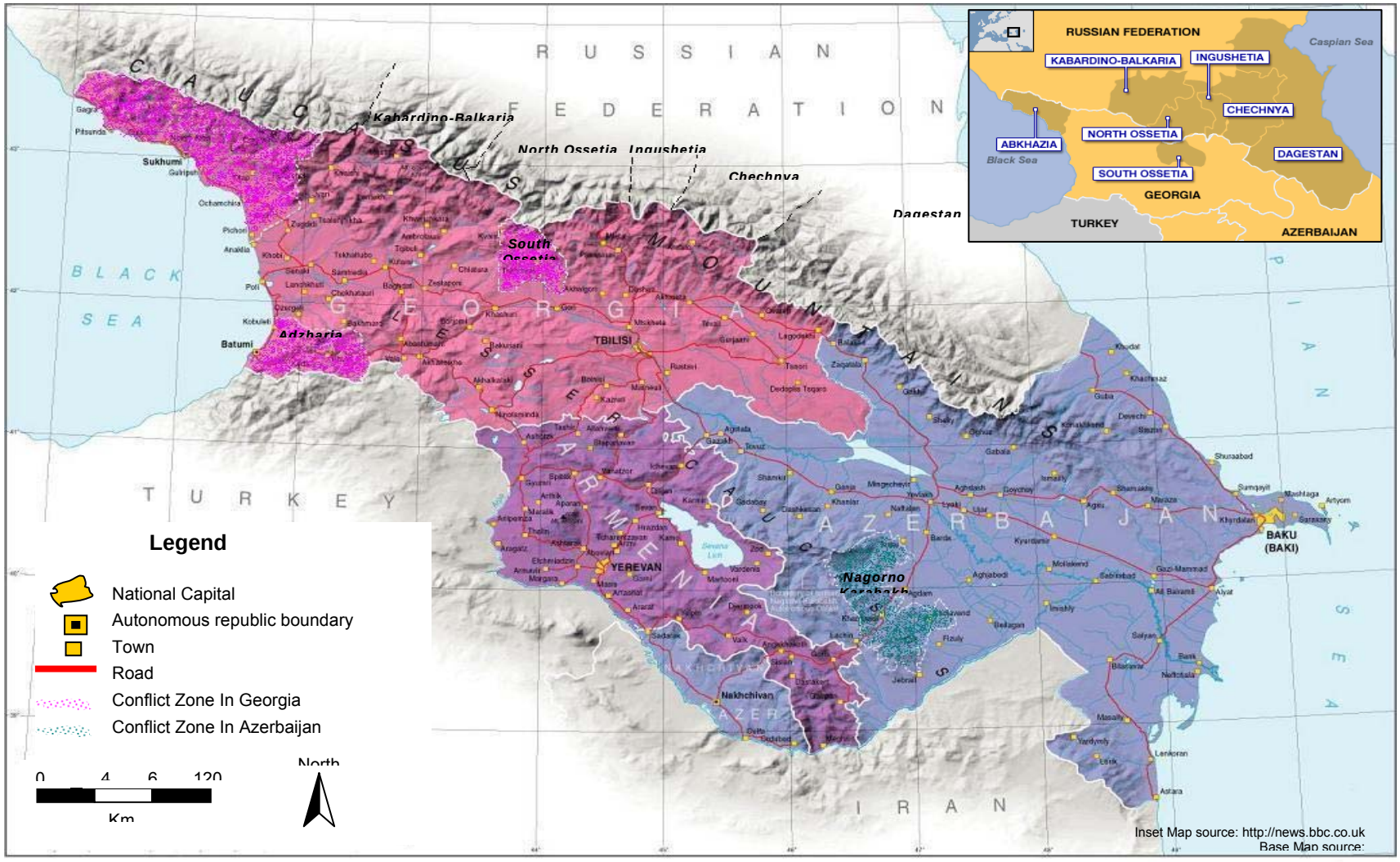


Figure 2. Communication routes: Russian Federation, South Caucasus and beyond

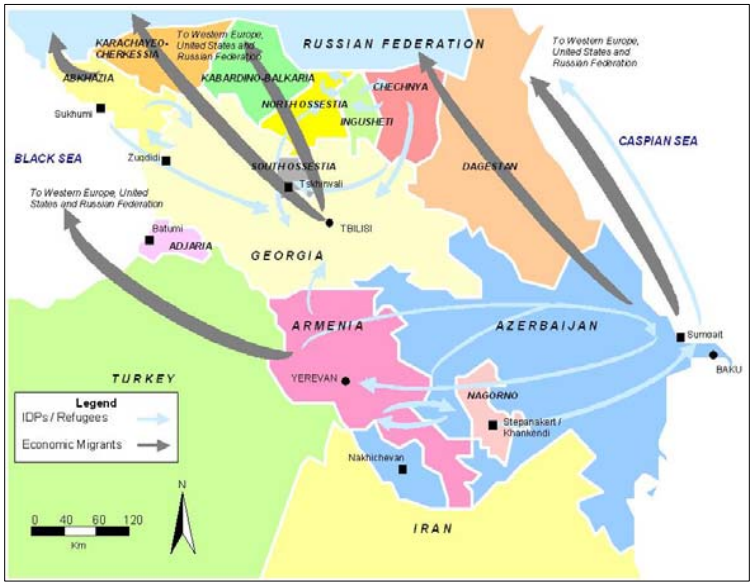
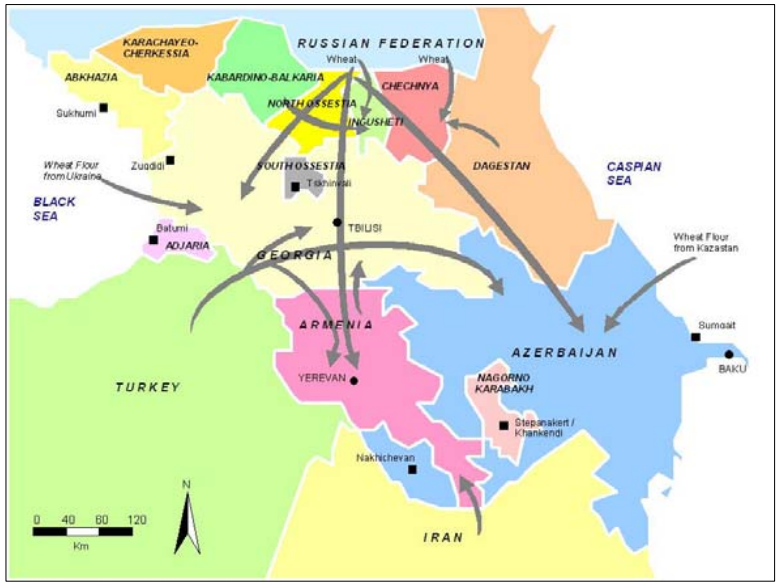


Figure 3. Map of Supply Chains for Wheat / Wheat Flour and other food Items



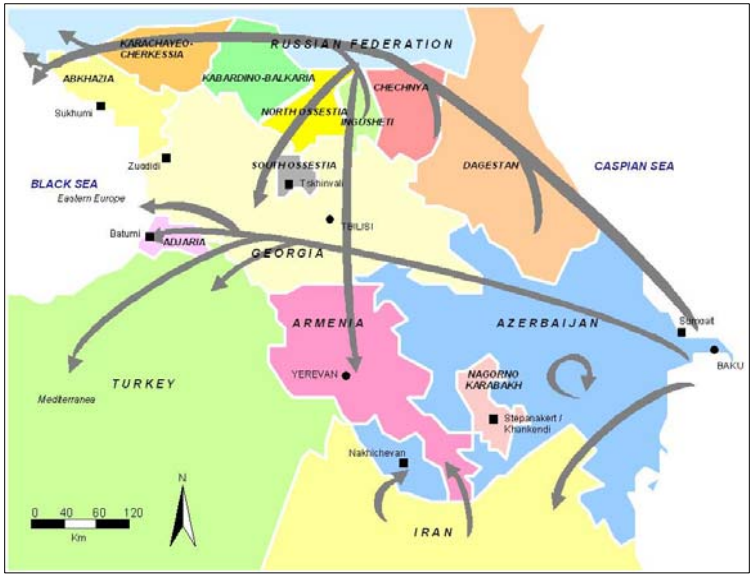


Figure 4. Map of movement of Fuel, Oil and Gas

Table 2. Communication routes: Russian Federation, South Caucasus and beyond.

Republic	To Russian Federation	To Azerbaijan	To Georgia	To Armenia	To Far East	To Far West	To Turkey
From Russian Federation	-	Road Rail Caspian Sea	Road, Rail, Black Sea	Road via Georgia	Rail, Caspian Sea and via Vldvstk	Road, Rail, Sea	No direct link. Trade via Georgia
From Azerbaijan	Road, Rail	-	Road, Rail	**CLOSED**	Caspian Sea	Black Sea, via Poti, Georgia	No direct route, road via Georgia
From Georgia	**No formal export; imports via Azer.**	Road, Rail	-	Road, Rail	Caspian Sea via Baku, Azerbaijan	Black Sea, Road via Turkey	Road, Rail, Sea.
From Armenia	Black Sea via Turkey	**CLOSED**	Road, Rail	-	Road via Iran	Black Sea via Georgia, Road via Turkey	**CLOSED**
From Far East	Rail, Caspian Sea via Vldvstk	Caspian Sea	Caspian Sea via Baku, Azerbaijan	Road via Iran	-	-	-
From Far West	Road, Rail, Various seas	Black Sea via Poti, Georgia	Black Sea via Poti, Road via Turkey	Black Sea via Georgia	-	-	-
From Turkey	No direct export. Trade via Georgia	No direct route, road via Georgia	Road, Rail	**CLOSED**	-	-	-

2.2 The Role of the Russian Federation

2.2.1 Outline Summary of Macro- Economic Indicators.

Over the past 7 years, Russia has experienced a surge in productivity generating higher profits, creating jobs, increasing wages and dividends and spreading wealth. The growth is attributable to;

- global energy price increases;

- major structural shifts in the economy with reallocation of labour and capital from agriculture and inefficient/ obsolete industrial manufacturing processes to more productive sectors epitomised by services and the ICT- related sectors;
- an increase in efficiency in the traditional industrial sectors revamped by such movements noted above.

Consequently, as shown in Table 3, GDP has grown in real terms on a regular basis as shown in the Table 3, culminating in 8.1% last year.

Table 3. Russian Federation Macro- Economic Indicators[9]

Indicator	2001	2002	2003	2004	2005	2006	2007
GDP growth, %	5.1	4.7	7.3	7.2	6.4	6.7	8.1
Industrial prodtn growth y-o-y, %	4.9	3.7	7.0	8.3	4.0	3.9	6.6
Fixed Capital Invstmt growth y-o-y. %	8.7	2.6	12.5	10.9	10.5	12.6	21.2
Inflation (CPI) % change	18.6	15.1	12.0	11.7	10.9	9.0	11.9
Average dollar monthly wage	112	139	179	237	301	395	500*
Reserves in billion US $	36.6	47.8	76.9	124.5	182.2	303.7	447.**

*9 months only; ** 10 months only

At the same time, inflation, as indicated by the % change in the consumer price index (CPI) has also increased in keeping with global trends explained by rising food and energy prices, falling unemployment and disposable income increasing by 12.9%[10] over the same period; and

[9]Rosstat. MinFin 2008; World Bank EMPU (2007)
[10] First 9 months 2007; Rosstat. The final month's figures (Oct posting an income of 553 US $

monetary factors such as higher capital inflows and appreciation of the Russian rouble against the US $ and other currencies.

A closer look at output growth by sector during the last 2 years is given in Table 4 and shows that the drivers for last year's GDP record performance have been the construction sector and retail trade sectors fuelled by domestic demand.

Table 4. Russian Federation Annual Output Growth (%) by Sector, 2007/9

Sector	2006	2007
Base Industries	6.1	8.6
Agriculture	2.8	2.2
Minerals	2.3	2.4
Manufacturing	4.2	10.0
Electricity, gas, water.	4.2	-2.1
Construction	15.7	23.5
Retail Trade	13.9	14.8
Transport	2.3	2.2

Regarding the sector most directly impacting on food security, following the collapse of the command economy, the output growth of agriculture was negative from 1990 to 1998, when it reached a nadir of -14%. Positive growth returned in 1999 as new agricultural enterprises took root accessing some 116 million ha. Low but positive growth has been recorded annually since that time[11]. Table 4 shows that growth rates in 2006 and 2007 were low at less than 3% but were still positive and has been positive since the organisational changes have taken root, for instance, the final quarter of 2007 output returns posted in January 2008 noted a 6% increase in food production over the similar period in 2006, and, as the next section illuminates, the progress is expected to continue.

Despite the progress noted above, inequality in income and food supply is more noticeable now than pre 1991. Conscious of increased hardship due to CPI increases the following action has been taken:

- Nov 2007- 10% import duty reduced from milk and milk products (from 15% to 5%).

[11] Yanbylkh, R. (2001) WB Paper; Farm Restructuring and Land Ownership:ESSD

- Nov 2007 *voluntary* price controls introduced on milk and cereal products (interpreted, where applied, on bottom end products).
- Increased pensions, allowances and civil servant salaries.
- Export tariffs on wheat introduced (see below for details).

2.2.2 Recent Changes in the Russian Agricultural Sector.

Dismissed variously as backward and inefficient, the Russian agricultural sector has been eclipsed in its contribution to the economic revival of the Russian Federation by windfalls in the energy sector and the post 2000 productivity surge noted above. Exhibiting negative growth, then stagnation during the initial period of transition when production fell with privatisation and the associated break-up of large scale farms, variable growth ranging from 7% to 2-3% has been posted in Rosstat[12] for the past 7 years.

The foregoing notwithstanding, the country has 222 million ha of arable land of which 138 million ha has been transferred under privatization procedures; arable land of which some 82 million ha are presently farmed, 85 % by "Trade Groups and Companies" (*agricultural enterprises*) and 15% by households (Private Household Plots –PHPs)[13]. That the agricultural enterprise lands are presently underutilised is well-documented elsewhere. Only 4% are now being irrigated due to the collapse of infrastructure, maintenance and technical support. The emerging companies and trade groups use mostly old tractors and out-of-date farm machinery, inherited from the collectives and state farms that are no longer as efficient as they once were. Most technical specialists lost their jobs and the private companies cannot/ will not pay for such technical support, therefore, the companies tend to follow low-input strategies more akin to resource mining than to sustainable practices.

Consequently, in 2000, it was estimated that 54% of national production came from c.12 million ha under PHPs. These points are readily acknowledged by the Ministry of Agriculture both in Mission discussions[14] and by the inclusion of the following elements in the Federal Ministry of Agriculture's new Strategic Plan, 2008-2011 to promote agricultural development;

[12] Russian National Statistics Agency website.
[13] Ag enterprises taxed/ production recorded low levels ensue: PHPs not taxed subsistence plus; production not recorded; therefore not and never been counted in rural income analysis.
[14] Meeting with MoA

- New and improved housing programme for young farmers/ specialists.
- Improved access to gas and drinking water in rural areas.
- Programmes to rehabilitate c 4 million ha of arable land.
- Flood/ water logging protection for 125 million ha.
- Windbreaks for 0.5 million ha.
- Increase fertiliser annual use from to 1.9 to 3 million tonnes.
- Develop elite seeds to increase yields/ha.
- Promote/ ease the importation of up-to- date tractors and agricultural machinery.
- Improve reindeer, cattle and sheep breeds.
- Promote the production of flax, oilseed rape and sugar beet.
- Funding release increases yearly from 9 to 14 million US $ per year as credit for large scale investors.
- Release 1.5 million US $ per year as credit for smallholders.

At the same time the plan includes;

- a revitalisation of the information retrieval system;
- establishing or refurbishing 317 regional extension centres;
- retraining/training 17,800 extension centre staff;
- training or retraining around 22,700 farm or enterprise managers.

In effect, the Strategic Plan, with a budget requirement as stands at 24 billion US $ recognises, through its content, the validity of the *backward and inefficient* criticism noted above[15] arising from the break-up of the Soviet Union and the associated dissolution of farming support systems including access to expert advice, crop and animal genetic development, adaptive research programmes and training.

As the Russian government presently enjoys fiscal surpluses, with a federal budget surplus in the order of 7% over GDP,[16] not only are the funds available for implementation of the existing plan, but amendments to the current annual budget increasing the investment by c. 20 billion US $ in priority infrastructure and social sectors are also in hand including, *inter alia,* capitalisation of the Russian Agricultural Bank and flood prevention works.[17]

Last year's Russian Federation cereal harvest from some 43[18] million ha is estimated to be 80 million tonnes of grain, of which 49 million tonnes are wheat and 16 million tonnes are barley. The Strategic Plan

[15] This self-criticism/ awareness was to be repeated many times during the Mission in all countries visited and prompted requests for practical training overseas and TA.
[16] First 9 months 2007
[17] World Bank RCO (Nov 2007)
[18] Compared to 78 million ha of cereals in 1990

anticipates 56 million tonnes of wheat reaching the market place each year by 2011, of which 15 million tonnes will be available for export.

Existing levels of production are based on conservative yield estimates of 1.5 tonnes per ha from the rainfed sub-sector and 4.0 tonnes per ha from the irrigated sub-sector, similar to achievements pre 1991, when 78 million ha of cereals were being regularly harvested. As an economic rationalisation of area sown has occurred since 1991, both yield estimates are most likely to have been exceeded in the recent past, and particularly in 2007, which was noted as a "good" year throughout the sub-Region. The current harvest estimate ranks the Russian Federation as the 4th largest cereal producer in the world[19] but the gulf between the first three and those that follow is huge with China, USA and India producing some 413, 390 and 232 million tonnes respectively and the Russian Federation (80) just ahead of France (70) with a cluster of countries coming next harvesting some 30 million tonnes each.

Given the current price of wheat in the region, gross margins provided to the Mission by the Russian Millers' Association[20] show a break-even price at 109-130 US$ per tonne. With farm-gate prices now 350 US$ per tonne, there is little likelihood that wheat production in the Russian Federation will do anything but increase in the next two years and is most likely to reach the Strategic Plan's annual targets this year 2007/8, as a further 0.4 million tonnes of fertiliser is noted to have been applied this year compared to 2004 (1.92 vs 1.47 million tonnes). The areas sown to other field crops, particularly those commodities cited in the Strategic Plan, are also expected to increase, culminating in an increased availability following the 2008 harvest for domestic use and export.

2.2.3 Effect on sub-Region cereal markets.

Cereal production *per se* does not present the whole picture with regard to potential impact on sub-Regional food security. Exportable quantities depend on the difference remaining after annual *domestic availability* (including cereals imported and cereals in store) is reduced by the *domestic requirement* (including seeds, animal feed, other industrial uses, losses in store). Assuming stable stocks, *i.e.* no draw-down and no wheat imports, the 2007/8 wheat balance in the Russian Federation identifying exportable grains may be summarised in million tonnes as:

[19] FAO Year Books.
[20] Gureivich,A (2008) Personal Communication. President, Russian Union of Flour Mills. Moscow.

1. Exportable wheat = Domestic production – (Food + Alcohol + Feed + Seeds + Losses)
2. 13 million tonnes = 49- (19 +1 + 9 + 7 + <1) [21]

Stocks in the Russian Federation remain within the bounds of commercial secrecy as they are now said to be held in the storage capacity of the 3500 flour mills, of which 400 large flour mills account for 70% of the milling and 3,100 smaller mills handle the rest. This would appear to be at least 2 million tonnes at any one time as millers carry a rolling 1.5 months wheat supply to meet their regular demands. This figure, provided by the Russian Union of Flour Mills does not include grains on-farm or in trading company stores so wheat in store, nationally, must be far higher; but is probably lower than the 10 million tonnes of wheat stocks claimed to be in the Central Region alone.[22]

If the balance calculation is repeated for the major wheat producing countries noted above, a new league table of importance emerges comprising, in the position of leading global cereal exporter, the USA (82 million tonnes) followed by France (32); Argentine (21); Canada (19); Australia (18); China (17) and the Russian Federation (13).[23] These 7 countries provide 69% of all internationally traded cereals.

Considering only the WFP- Region, the other major wheat exporters are Ukraine (7 million tonnes); Kazakhstan (5); Hungary (3.4); and Turkey (1.4), which clearly places the Russian Federation as the potential main source of supply of wheat in the sub-Region. In accordance with actions of many governments worldwide, three exporting countries in the group, Ukraine and the Russian Federation have taken earlier action to moderate the effect of the food component of CPI increases on their populations by reducing wheat exports. Ukraine closed the export of grain wheat but left open export wheat flour[24]; a similar action was taken at the end of April 2008 by Kazakhstan; and the Russian Federation took the following action:

- Nov 2007- 10% export tax levied on wheat grain exports.
- Feb 2007- 40% export tax levied on wheat grain exports until May 2008.
- Apr 2007- 40% export tax on wheat grain extended to July and is likely to remain in place until Oct 2008[25].

[21] Guerivich.A (2008) ibid
[22] Announced during Mission by President
[23] Rosstat 2007/8 figures for Russian wheat, all others exports FAO 2004 cereal data.
[24] Lifted for feed grains. HGCA Trade Bulletin April 24 2008.
[25] Gureivich A(2008) ibid

- No tariffs on export of wheat flour[26]

The tariffs/ restrictions are likely to be removed next harvest when prices are expected to fall. However, in the meantime, increasing tariffs on wheat grain exports but allowing an unimpeded volume to be exported does little more than increase government revenues as the export market price remains enormously attractive to grain traders with huge stocks, despite the increased tax.

On the other hand, restrictions on wheat supply or increases in *cif* cost challenges millers in the importing countries to meet commitments and to match the retail prices of the imported wheat flour[27], challenges which many smaller millers in the importing countries may not be able to manage, causing them to close.

Whereas the example given above is for wheat, similar conditions may be expected to pertain with other commodities with local processing dependencies on imported raw materials; especially where the local dependency is matched by an enormous functioning capacity to process the same raw material in the domain of the raw material exporter.

With regard to food security and markets in the sub-Region's South Caucasus States, policy changes in the approach of the Russian Federation to exports/ imports remain key issues and are connected to Russia's internal factors including, physically, if not tactically, events in North Caucasus and relations of all Republics with the West. The very poor relations between Georgia and Russia which see Russia preventing the import of Georgian goods, Georgia's erstwhile main customer; and allowing Russian wheat and flour exports to Georgia at usual third country tariffs while providing food-aid wheat and preferential CIS trade concessions to Azerbaijan and Armenia , are manifestations of that importance.

3. North Caucasus Republics Market Situation Assessments

3.1 Ingushetia.

3.1.1General

Located in the North Caucasus between North Ossetia and Chechnya, Ingushetia with a population of around 470, 000 people in some 83,000

[26] USDA, GAIN Report RS8013, Feb 2008
[27] Ukraine flour is exported but no export of wheat grain is allowed.

households has existed for the past 16 years in the context of an unresolved border dispute with North Ossetia over the Prigorodny district on the one hand and Chechnya's war zone on the other. The latter conflict, in particular, had a fundamental impact on the Republic with an immigration of 200,000 IDPs at its height in 1999 to be added to the 60,000 already displaced from N. Ossetia. The IDP population that was c. 260,000 has now, over a period of 8 years, been reduced to 13,000 core cases.[28]

Remaining within the Russian Federation in 1992, when the secession of Chechnya was attempted, the Republic of Ingushetia is essentially rural as the truly urban conglomerates of the past were established outside its current borders, that is to say the new capital city of Magas and the extensions of Nazran that provide today's urban settings are less than 15 years old. Therefore, unlike the neighbouring Republic, the connotations of urban and rural are not really meaningful with regard to livelihood traditions. UNDP estimates that 42.9% of the population are urban and 57.1% are rural, mask the fact that most families are *de facto* first generation rural with land rights and traditions of farming.

3.1.2 Macro –Economy

As well as key informant interviews, two major recent studies relating to food security in Ingushetia, Tango (2007)[29] and USAID (2006),[30] were made available to the Mission by the WFP office, Moscow. Both studies reach similar conclusions regarding the macro-economy of the Republic citing violence, destruction of the industrial base, rampant corruption and dislocation of a displaced population being the key determinants of an economy in tatters and failing social services. This view is strongly supported by the WFP-funded Tango (2007) food security and livelihoods survey results from 550 households, a sample which included 220 IDP families and 330 resident families, a number which, to the Mission, seems highly skewed towards the comparatively few IDPs remaining that are now only 2-3% of the population compared to 55% of the population 8 years ago (Danish Refugee Council, 2008).The demise of industry in Ingushetia mentioned in Tango (2007) is connected to textile factories. As USAID's comprehensive review of agriculture in North Caucasus makes no mention of growing cotton, reporting that the state farms and collectives previously produced grain and oilseeds, it seems that the erstwhile textile industry was dependent

[28] Mulsago M.(2008) Personal Communication, Danish Refugee Council, Nazran, Ingushetia.
[29] Tango, (2007) Food Security and Nutrition in the North Caucasus, WFP, Russia
[30] USAID (2006) Agricultural assessment in North Caucasus, Russian Federation

on raw material from other areas of the Soviet Union and closed along with other manufacturing plants with similar dependencies elsewhere in 1991.

Missing from both reports is any reference to the scale, scope or contribution to the economy of the Republic's oil industry. Managed by *Ingush Nefte Gazprom,* a joint stock company with 100% local shareholders, the current production is 105,000 tonnes per annum, raising an income of c.91 million US$ per year from high quality crude oil sold mostly to West Germany and Italy through a pipeline to the Black Sea port, Novorossiysk.[31] Recent reports from the President of the Republic[32] point to the drilling of 8 new wells with anticipated yields of 2 million tonnes each that will increase income substantially.

Other industrial activities link to three small scale food processing plants for milk, butter and cheese (5 tonnes a day), wheat flour (150 t/day) and a cannery (n/a) which are marketed locally; the remaining sources of income are remittances and social support contributions from the Russian Federation of which more will be explained later.

Unemployment is reported regularly to be in the order of 60 % but perhaps this may be better described as *non-employment* as the "unemployed" make significant contributions to the household food economies through what is most clearly a thriving subsistence and near subsistence agricultural sub-sector. Such work is ignored in the livelihoods analyses based on cash- income contributions and, therefore, cause rural standards of living to be underestimated.
Oil revenues not withstanding, 95% of the Republic's budget comes from the Russian Federation leaving 5% to be generated locally arising from taxes 1% and 4% from services.

3.1.3 Agricultural Sector.

The opening paragraphs identify Ingushetia as a Republic with an oil-producer, base- line partial GNI of 193 US $ per head, plus remittances (unknown) and social support contributions. Regarding GDP, after oil, agriculture is identified as the greatest contributor with USAID's 2006 assessment reporting that by 2005 the sector was producing 91% of agricultural produce registered in 1995; having improved each year from a nadir of 58.5% in 2001.

[31] Dept of Statistics, Min of Econ Dev, Magas
[32] Moscow News, 02/05/2008

The structure of agriculture supporting the Republic's production noted above bears further examination. The role of PHPs in the North Caucasus is reported by the World Bank to have the most influence on local production in the whole of the Russian Federation.[33] In particular, PHPs in Ingushetia are credited with 92.6% of the production comprising, potatoes, vegetables, fruits, meat, honey and maize. Given the recent urbanisation, all families irrespective of their present domicile, have to a greater or lesser extent such holdings, plus the tradition of the use of sustainable techniques that is maintained by the non-employed to produce a wide variety of food and cash crops[34]. By the same token, and in keeping with the subsistence plus concept of the PHPs, the amount appearing in the market place is low; product care from field to market is virtually absent and the myriad of sources means that there is no apparent coordinated approach to marketing[35].

Agricultural development is barely obvious. Until the last budget, the Government has taken few steps following privatisation. On the one hand, the creation of PHPs presents new opportunities for development, recognised by WFP and FAO who are mobilising groups in a series of very small scale pilot interventions including orchard rehabilitation, restocking, extending the growing season through use of plastic tunnels, honey processing, sugar beet planting and backyard chicken rearing. In many of these activities WFP has provided incentives through FFW which has encouraged the activities of small groups. On the other hand two schools of thought are apparent;

i) Farmers' Association's view, supported by findings of USAID 2006, look towards the supported re-emergence of large-scale agriculture but this time in the private sector. In this regard, projects supplying tractors, farm- machinery, irrigation equipment, fertilisers[36] , improved seeds, money in the form of grants and loans are anticipated.

ii) Government is looking to re-establish the old state farms to restart the former dairy, sheep, and industrial crop enterprises but in a modern setting, on the land that has not yet been privatised through similar aid-gifted projects but in the public sector.

Recent Republic budgets / plans reacting to the Federal Government policy and budget have included irrigation scheme rehabilitation, credit- for the first time including credit for small scale enterprises; and training

[33] Yanbykh, R. (2001) WB Ibid

[34] Head of Stats, Min of Econ Dev (2008) Personal Communication, Magas.

[35] One dairy; one honey processing plant; one cannery offer good starting points for new smallholder based projects.

[36] Banned – war risk.

and research into crop improvement. However, operational processes are not clear.

As no official statistics for agricultural areas were available, Table 5 summarises the data collected relating to the 2007 season, triangulated with other indicators in an attempt to reach a broad estimate of the possible domestic supply of cereals for the coming year, given similar conditions to 2007.

Table 5. Ingushetia Farming Profile 2008[37]

	Numbers	**Households Farming**	**Area/ Unit ha**	**Total Arable land ha**	**Main crops**	**Estimated cereal product t**
Arable area	Republic	-	100-110,000	110,000	-	Pre 1990 120,00 t
Pop 2008	470,000	-	-	-	-	
Households	78,000	c.86%[3]	0.15 [3] back yard gardens	10, 062	Pots; veg; maize (25%) fruit, oilseeds	6,000
State Farmland *proportional users unclear/ PHPs and state	42,000-hh and State Farms, Labourers paid in kind	min54% PHPs	>1	42,000	wheat 13000 ha, maize 18,000 ha sunflower alfalfa	19,000 36,000
Ag Ent	1200[1]	-	1.0 to 800 [2]	23,000	Wheat, maize. Oilseeds, alfalfa	21,000
Total				75,062 (68%)		82,000

1 All on plains (Nazranovsky; Algobeiksky; Sonjensky) none in mountains (Jerasky); agreed by Farmers' Association and Stats Dept, Magas.
2 One enterprise 800 ha; remainder 1-300 ha
3 Backyard 0.2ha; >1ha allotments UNDP 2008, Personal Communication,Vladikavkas.
*Tango 2007 suggest 54% (less than Chechnya) have allocations; which is the figure used in the table; NB. Min Econ Dev, Magas suggest 95%.

The production systems used are equally as poorly documented as the statistics, however, regarding the backyard farms:

[37] Summary of Mission findings and reviews.

- Mission sample transects driven during the movement of the Consultant from Vladikavkas to Nazran, Nazran to Magas and Nazran to Grozny confirm;
  - i) size; ii) full crop occupancy/ inter and relay cropping; iii) hand cultivation and iv) use of FYM.
  - Rich loamy soils, well established orchards.
  - Good home garden practices.
  - Range of crops included potatoes, vegetables, fruits, land dug for maize.

Regarding PHPs and agricultural enterprises:

- Documents and key informant interviews and Mission transects confirm,
  - Rainfed field crop system- no irrigation.
  - Well-cultivated loamy soils extending throughout the plain.
  - No arable land in mountain districts.
  - Tractors and equipment all 15 + years old.
  - Combine harvesters in poor condition/ inefficient/ expensive to hire.
  - Other than Prigorodny District, all fields occupied; 50% winter wheat and 50% ploughed and cultivated for spring crops (maize/ sunflower).
  - 90% use of farmer carry-over seeds.
  - 10% seeds imported from Stavropol and Serbia (maize).
  - No use of fertilisers or sprays.
  - No major infestations last year

Low yields of cereals, similar to those previously reported at 1.5 t per ha for wheat and 2.0 t per ha for maize have been used in the calculation noted in Table 5. These have little relationship to actual yields obtained in the well-managed PHPs and bear witness to the need for rapid assessment techniques to be introduced this year to assess the harvestable crops, particularly maize, wheat and potatoes, the three main staples, if realistic assessments of food security are required.

Detailed discussions with leaders of the Farmers' Association confirmed the production of maize was from 2 to c.8.0 t/ha last year and winter wheat ranged from 1.0 to 4.5 t per ha depending on location. Only the higher values for maize connect to irrigation for, in general, cereals are not irrigated; yields of the winter or spring wheat vary according to rainfall.

The 82,000 t of all cereals that the Mission suggests may be produced next harvest, compares favourably to the harvest of 40,000 t reported by FAO (1999) Special Alert, at the height of the conflict in Chechnya, when production was at its lowest ebb. The FAO figure did not include

an estimate for maize, which would have increased the domestic availability considerably. This is surprising as it is the main home-grown cereal used to prepare the main Ingush cereal dish.[38]

Regarding livestock, there are no state cattle farms but each farming household has at least one cow and a calf- 67,000 couples; and the total sheep population (breeding ewes) is estimated by the Farmers' Association[39] to be in the order of 160,000 head

3.1.4 Outline Cereal balance

Given the information available, it is only possible to prepare an *outline* general cereal balance determined on the premise that conditions remain similar to 2007 with regard to rainfall and pests to identify the probable import[40] requirement.
Assuming the following criteria:
Stocks: unknown- no change in household, trader or mill stocks.
Consumption: standard consumption of 130 kg/ head/annum (maize and wheat)[41]
Animal feed: 500 kg of assorted cereals/ couple (cow and calf)
Seeds: 260 kg per ha wheat; 30 kg per ha maize.
Losses: 7% post harvest in on farm stores.
Alcohol/industry production: zero
Using the following formula:
1. Domestic Requirement = Domestic Availability plus Imports
2. Import Requirement = Domestic Requirement – Domestic Availability
3. Import Requirement = Food + Feed + Seeds + Losses – Production 2008
4. Import Requirement = (61,100 + 33,500 + 11, 400 + 4,260) - 78,000
5. 32,260 t = 110,269 t-78,000 t.
6. Import Requirement for 2008/9 is predicted to be 32,260 t of wheat.

Apart from a possible 126 t of maize seed, no maize or maize flour is imported into Ingushetia. Therefore, the estimated 32,260 tonnes of cereals required to meet the estimated domestic requirement is

[38] Use of maize for human consumption is at least equal to wheat; also maize does not appear in the household food economies in the Tango 2007, again reflecting a sample skewed to Chechnya IDPs who do not eat the Ingush dish.
[39] Gilani,G (2008) Personal Communication, MoA, RI.
[40] Import here refers to intra –Russian Federation movement between Republics.
[41] To this is added c 1000kg of potatoes per backyard (stored in cellar, used during winter);estimated by the Mission to be equivalent to 200kg cereal or c. 30 kg/head/ annum.

expected to be accessed as wheat or as wheat flour, from Stavropol, under the usual commercial procedures. As described above the bulk of the cereals, 71%, that are used are home grown. It is this capability to produce in the backyards and the PHPs that has enabled the population to withstand the post Soviet collapse of the formal economy, the hyperinflation of the early nineties, and the influx of IDPs. WFP support began in 1999 coinciding with the influx of Chechnya IDPs.

3.1.5 Market Supply Chains

Market and prices information was obtained from WFP Reports and from Mission visits to two markets in Nazran. Supply to the markets seems comparatively straightforward.
Regarding "imported" goods, wholesalers, using good roads and unimpeded access to the other Republics of the Russian Federation, buy commodities from Stavropol, Krasnodar and Kabardino-Balkaria and bring the goods daily to the larger markets, and, less frequently once or twice weekly, to regular stopping places such as cross-roads and fields where the commodities are sold from the backs of small trucks. For high price commodities such as cooking oil, processed meats and macaroni sales are in quantity on a weekly / two weekly basis to regular stall holders or shops (termed *supermarkets)*.

Wheat flour is sold to both retailers and individuals by the 50 kg sack. Retailers buy weekly, in quantities according to their turnover, from their regular suppliers on credit in a *scroll-down* fashion, without interest. A similar arrangement exits between the wholesalers and the millers from whom they buy the flour. This arrangement appears to suit all parties, the millers and wholesalers securing guaranteed clients in a very competitive business with profit linked to turnover; and the retailers paying a week or so in arrears. Wholesalers and those retailers selling 50 kg sacks of wheat flour to householders appear to sell only for cash, unless dealing with relatives. Householders put aside money for the wheat flour as part of monthly expenditure, or, if requiring credit borrow from relatives or other sources without interest, until they can pay back the loan (e.g. arrival of remittance/ pension/ salary).

Regarding grains and oilseeds, last year, maize, sunflower seeds and wheat grains were purchased by the retailers from the state farms and agricultural enterprises by the tonne, beginning at harvest time, when prices are lower. The grains are normally bought in bulk, delivered to the households by tractor and stored loose, in heaps outside the steading, covered with a waterproof sheet and fumigated using pesticide tablets, purchased from the farms or from traders. Apart from the direct

purchases made from the management of the units, the women traders interviewed by the Mission, bought equal quantities from staff and labourers paid-in- kind, again mostly at harvest time when the workers, supplied with 7 to 10 tonnes depending on their salaries, needed cash. Such arrangements were evidently long-lasting having been pursued by the stall holders for the past 12 years. Despite retail price increases, no differences in wheat, maize or flour sales had been noted by the women traders, however the volume of business in imported cereal products (macaroni and biscuits) had decreased, while sales of tea had apparently increased.

Locally produced goods from the PHPs and backyards including sunflower seeds, maize, maize flour and vegetables were noted on sale from well-established groups of women stall holders (open air and covered). Vegetables and fruits in-season are sold in quantities varying from a few hundred grams to 5-10 kg by the PHP and backyard producers themselves. No processed/ dried vegetables or fruits were evident at the time of the visit, confirming, by their absence, the USAID 2006 contention that surplus seasonal production is wasted[42].

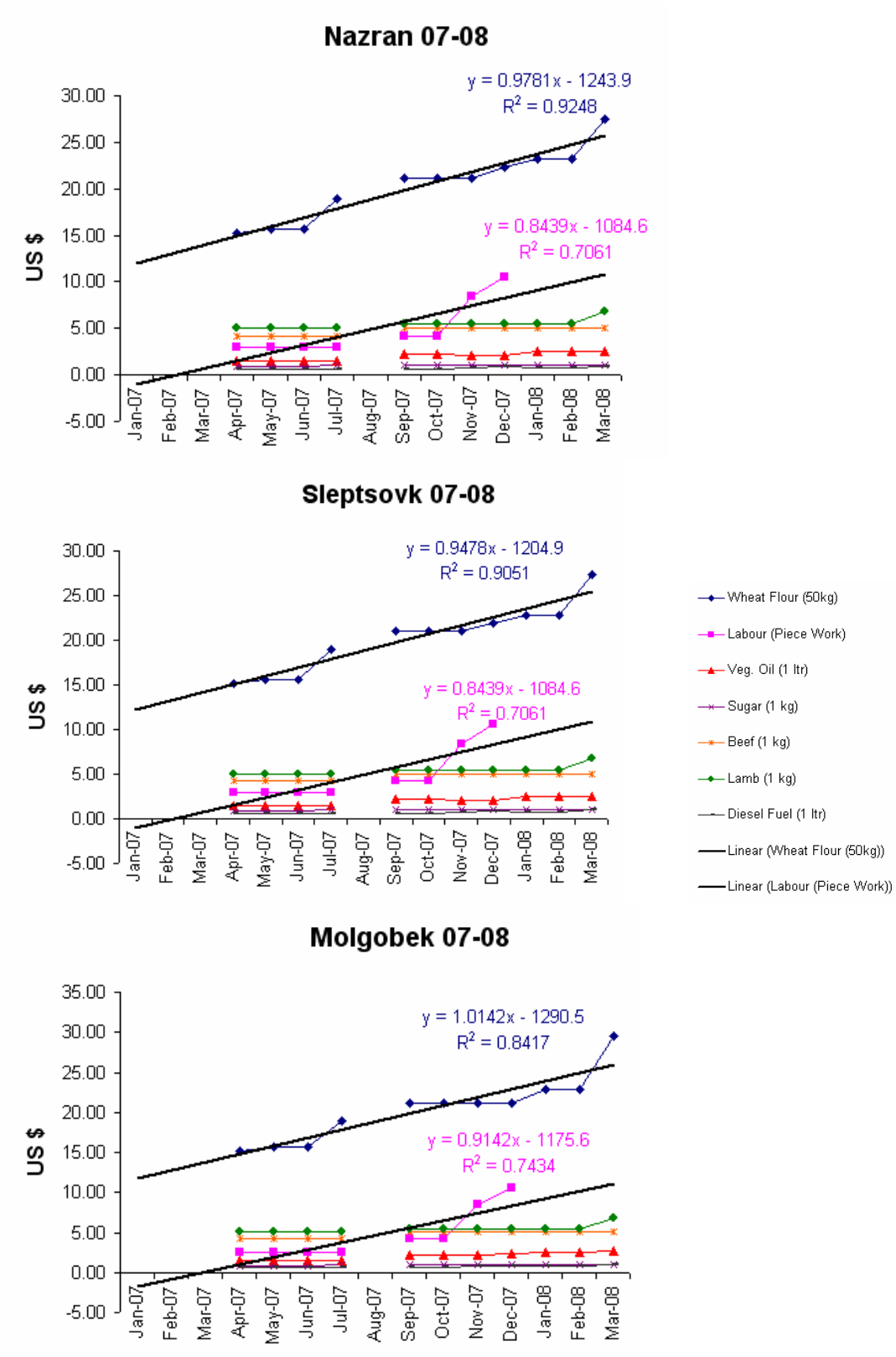
3.1.6 Market Prices

Since the increases in late 2007, local government concerns about changes to the CPI due to food prices have resulted in the publication of directives advising traders to peg prices of basic commodities. In an attempt to clarify the situation in Ingushetia, prices provided to the Mission by WFP Office in Vladikavkas are presented below in Figure 5 and are included in US $ and prices in local currencies, with units, in given in Annex 3.

Of the seven commodities monitored in 3 markets in different districts of Ingushetia, 4- that is diesel, sugar, vegetable oil and beef show no changes in price from January 2007 to March 2008. Lamb, after a similarly immutable series, exhibits a sudden increase in price per kg in each market in March 2008, possibly due to an Ingush festival at the time.[43]

[42] Not including home curing/ salting/ drying/ smoking practices which occurs in every hh to conserve surplus production for use over winter.
[43] No similar increase was noted in Chechnya (see Fig 4)

Figure 5. Market Prices (US $), Ingushetia



Two commodities, wheat and wage labour, show marked differences over the period, both exhibiting similarly proportional increases in each market showing trend lines parallel with one another throughout the period, *i.e.* both increasing in each market at similar rates, at consistent values and with similar closeness of fit as evinced by the regression equations and the regression coefficients, R^2, in Figure 5. The correlation coefficients given in Table 6 indicate a fairly close relationship between the two indicators. As the wage labour indicated is from piece work loading and unloading sacks, then a close relationship between the two indicators is plausible.

Table 6. Relationship between wheat flour price and wage labour, Ingushetia

Market	Correlation Coefficient, Wheat Vs. Labour
Nazran	0.72
Sleptsovsk	0.70
Malgobek	0.68

NB See Figure 5 missing data values labour after Dec 2007.

All 7 commodities are fully integrated in all three markets as is clearly shown in Figure 5, with no further need for analysis. The data, therefore, suggest very similar levels of supply/ demand in each market for each commodity throughout the 15 months.

The level of market integration with Chechnya is discussed in the Conclusions Section 5.2.1 and all correlation coefficients are given in Table 24.

3.1.7 Social Support

As a member of the Russian Federation, Ingushetia's social support system follows the pattern adopted throughout the Federal Republics and is subject to changes therein. The budget for the various components is derived from both Federal disbursements and from local contributions. For Ingushetia, budgetary support appears to come only from Federal contributions and recent increases have been provided by budgetary supplements[44].

In-keeping with Russian Federation policy, three forms of support have been identified. Table 7 shows the different types and their relationships.

[44] See Section 1

Tango found that 75% of households received support to the extent of 40% of their cash incomes. In response to price increases noted in Figure 5, pensions and civil servant salaries were increased 3 times in 2007 and have already been increased twice in 2008, the last time being by 15%. Whereas the increases have been confirmed by the Mission, the delivery may still leave a lot to be desired with regards to inefficiency, favouritism, graft and corruption within the system.[45]

Table 7. Social Support in Ingushetia

Pensions	**Allowances**	**Payments**
Disability: Regular monthly payments to disabled and invalids. Amount varies according to degree of disability Old age; Old age pension for all population-RF standard Veterans; Discretionary for state workers from Generals and judges to labourers	Unemployment: Jobless- for those losing job. 3 months only, Variable income related; Not for the never employed Not for school-leavers Children; Monthly allowance for all children up to 14 years old Presently 8 US $/ month	Maternity; One off payment for each child Presently c.200 US $ Family Education One off allocation for multi child households After 3rd child born for house mortgage/ or children's' education. Presently c.10,000 US $

3.2 Chechnya

3.2.1 General

As shown in Figure 1, located on the northern slopes of the Greater Caucasus Mountain range that seals its southern border with Georgia; and between Ingushetia and Dagestan to the west and east and the grain basket of Stavropol to the north, the Republic of Chechnya, is one of the 89 members of the Russian Federation. With a population of around 1.2 million people in some 200,000 households, Chechnya exists in an uneasy peace following two devastating wars with Russia in the past 16 years. The conflicts have had a fundamental impact on the fabric of society and the economy of the Republic with the destruction of the capital Grozny, bombing and mining of oil installations and the

[45] Kurkiev, I (2006) PhD Thesis. Moscow University (Personal Communication)

effects of war completing the destruction of an industrial and agricultural infrastructure already severely eroded by the break up of the Soviet Union in 1991.

During the height of the second war an estimated 800,000 people were displaced, 200,000 IDPs migrated to Ingushetia alone and social services ceased to exist. Against this, the past 2-3 years have seen remarkable changes; the city of Grozny has been rebuilt[46], oil installations have been re-established and are functioning, 93% of the IDPs lodged in Ingushetia have returned and social services have been resumed.

However, the foregoing notwithstanding, due to the continuing extent of the unease and associated targeted killings by the different sets of protagonists, the Mission entered Chechnya for one day only and under the severe restrictions of movement demanded by UN Phase 4 conditions. In consequence, field visits were limited and key informant interviews in Grozny immutably planned in advance, it was, however possible to hold prolonged discussions with government officials and an independent trader to augment the information by observations (road transects to and from Ingushetia) and interviews with other agency informants (UNDP, Danish Refugee Council, WFP and FAO) and an EMERCOM official in Vladikavkas.

Unlike its smaller neighbour, Chechnya has an urbanised and industrial history with cities and a more discernable distinction between rural and urban populations. UNDP estimates that 34.5 % of the population are urban and 65.5 % are rural. All indigenous families belong to c. 150 clans with territorial rights and access to land, relationships that have a fundamental influence on household food economies.

3.2.2 Macro –Economy

As well as key informant interviews, two major recent studies relating to food security in North Caucasus, Tango (2007)[47] and USAID (2006),[48] were made available to the Mission. As with the conclusions reached by both studies regarding Ingushetia, the conclusions regarding Chechnya are both very similar but more severe regarding the destruction of infrastructure, the devastation of industry, the dislocation of the population and the disruption of social services. The conclusions of both studies create an impression of general dereliction and an economy still

[46] The other main cities were not visited; only Grozny was included in the Mission agenda.
[47] Tango, (2007) Food Security and Nutrition in the North Caucasus, WFP, Russia
[48] USAID (2006) Agricultural assessment in North Caucasus, Russian Federation

in tatters. This is in contrast to observations made during the Mission, albeit in a very limited area, but, in what is described as the most badly affected area of the Republic. Clearly considerable advances have been made in the last 18 months including the return and the re-establishment of 183,000 IDPs (*no IDPs have gone back to Ingushetia)*[49]*;* the rebuilding of Grozny and the re-establishment of agriculture in the plains and backyards around Grozny.

Regarding the demise of industry in Chechnya, this connects to the demise of the Soviet system and the effects of two wars in 15 years, therefore, for the most part, industrial restructuring will involve a total rethink of industrial possibilities based on locally-available raw materials, new supply chains and marketing outlets. The one exception to this is the oil industry.

Missing from both the Tango 2007 and USAID 2006 studies, the oil industry was, and still is, the most important contributor to the macro-economy of Chechnya. The attacks on installations made during the war have already been made good and Grozny is, once again, an important hub in the Russian Federation's oil economy both for its own (Chechnya) production and its strategic position in the pipeline network moving oil from the Caspian Sea to Russia, contributions that explain the rapidity of the rebuild, not only of the industry but also of the communication network and the city itself.

Managed by *Groznefteqaz*, a subsidiary of *Rosneft* and a joint stock company with 41% local Chechnya shareholders, the current production of high quality crude oil is 2.1 million tonnes per year (15.33 million barrels), worth 1.92 billion US $[50]. Presently the crude oil is pumped away for refining elsewhere and fierce negotiations are being pursued to ensure that, in the future, all oil produced in Chechnya is refined in Chechnya; and that the associated gas is sold back to the government, at cost price. As well as 41% share of oil- profits to local share-holders, the Chechnya Government also receives, since 2007, 12.8 million dollars oil profit tax share. Refining this oil, *in situ*, will generate considerable added value and commercial opportunities.

The above identifies Chechnya as an oil-producer with a base- line partial GDP of 1600 US $ per head. The remainder of the GDP is made up by social support contributions and income from other

[49] Danish Refugee Council, (April, 2008) Personal Communication, Nazran.
[50] April 2008 prices. Profits estimated at 1.0 billion US $ (RFE/RL April 3 2008)

industrial/service activities; to which remittances must be added to identify the full GNI of the Republic.

Presently, other than 3 small agro-industry plants (3t /day dairy products; one small flour mill/ bakery; small honey processing unit) no industrial activities exist. The GDP has, however been boosted by the remarkable upturn in the construction industry, fuelled by the rebuilding of Grozny and other cities.

Unemployment is officially 28% slightly lower than the UNDP 2005 estimate of 30% but far lower than estimates for Ingushetia, presumably reflecting the construction boom. Joblessness is however, reported by Tango 2007 to be between 50-80%. As with Ingushetia, (unemployment 60%) the jobless may be described more accurately as *non-employed* as the "jobless" make significant contributions to the household food economies through work done in the subsistence/ near subsistence agricultural sub-sector. Again, as with the neighbouring Republics, such contributions are ignored in agency livelihoods' analyses based solely on cash- income contributions and, therefore, cause rural standards of living to be underestimated.

The Chechnya Republic's budget comes from both contributions from the Russian Federation, taxes on oil profits and other collected revenues. The 2007 budget was 1.2 billion US $, of which 1.04 billion came from the Russian Federation. The 2008 budget is 1.4 billion US $ with 1.2 billion derived from the Russian Federation and 0.2 billion coming from local revenues.[51]

3.2.3 Agricultural Sector.

The structure of agriculture supporting the Republic's production, which is presently undergoing a revival, bears further examination. Clearly, the wars have slowed down the process of privatisation with only 2,201 registered agricultural enterprises, including livestock grazing associations and arable units located in the plains; and, despite the trends throughout the Russian Federation, many state farms are functioning, albeit at a fraction of their previous capacity. The well-documented litany of dilapidation applies to the Chechnya state farms and to the enterprises that replaced them, *viz*

- Irrigation systems collapsed.

[51] ISN Security Watch, Zurich. May 5 2008

- Tractors and farm machinery stolen, destroyed or just very old and inefficient[52].
- Technicians (Russian) all fled.
- No use of improved seeds.
- No access to farm inputs *viz* no fertilisers; no pesticides or herbicides except for project on beets.

Mission calculations, based on key informant interviews, suggest that 62% of the arable land is being farmed this year at some 184,000 ha including state farms, enterprises, PHPs and backyards. This leaves 100,000 ha unfarmed including 6,000 ha of mine and UXO infested lands.[53] Although less so in Chechnya than in Ingushetia, the role of PHPs still has a great influence on local agricultural production. In particular, PHPs are credited with all the local production of vegetables, fruits and honey. In keeping with the subsistence plus concept of the PHPs, the amount appearing in the market place is low and not properly marketed. Therefore, food products noted for sale come from Dagestan or Stavropol.

As with Ingushetia, the MoA appears to be looking backwards rather than forwards in the sense that on the land yet to be privatised, the MoA is looking to re-establish the old state farms to restart the former dairy, sheep, and industrial crop enterprises but in a modern setting, coupled with training and research institutes through aid-gifted projects. The Farmers' Associations, with offices within the MoA, expect supported re-emergence of large-scale agriculture with projects supplying tractors, farm- machinery, irrigation equipment, improved seeds, fertilisers and spray but this time in a private sector in the same form as the joint stock company running the oil industry. The findings of USAID, 2006, identify the obvious short comings of the large-scale sub-sector and would appear to support such ideas, as they follow the model of the re-emergence of agriculture in the USA in the late 1930s.

However, on the other hand the creation of PHPs presents new opportunities for development, as recognised by UNDP, FAO and WFP as being similar to opportunities in Ingushetia for mobilising groups in a series of very small scale pilot interventions including orchard rehabilitation, restocking, extending the growing season through use of plastic tunnels, honey processing, beet planting and backyard chicken

[52] Deficit means combine harvester number needs tripling to meet timely harvesting requirement for 2008 harvest.
[53] UNDP data 2006/7.

rearing. In many of these activities WFP has provided incentives through FFW which has encouraged the activities of small groups.

Recent Republic budgets / plans reacting to the Federal Government policy and budget have included irrigation scheme rehabilitation, credit for the first time including credit for small scale enterprises, training and research into crop improvement. However, operational processes are not clear.

No official statistics for agricultural areas were obtained during the Mission, nevertheless, Table 8 summarises the data available relating to the 2007 season triangulated with other indicators in an attempt to reach a broad estimate of the possible domestic supply of cereals for the coming year, given similar conditions to 2007.

The production systems used are equally as poorly documented as the statistics. Regarding the back yard farms,

- Mission sample transects and driven during the movement of the Consultant from the border to Grozny and UNDP/ WFP/ FAO staff interviews confirm;
  - i) size; ii) full crop occupancy/ inter and relay cropping; iii) hand cultivation and iv) use of FYM.
  - Rich loamy soils, well-established orchards.
  - Good home garden practices
  - Range of crops included potatoes, vegetables, fruits, land dug for spring planting.

Regarding state farms, agricultural enterprises and PHPs,

- Documents and key informant interviews and Mission transects confirm,
  - Rainfed field crop system- no irrigation for field crops.
  - Well-cultivated loamy soils extending throughout the plain.
  - No arable land in mountain districts
  - Tractors and equipment all 15 + years old.
  - Combine harvesters too few and in poor condition/ inefficient/ expensive to hire
  - Land use 70% winter wheat and 30% ploughed and cultivated for spring crops (sunflower plus)
  - 100% use of farmer carry-over seeds (no improved seeds).
  - No use of fertilisers or sprays.
  - No major infestations last year
  - No extension services[54]

[54] Plans are in hand to develop new/ rehabilitate old extension-farmer training centres with UNDP assistance

Low yields of winter wheat at 1.8 t per ha have been used in the calculation noted in Table 8. These may have little relationship to actual yields obtained and bear witness to the need for rapid assessment techniques to be introduced this year to assess the harvestable crops, if realistic assessments of food security are required. Detailed discussions with senior specialists in the MoA, Grozny and leaders of the Farmers' Association, Grozny confirmed that the average production of wheat was from 1.2 t/ ha to c.3.0 t/ha last year under the prevailing rainfed system depending on location. No cereals are presently grown under irrigation and the current system involves a cultivating schedule reduced to three passes: plough, harrow and sow, compared to 4 or 5 passes pre-1991.

Table 8. Chechnya Farming Profile 2008[55]

	Numbers	**Households Farming**	**Area/ Unit ha**	**Total Arable land ha**	**Main crops**	**Estimated cereal product t**
Arable area	Republic	-	295,000[56]	295,000	-	Pre 1990 380,000 t-
Pop	1,200,000	-	-	-	-	
Households	200, 000	c.65 %	0.15 [57] back yard gardens	19,500	Pots; beans, veg; (25%) fruit, oilseeds	-
State Farmland *proportional users unclear/ PHPs and state	130,000 hh State Farms > PHPs, Labourers paid in kind	Minimum 65% PHPs	1 ha PHPs State farms variable size	128,300	wheat 71,300ha, +sunflower +alfalfa +spring cereals all 57,000 ha	129,766 32,000
Ag Ent	2200[1]	-	variable	36,300	Wheat, 26,300ha Oilseeds, Alfalfa,	21,000

[55] Mission findings and reviews.
[56] MoA, Grozny; lower than FA0 1999 at 400,000ha
[57] Back yard c 0.15a and allotments <1.0ha. UNDP 2008, Personal Communication,Vladikavkas.
All on plains none in mountains ; agreed by Farmers' Association and MoA, Grozny.

					Spring cereals, all 10,000 ha	5,000
Total				184,100 (62%)		187,766

*Tango 2007 suggest 65% have allocations- the figure used.

The 187,766 t of all cereals that the Mission suggests may be produced next harvest, has no recent comparator. The FAO (1999) Special Alert, at the height of the conflict in Chechnya, when production was at its lowest ebb, reports that 120,000 ha to 150,000 ha were sown but gives no harvest estimates. USAID 2006 offers no indication of local production.

As with Ingushetia, the large scale livestock farms, except for one dairy farmer, have disintegrated and have yet to be replaced. However, rough grazing, 9000 ha of alfalfa and 17,500 ha of Sudan grass support production from an estimated 200,000 household cattle of which 140,000 are breeding cows; and some 40,000 sheep and goats estimated by the Farmers' Association.[58]

3.2.4 Outline Cereal balance

Given the information available, it is only possible to prepare an *outline* general cereal balance determined on the premise that conditions remain similar to 2007 with regard to rainfall and pests to identify the probable intra – Federation import requirement.
Assuming the following criteria
Stocks: unknown- no change in household, trader or mill stocks.
Consumption: standard consumption of 130 kg/ head/annum wheat[59]
Animal feed: 500 kg of barley plus some wheat per couple (cow and calf)
Seeds: 260 kg per ha wheat; 200 kg per ha maize.
Losses: 7% post harvest in on farm stores.
Alcohol/industry production: zero
Using the following formula:
1. Domestic Requirement = Domestic Availability plus Imports
2. Import[60] Requirement = Domestic Requirement – Domestic Availability

[58] Babu,D(2008) Personal Communication, Chief Economist MoA, Grozny.
[59] Some rye
[60] As with Ingushetia, these are intra- Federation imports from other Republics

3. Import Requirement= Food + Feed + Seeds + Losses – Production 2008
4. Import Requirement = (156,000 + 70,500 + 39, 400 + 10, 920)-187,766
5. 88,554 t = 276,320 t-187,766 t.
6. Import Requirement for 2008/9 marketing year is expected to be 88,554 t of wheat.

The estimated 88,554 tonnes of wheat required to meet the estimated domestic requirement is expected to be accessed as wheat flour from Stavropol under the usual existing commercial procedures. As described above the bulk of the cereals used (67%) are home grown, confirming the role of PHPs and the local sales of grain by state farm that are paid in grain.

3.2.5 Market Supply Chains.

Market details and prices information were obtained from WFP Reports, from detailed Mission discussions with a food supplier based in Grozny; and with the Danish Refugee Council. Supply to the markets seems as follows:
a) Imported goods, wholesalers, using good roads and unimpeded access to the other Republics of the Russian Federation, buy commodities from Stavropol (direct and through Kabardino- Balkaria) and Dagestan; bring the goods daily to the larger markets. No customs or tariffs are charged en route as all movements are within the Russian Federation; however, fines are imposed on overloaded trucks[61].The past year (March 2008 vs March 2007) has seen costs of transporting goods go up by some 35%.
b) Vegetables are imported daily to Grozny from Kabardino- Balkaria; local vegetables *viz* carrots, onions and beans are reported to be on sale in season.
c) Wheat flour is purchased by wealthy dealers trading with the millers in Stavropol and Krasnodasky. Brought to the cities and villages by trucks on a daily basis, the wheat flour is sold to both retailers and individuals by the 50 kg sack. Wholesalers deliver:

- directly to the bigger markets in the cities and to city bakers;
- directly to relatives, who are certified as legal retailers of wheat flour by local authorities in the villages in which they live;
- by splitting loads at strategic points (cross-roads), selling to individuals with access/ traders who carry the goods to remote or otherwise inaccessible villages.

[61] With increased fuel costs it is cheaper to pay the fine than make a second journey

For the most part, retailers buy weekly from their regular suppliers on credit taking one week, paying the next without interest in quantities according to their turnover. Villagers purchase once a month from both retailers and wholesalers by the 50 kg sack. Town dwellers buy bread from the bakers. Wholesalers and those retailers selling 50 kg sacks of wheat flour to householders appear to sell only for cash, unless dealing with relatives. Householders put aside money for the wheat flour as part of the monthly expenditure, or, if requiring credit, borrow from relatives or other sources without interest, until they can pay back the loan (e.g. arrival of remittance/ pension/ salary).

3.2.6 Market Prices

Prices provided to the Mission by WFP are presented below in Figure 6 in US $ and in local currencies, with units, in Annex 3.

Of the 7 commodities monitored in 5 markets in different districts of Chechnya, 5 being diesel, sugar, vegetable oil, lamb and beef show no changes in price from January 2007 to March 2008. Two commodities, wheat flour and wage labour show similar increases within indicators and between indicators in each market. The regression equations exhibit;

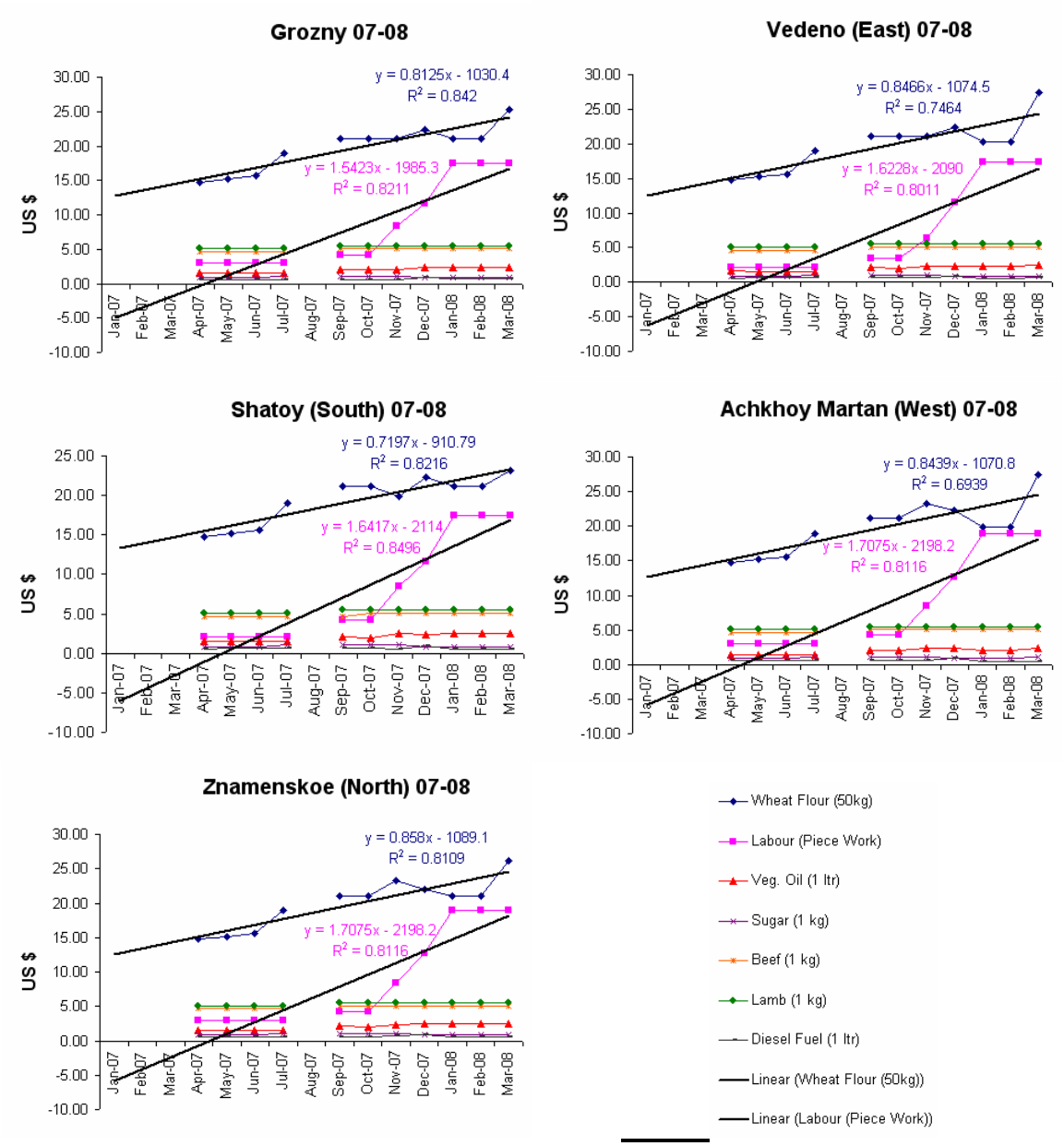
- similar values for gradients for wheat flour;
- similar but steeper gradients for wage labour as noted by converging lines in each graph between the two indicators;
- similar closeness of fits (R^2) in all cases for both indicators except for wheat flour prices in Achkhoy Marten (west).

These similarities suggest all 7 commodities are fully integrated in all five markets. The data suggest very similar levels of supply/ demand in each market catchment for each commodity. Correlation coefficients for wheat flour and wage labour, shown in Table 9, are strong, if slightly lower than Ingushetia, suggesting other forces softening the link.

Table 9. Relationship between wheat flour price and wage labour,
Chechnya

	Correlation Coefficient
Market	**Wheat vs Labour**
Grozny	0.71
Vedeno (East)	0.65
Shatoy (South)	0.72
Achkhoy-Martan (West)	0.59
Znamenskoe (North)	0.68

Figure 6. Market Prices (US $), Chechnya



The level of market integration with Ingushetia is discussed in the Conclusions Section 5.2.1 and correlation coefficients for all commodities are given in Table 24.

3.2.7 Social Support in Chechnya

As a member of the Russian Federation, Chechnya's social support system[62] follows the pattern adopted throughout the Russian Federation. The budget for the various components is derived from both

[62] Moosa, Z (2008) Personal Communication, Deputy Chief Social Services, Min of Social Development and Labour, Grozny.

Federal disbursements and from local contributions. Recent increases (3 x in 2007; 2 x in 2008) have been provided by budgetary supplements[63] In keeping with Federation policy three forms of support have been identified. Table 10 shows the different types and their relationships.

Official data suggest that 260, 000 (21.6 %) of the population received pensions and the supplementary benefits/ allowances were paid as directed by the Russian Federation's rules according to the demography (*i.e.* children received children's allowance; mothers received maternity allowance) to other families. Tango (2007) found that 90% of families in their sample received support to the level of 50% of the household income.

In response to price increases noted in Figure 6, pensions and civil servant salaries were increased 3 times in 2007 and have already been increased twice in 2008, the last time being by 15%. Whereas the increases have been confirmed by the Mission, the delivery of all government payments may still leave a lot to be desired with regards to favouritism, graft and corruption.

Table 10. Social Support Mechanisms in Chechnya

Pensions	**Allowances**	**Payments**
Disability: Regular monthly payments to disabled and invalids 135,000 people. Amount varies according to degree of disability ranging from 130-217 US $ per month Old age; Old age pension for all population-RF standard 125,000 people born before 1956; >87 US $ with latest increases Veterans; Discretionary for state workers from Generals and judges to labourers Repression allowance at 130 US $ per month	Unemployment: Jobless- for those losing job. 3 months only, Variable income related- 40% of final salary; must be > 18 years old Not for the *never employed* Not for school-leavers Children; Monthly allowance for all children up to 14 years old Presently 8 US $/ month	Maternity; One off payment for each child Presently c.200 US $ for every child Family Education One off allocation for multi child households Trust fund payment for all 2nd and 3rd child for house build to increase rooms and facilities/ or children's' education. Presently c.10,000 US $ per child

[63] See Section 1

4. South Caucasus Republics Market Situation Assessment.

4.1 Azerbaijan

4.1.1 General

Azerbaijan is located in the South Caucasus bordering the Caspian Sea to the east, Iran and Turkey to the south, Dagestan (Russian Federation) and Georgia to the north and a closed border with Armenia to the west. As shown in Figure 1, Azerbaijan abuts the Greater Caucasus along part of its northern border and abuts the southern Caucasus along part of its southern border, with the Kura River valley in between flowing into Georgia.

The wide variation in climate and topography resulting from these features and the shoreline with the Caspian Sea produces a diverse agriculture incorporating systems ranging from extensive mountain grazing of sheep and cattle to intensive irrigated vegetable production in the riverine locations.

Population estimates vary, however, the official State Statistics (2007)[64] recognise a population of 8.533 million people of whom 51.5% live in urban areas and 48.5% are in rural areas.

Following a war with Armenia, whose government supported the secession of Nagorno-Karabakh, the resulting cease-fire in 1994 left Azerbaijan with a territorial loss of 14% and 800,000 IDPs, many of whom fled as refugees to other states; at the same time 230,000 Armenians from other parts of Azerbaijan, returned to Armenia. The first few years of independence were, therefore, a very difficult period with war, movement of one million people, and a collapsing financial base due to the break-up of the Soviet Union's command economy, hyperinflation, unemployment and migration.

Since 1995, more political stability has resulted in reforms leading to progressive liberalisation, completion of land privatisation and the opening up of the oil and gas industry for foreign investment[65].

4.1.2 Macro –Economy

[64] Food Security Azerbaijan, Statistical Year Book, 2007.
[65] IFAD,2004

Following the period noted above of war, chaos and discontent after the break-up of the Soviet Union, the Azerbaijan economy began to recover in 1995, with GDP growth being sustained in double figures from 1997 onwards from the nadir reached after the war in 1994.[66] Between 1995 and 2000, agriculture accounted for up to 20% of the GDP due to the liberalisation of trade and a rapid programme of privatisation of land which had an immediate impact on production. Post- 2001, the continuing western investment in the oilfields, increased production and extraction efficiency: and the recent cash windfall of global oil and gas price increases have dramatically increased the GDP and fundamentally altered the contributions made by different sectors of the economy, reducing the contribution of agriculture from 16% (2001) to 7% (2006)[67].

The World Bank Country Brief (2007) shows a *real* dollar value GDP increasing year-by-year to 19.9 billion dollars in 2006 from 5.7 billion dollars in 2001 being equivalent to an increase from 703 US $ to 2347 US $ per head of population. The analysis for 2007 is not yet available but given high increases in oil prices, another quantum leap in GDP is expected. At the same time, recorded workers' remittances and compensations have increased c. 8 fold; percentage of people in poverty has been reduced from 49% in 2001 to 20% in 2006, however, inflation has been growing steadily at the same time, as indicated in Table 11[68].

Table 11. Azerbaijan: Macro-Economic Indicators

Indicator	2002	2003	2004	2005	2006	2007
GDP growth	10.6%	11.2%	10.2%	26.4%	26.6%	26.6% +
Poverty	46.7%	44.7%	40.2%	29.0%	20.0%	<20%
Inflation	2.8%	2.2%	6.7%	9.7%	13.0%	19.0%

The driver for all the progress noted above has been oil, as it has been since the beginning of the 20th century. Annual oil production in 2008 is expected to reach 1.2 million barrels from proven reserves of 1.2 billion barrels and potentially, enormous as yet un-estimated reserves offshore in the Caspian Sea. Main operators in the oil fields are the state oil company SOCAR and an international consortium AIOC, (operated by BP). Oil is exported along three pipelines and by rail, the intermediate countries receive transit fees.

- Baku- Novorossiysk via Grozny to Russian Black Sea (SOCAR).

[66]CIA(2006) The Fact Book, Azerbaijan, USA; World Bank Indicators, WB 2007
[67] World Bank (2007)Country Profiles- Azerbaijan (2007)
[68] UNDP (2007) RC's Annual Report, Baku, Azerbaijan

- Baku-Supsa to Georgia Black Sea ports (AIOC).
- Baku-Tbilisi- Ceyhan to Turkish Mediterranean ports (AIOC).
- Baku to Batumi by railway tanker trucks.

Azerbaijan also refines its own oil for all domestic use, and some imported crude, through its own refineries.

Gas reserves are equally spectacular and remunerative. 60% of the gas is produced by *Azneft*, a SOCAR subsidiary, with the remainder coming from joint ventures, the biggest of which is AIOC. Expansion means that current production is likely to be 500 Bcf, [69]which should meet domestic requirement, some of which is presently imported, and allow 20% for export. Enormous reserves are planned to be accessed in the coming 5 years, and linked to pipelines that will ultimately deliver the gas to Western Europe.
Clearly, the future development prospects are positive, investment is assured and the partial GDP will increase concomitantly year by year for a long time to come if the enormous reserves are exploited.

Other industrial activities connect to mining, quarrying, manufacturing, construction and services and agriculture. The contribution of minerals and manufacturing is minor compared to oil and gas and may be judged by the employment statistics that recognise that only 7% of the working population are employed in industry while 52% are in services and 41% in agriculture.

Although the official unemployed figures are low, *non-employment*, that is unregistered unemployment, is likely to be higher. However, in the rural areas these workers are making significant contributions to the household food economies through what is most clearly a thriving subsistence and near subsistence agricultural sub-sector in areas of higher rainfall and where the irrigation schemes are functioning. Such work is, more often than not, ignored in livelihoods analyses that are analysed solely on cash- income contributions and, therefore, cause rural standards of living to be underestimated.

4.1.3 Agricultural Sector.

As noted above, the agriculture sector followed the pattern of all countries of the Soviet Union after break-up, namely collapse of centrally managed collectives and state farms, bottoming out and recovery. In Azerbaijan's case, the recovery was swift and effective with

[69] Bcf billion cubic feet

the sector contributing 20% to the GDP by 1995[70]. This has been explained as being due to rapid privatisation unlocking the resources. By the same token the falling contribution to GDP from 2001 onwards may be explained by the huge investment in sectors other than agriculture, *i.*e. oil and gas, and their subsequent effect on performance of the energy sector and the knock-on positive effects on the growth of services and construction.

In theory, out of nationally available arable land estimated at 1.79 million ha, 1.43 million ha (79%) are irrigated under the irrigation systems inherited by the government at the break-up of the Soviet Union. A better indication of functioning schemes may be gained from Table 12 showing changes of area sown to different types of crops at three stages of national development *viz* 1995, 2001 and 2006. The table illustrates the immediate post Soviet decline when sown area fell to 75% of the irrigated area; and the subsequent recovery mentioned earlier. Given that the Ministry of Agriculture anticipates that a further 130,000 ha of wheat has been sown this year, while other areas remain the same, area sown in 2008 suggests that 90% of the land may provide returns from sown crops.

Table 12. Estimated Crop Areas[71]

Areas 1000's ha				
Crop	1995	2001	2006	2007
wheat winter & spring	418.7	571.6	561.6	488.6
barley winter & spring	166.8	146.5	179.9	203.8
maize s grain	10.5	30.9	31.9	34.3
rice	2.0	3.8	1.2	1
Others	11.4	8.0	10.1	36.8
cotton	210.4	83.3	102.8	75.6
tobacco	8.0	6.3	1.8	1.2
potatoes	16.0	55.2	66.8	67.1
veg	32.6	96.0	109.0	116.9
orc,vin,tea	209.0	93.9	95.9	119.4
total	1085.4	1095.5	1161	1144.7

A more detailed look at the cereals shows a decline in wheat area between 2001 and 2007 when returns to wheat were poor[72]; a slight increase in maize area and a collapse in rice growing over the same period. Industrial crop area fell dramatically from 1995 particularly tobacco- down by 78%; tea- down by 81%; cotton- down by 50% and

[70] Also influenced by reversals in the other industries with only oil performing.
[71] Azerbaijan Food Security,(2007) Statistical Year Book, Baku
[72] 2007 Winter wheat was sown in Oct 2006, low cash returns saw crop changes to others (lentils, sunflower and sugar beet).

vineyards- down by 92% as either all the supply and/or all the marketing chains disappeared.

Area, however, is only part of the equation. Rainfall is low especially in the east, therefore for most crops, good yields depend on irrigation. The state of both the water supply networks and the drainage canals leaves much to be desired causing arable land, particularly in the east, to be under-used or abandoned. Land occupancy was recorded during Mission driven east -west transects from Baku to Mincegevir; Mincegevir to Ganja and Ganja to the border with Georgia. Cropping began c 100 km from Baku although crops of any significance were only obvious close to the town of Haji-Gabul[73], after which high levels of occupancy were recorded along each route until the border with Georgia.

In any event official statistics[74] show that the agricultural sector now encompasses

- 869,000 households with title to farmland accounting for 1.39 million ha being:
  - 300,000 household plots with an average size 1.6 ha (range 0.7 to 2.3 ha).
  - 180,000 larger units (farms) through amalgamation/sharecropping (average 5.05 ha),
- 40 state enterprises and 15 research institutes with a total size 106,000 ha.

A summary of the current farming profile is given in Table 13.

The production estimated above assumes an average yield of 2.5 t per ha derived from traditional conservative average estimates of harvests of c 1.8 t ha from 100% rainfed cereals and 3.0 tonnes from the irrigated sub-sector, with variable irrigation frequencies.[75]
Conscious of the need to boost home production within a society faced with increased costs of imports, the Ministry of Agriculture has embarked on a support programme designed to stimulate area sown and yield of food crops. This programme includes:

- 40 manat per ha (48.8 US$) subsidy for fuel,

[73] From Baku to Haji-Gabul, collapsed concrete irrigation secondary and tertiary profiles; non –functioning drainage meant that all land was used as rough grazing of large sheep enterprises based in permanent units in the foot hills at variable 1-5 km intervals depending on pasture quality but increasing in frequency towards the west.
[74] Majidar,R (2008) Personal Communication, Dept Economics , MoA; Islam, I (2008) Personal Communication, Land Reform Dept, Moa
[75] Yields are likely to be higher. There is a need for locally organised rapid assessments at harvest time to determine actual yields for all cereals.

- 50% subsidy for fertiliser purchase up to 300 kg per ha.
- 40 manat per ha (48.8 US$) incentive to plant wheat.

The farmers' allowances are paid through banks and credit card cash points (ATMs).

Indirect assistance is given this year (2008) by pegging the price of leasing agricultural machinery, stimulating seed multiplication by paying 100 % of cost of producing elite seeds, and, 40% and 30% of the cost of first generation and second generation seed multiplication respectively. All seed multiplication support is directed towards the existing state farms. The fuel, wheat area, and fertiliser subsidies are for both the household plots and agricultural enterprises and their availability was confirmed in field visits in Ganja and Mincegevir.

Given the global increased price of all farm products in the past 12 months, private investment is expected to have a significant effect increasing the area and efficiency of land utilisation next year.[76] At the same time, the past three years have witnessed growth in the availability of money through banks and the establishment and use of savings and credit agencies.

Table 13. Azerbaijan Farming Profile 2008[77]

Item	Numbers	Households	Area/ Unit ha	Total Arable land ha	Main crops	Estimated cereal product t
Arable area	Republic	1.41 million	-	1.79 million ha	-	Pre 1990 cereals 1.4 million
Pop 2008	8.5 million	869,000	1.6 ha	1.39 mill ha	Cereals. Alfalfa Pots, Veg Fruits maize fruit, oilseeds	-
Households farming	300,000	c.22%[3]	1.6[3] back yard gardens	480,000 ha (240,000 ha cereals)	Cereals. Alfalfa Pots, Veg Fruits maize	600,000t cereals

[76] However, such producer price increases are not apparent in the official figures

[77] from Mission findings and reviews

					fruit, oilseeds	
State Farmland	55 units	-	variable	106,000 ha	Seed Multiply Research farms All crops	190,000t cereals
Ag Ent	180,000 farms from 569,000 hh	20% active using 65% privatised land	4.5 ha av.	804,000ha (580,000ha cereals)	Wheat, barley maize. Oilseeds, alfalfa	1.45 million tonnes of cereals
Cereals 2008					cereals	**2.24 million t**

The Mission noted that 9 banks and 21 credit funds are now working in Azerbaijan, most of the credit funds have been established recently. Large scale loans from banks account for 97% of lending covering entrepreneur funds and mortgages.[78] Regarding savings and credit agencies, Mission visits to ADCI/VOCA in Baku; and FINCA in Baku and Mincegevir confirmed the buoyancy of the credit market and the virtual absence of bad loans[79]. In general such agencies offer a variety of products *viz:* short- term seasonal loans for farmers; farm enterprise loans < 30,000 US$ of longer duration; urban- based express loans for households and SME loans for processing/ trading businesses.

4.1.4 Outline Cereal balance

Given the information available, it is only possible to prepare an *outline* general cereal balance determined on the premise that conditions remain similar to 2007 with regard to rainfall and pests to identify the probable import requirement.
Assuming the following criteria:
Stocks: no change in household, trader or mill stocks; mill stocks currently estimated at 760,000 tonnes[80].
Consumption: standard consumption of 182 kg/ head/annum (wheat) 20 kg maize/ head /annum = 202 kg/ head/ annum[81].
Animal feed: 500 kg[82] of assorted cereals/ cow and calf (1.2 million); 50 kg/ sheep or goat couple (4.8 million) per annum.
Seeds: 260 kg per ha wheat/ 180 kg barley; 30 kg maize.
Losses: 7% post harvest in on farm stores.

[78] Soft loans at 7-8% are available for IDPs
[79] FINCA 50 million US $in loans, loans growing at 2000 /month (Flowers, J.(2008))
[80] MoA Econ Dept (2008) 760,000; FSD Stats Year Book (2007) 98,000t
[81] To this is added c 40kg of potatoes per head per annum; (FSD. MoA)
[82] Mission figure. FSD Stat Year Book (2007) suggests 100,000t all animals.

Alcohol/industry production: 100,000t (Mission estimate).

Using the following formula in *000's* tonnes
1. Domestic Requirement = Domestic Availability plus Imports
2. Import Requirement = Domestic Requirement – Domestic Availability
3. Import Requirement= (Food + Feed + Seeds + Losses + Ind.) - Production 2008
4. Import Requirement = (1,722 + 840 + 190 + 157 + 100) - 2240
5. 769 = 3009-2240.
6. Import Requirement for 2008/9 marketing year is predicted to be 769,000 t.

Import requirement is estimated next year by the Mission at 769,000 t of wheat as wheat or wheat flour. Grain and grain imports over the past 10 years have followed the progress of agriculture noted above being around 700,000 t in 2001 increasing to 1,100,000 t in 2006. The calculation above suggests increases in area sown will return import requirement to the 2001 levels.

4.1.5 Market Supply Chains

Market and prices information were obtained from MoA/ NGO key informant interviews, MoA Statistic Reports; and from Mission visits to two markets in Baku, and two markets in Mincegevir. Supply of wheat flour to the regular markets in towns and cities seems comparatively straightforward. Due to commodity prices increases, there is now no import duty on wheat; and no VAT on wheat, wheat flour or bread.

However, on top of inflation increases, export duty is now raised on wheat ex Russia and is currently at 40% making Russian wheat less competitive with imports from Kazakhstan. The foregoing notwithstanding, the supply chain in Baku and other large urban areas is as follows:

- Stable wheat supply chains exist with Russia, Kazakhstan and Iran.
- o Imported wheat arrives either by ship to Baku, or by rail from Dagestan and Stavropol in the Russian Federation and is delivered to the mills.
- o Some 72 large scale millers handle an estimated 1.5 million tonnes of cereals of which 1.2 million tonnes may be imported[83].
- o The larger mills buy continuously, keeping 3 months stock in hand, which accounts for the high level of stocks reported earlier.

[83]Manager; Sari Sunbul Mill (2008)

- Wheat flour of different grades is then delivered to regular clients[84] being wholesalers (who also collect), large retailers and bakers.
- Wheat flour is sold in 50 kg sacks by wholesalers to retailers[85] and small bakers.
- Stalls, shops and bakers sell flour or bread to customers.

- The supply chain to small towns and villages like Mincegevir varies:
- Wholesalers buy wheat flour from large scale millers, store and supply local retailers in 50 kg bags from stocks (scroll down credit available).
- Wholesalers buy wheat grain from Baku in lots of several tonnes, store and sell to local millers (scroll down credit available).
- Local millers buy grain from farmers and local traders, mill and sell by 50 kg sacks to retailers, bakers and individuals (scroll down credit available).
- Retailers sell flour and bread (credit to family only).

No reductions sales of wheat or wheat flour were reported at any level.

Other imported commodities follow similar supply chains, without the processing. Both locally produced and imported goods are sold through established covered markets with full time market supervisors, small shops and supermarkets.

In an attempt to reduce the impact of rising prices, the government has fostered the establishment of *Yah Marka,* weekly farmers' markets for cities, set up on the fringes of regular markets offering local produce for sale at prices reduced by 30-40%. Mission experience in Baku suggests; a) that the markets are well attended b) farmers are attending the markets bringing the farm products from up to 300 km away; c) farmers coming from a long distance hire trucks, share costs and enter urban markets, previously excluded to them; d) the farm products may be of inferior quality and without the presentation of goods in regular stalls; d) farm products are also sold to the regular stall holders next door.

This is an interesting initiative that offers remarkable project entry points regarding production, quality enhancement, rural processing and marketing skills developments for small farmers that should be fostered. It is the inspiration for Mission recommendation LPO 2.

[84] Coming from smaller cities and towns to preferred millers. Buy on credit in a scroll down fashion; *ie pay for last order; and take new one q*uantities vary with client.
[85] Mission Observations

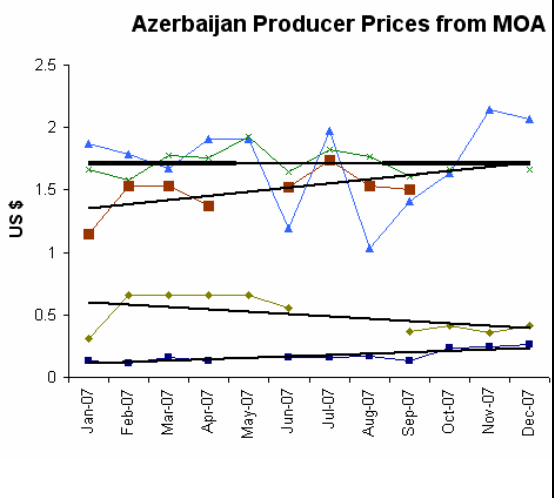
4.1.6 Market Prices

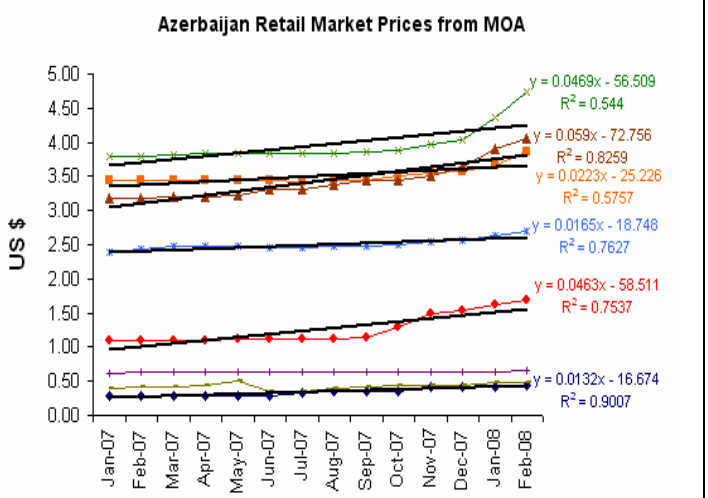
Market prices provided to the Mission by WFP (retail prices 2006- 2008) and Ministry of Agriculture (retail and producer prices from 2007) are presented below in US dollars in Figure 7 in US $ and in local currencies, with units, in Annex 3.

Producer prices show no discernable pattern except for beef which increases over the period from January to December 2007; and a slight increase in wheat over the same period.

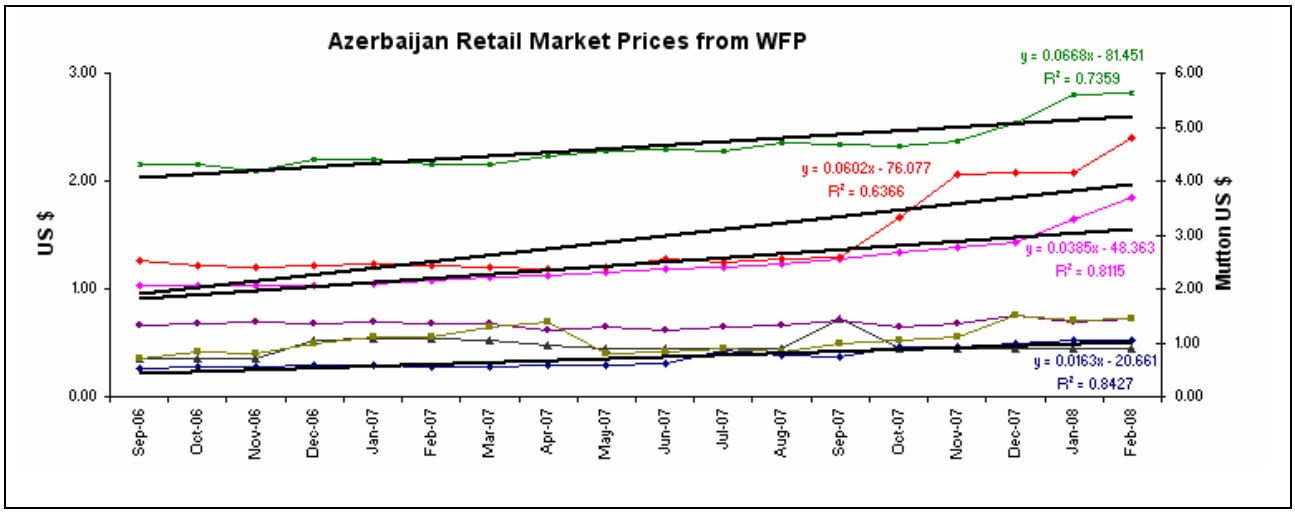
Retail prices each follow similar trends, increasing in the last quarter of 2007 for most commodities. Labour rates are based on piece work per unit, loading and unloading bags so the extrapolation to daily wages is difficult without including rates of work and work opportunities per day that are not available to the Mission. The data suggest a strong relationship between the price of wheat flour and wage labour with a correlation coefficient of 0.905.

Figure 7. Market Prices, Azerbaijan





Legend:
Labour ◇ Wheat ▪ and ◇,[1] Potato [1] Mutton [5], x Pork [5] ▲, Beef [5]
Chicken [5] Sugar ◇ | Diesel ○ Veg. Oil ◇



4.1.7 Social Support

As an ex- member of the USSR, Azerbaijan's social support system is similar in structure to the Russian Federation but contains a wider selection of allowances. The budget for the various components has increased considerably since 1995. Table 14 shows the different types of allowances and relationships.

Table 14. Social Support in Azerbaijan

Pensions	**Allowances**	**Payments**
Disability: Regular monthly payments to disabled and invalids. Amount varies according to degree of disability Average 77.5 US$ / month Old age; Old age pension for all population->62 years man;>57 women 77.2 US$ / month Loss of hh head; 61 US $ / month Veterans; Discretionary for state workers from Generals and judges to labourers	Children; Monthly allowance for all children 39 US $/ head/ month Disabled children under 18* 30 US $ / head/ month. Loss of hh head 30 US $/ month Supplementary benefits: Life benefit for State employees 20 US $ /month. Transport + services 18 US $/ month. Age supplement 36 US$/ month Disability 30 US $/ month Multi- children 7.6	Maternity; One off payment for each child 35 US $ Funeral 76 US $ one –off Chernobyl affected; 132 US $ one-off

Variable for persons of rank.	US $ Orphans 11.2 US$	

* Increased from 16 years in 2008

Official data show that at the beginning of 2008, there were 1.25 million pensioners, being 14.7% of the population, a further 0.275 million (3%) receive supplementary benefits in the form of social allowances. In response to price increases noted in Figure 7 from January 2007 to January 2008,

- disability pensions increased by 42%;
- old age pensions increased by 57%;
- loss of head of household pensions increased by 55%;
- Supplementary benefits and allowances have also been increased by 34%.

Whereas the increases have been confirmed by the Mission, the delivery may still leave a lot to be desired with regards to inefficiency, favouritism, graft and corruption within the system, to this end most payments are available through banks and through credit card ATMs. The foregoing notwithstanding, Azerbaijan is placed in the middle rank countries in the UN Human Development Indicators list.

4. 2. Georgia

4.2.1 General

Located in the South Caucasus as shown in Figure 1, on the eastern shore of the Black Sea with Azerbaijan to the east, Turkey and Armenia to the south and the Russian Federation to the north, Georgia abuts the Greater Caucasus along part of its northern border and the southern Caucasus along part of its southern border. The eastern half of the country is part of the *Kura* River water catchment before the river turns south into Turkey at its conjunction with Georgia's south western mountains; and the western half provides the water catchment for the *Rionni* river that flows through a continuation of the central lowlands, entering the Back Sea at the commercially significant port of Poti.

The wide variation in climate and topography resulting from these features produces a diverse agriculture incorporating systems ranging from arable farming in the central lowlands, extensive mountain grazing of sheep and cattle in the mountains and intensive vegetable/ fruit/ nut growing in orchards and backyards across the country.

Population estimates vary between <4.5 million (EU, 2008) to a predicted July 2008 estimate of 4.63 million (CIA, 2008)[86] of whom 52.5% live in urban areas and 47.5% are in rural areas.

Following the break-up of the Soviet Union, the country followed a similar phased development pattern to its neighbours,

- civil unrest, in this case leading to the secession of two breakaway regions, Abkhazia and South Ossetia that are presently (2008) outside the control of central government;
- bottoming-out with a nadir of economic development, hyperinflation and industrial collapse;
- recovery, albeit more stuttering than the neighbours, reaching a *real* GDP growth of double figures in 2006.

The first decade of independence was, therefore, a very difficult period with civil war, secessions, and a movement of 300,000 IDPs, a collapsing financial base due to the break-up of the Soviet Union's command economy, hyperinflation, rampant corruption, unemployment and large scale migration to Russia and beyond.
Since 2004, political change has resulted in plans leading to liberalisation, land privatisation and improved social services. The foregoing notwithstanding, in general terms, Georgia is presently ranked with Azerbaijan and Armenia in the World Bank middle–income group of countries.

4.2.2 Macro–Economy

Following the period noted above of civil war, chaos and disruption after the break-up of the Soviet Union, the Georgian economy rose and fell from 1995 with GDP growth reaching double figures in 1996 and 1997 then falling to 1.8% in 2000, and apart from a fillip in 2003, not reaching double figures again until 2006. At the same time, massive migration of up to 1 million people eroded the quality of the workforce but did, simultaneously, generate a new source of income via remittances, which, with backyard farming, did play and still plays a highly significant role in the household food economies of most families.

The Georgian- EU Quarterly Report on Economic Trends (2008) data in Table 15 show a *real* dollar value GDP increasing year-by-year to 9.5 billion dollars in 2007 from 3.29 billion dollars in 2001, being equivalent to an increase from 731 US $ to 2065 US $ per head of population. At the same time, the net average nominal wage has increased year by

[86] EU,(2008) Georgian Economic Trends; CIA. Fact Book, (2008)

year since 2003 at rate greater than increases in inflation; percentage of people in poverty has been reduced from 51% in 2001 to 23% in 2006.[87]

Table 15. Georgia: Macro- Economic Indicators

Indicator	2002	2003	2004	2005	2006	2007
GDP growth	5.5%	11.1%	5.9%	9.6%	9.4%	12.0%
Wage %>	20	2.4	14.7	28.3	27.4	23.9
Poverty ind.*	51.1	52.1	54.5	24.6	23.3	n/a
Inflation	n/a	n/a	4.7%	7.9%	8.4%	13.0%

* Threshold lowered in 2006

The drivers for the progress made have been foreign investment and growth in the construction, banking, other services and mining sectors. Exports have grown, albeit slowly, despite restrictions on agricultural exports to Russia since 2005. However, the level achieved is not to the same as extent as imports have grown. This has caused the trade deficit to widen particularly as annual national oil production produces less that 15% of the country's needs. However, Georgia's strategic location allows the opportunity to generate income from the movement of oil and gas to the Black Sea, and to benefit substantially from imports of gas from Azerbaijan, as shown in Figure 2, 3 and 4. Oil and gas are transmitted along:

- Baku-Supsa to Georgia , Black Sea ports,(oil).
- Baku-Tbilisi- Ceyhan to Turkish Mediterranean ports, (oil).
- Baku-Tbilisi- Erzurum, Turkey (gas).
- Railway tanker trucks Kars- Akhalkalaki (all goods).

Other industrial activities connect to mining of manganese and copper, manufacturing of beverages, metals and aircraft, chemicals, and agriculture. The contribution of minerals and manufacturing is minor and may be judged by the employment statistics that recognise that only 8.9% of the working population are employed in industry while 35.5% in services and 55.6% in agriculture. Although the official unemployed figures are low at 13.6%, *non-employment,* that is unregistered unemployment, is higher. However, in the rural areas these workers are making significant contributions to the household food economies through what is most clearly a thriving subsistence and near subsistence agricultural sub-sector.

[87] Poverty threshold lowered in 2006

Such work is, more often than not, ignored in livelihoods analyses that are analysed solely on cash- income contributions and, therefore, cause rural standards of living to be underestimated. However, Beuter and Herfurth (2007)[88], who conducted a comprehensive review of the economy, markets and food security in Georgia six months ago, have brought this component into focus. However, they cite AgVantage (2006) data claiming nearly 50% of the farming families are producing below subsistence level, which should be viewed in connection with their own findings later in the report (Section 6) identifying that for the average household, some 27% of home produced produce is sold.[89]

4.2.3 Agricultural Sector.

As noted above, the agricultural sector followed the pattern of all countries of the Soviet Union after break-up, namely collapse of centrally managed collectives and state farms, bottoming out and recovery. In Georgia's case, the recovery has been slow and the agricultural share of the GDP has fallen from 30% in 1990 through 21% in 2001 to 10% in 2007. The falling contribution may be explained by:

- the hiatus in privatisation between 1996 and 2006, and
- a concomitant lack of a basic policy that continues until today.
- the emergence of unchallenged monopolies creating disincentives to investment; and
- the erosion of services to a collapsed national industry in the context of global, regional and sub-regional change.

By the same token the falling contribution to GDP from 2001 onwards may also be explained by the investment in sectors other than agriculture, and the subsequent growth of services and construction.

Most of the arable land, estimated at around 1.06 million ha, is situated in the highly fertile central lowlands. 0.469 million ha (44%) are irrigated under the irrigation systems inherited by the government at the break-up of the Soviet Union. Working at varying degrees of efficiency, some 319,000 ha (30%) are currently irrigated under supply schemes managed by 4 newly- formed, joint stock companies, responsible for the primary canals. Secondary canals are managed through *water-users associations* established under a World Bank

[88] Beuter,T and Herfurth, W (2007) Market assessment , Georgia, WFP Mission Report, Cairo.

[89] Mission transects to west and east suggest that the AgVantage conclusion needs revisiting and actual estimates based on measurements made of hh farm production at harvest time are undertaken in each region. *Marketing surpluses* rather than *making good deficits* would seem to be the real problem and requires a totally different set of supporting interventions.

funded programme and tertiary canals are the responsibility of the farmers themselves.

Two waves of land distribution have resulted in the formation by privatisation of 820,000 household farms and 100 large scale enterprises. These holdings at some 1.25 ha , coupled with extremely impressive backyard kitchen gardens and orchards of areas between 0.5- 1.0 ha, are now the back-bone of national agricultural production. A greater number of larger units are emerging but appear to be constituted by entrepreneurs purchasing and amalgamating the privatised small holdings rather than by purchasing the unsold state farm lands remaining.[90]

Good irrigated land with established orchards and vineyards is currently being sold within the private sector at 2-3000 US $ per ha. The best water-supplied land is capable of growing 3 crops per year and is now attracting the attention of investors, both local and foreign, as prices of farm products rise. Major millers and grain traders consulted by the Mission, are contemplating buying land and investing in wheat in a major shift of direction since 2006, to reduce their dependency on imports. The interest shown by such local entrepreneurs and others connects to an accurate appreciation of the actual agricultural value of most of the land in the central lowlands, which is far greater than is suggested by the oft-quoted agricultural production statistics.

The apparent anomaly, noted by the Mission in transects conducted from Tbilisi to Kakeheti, Tbilisi to Ozurgati and Tbilisi to the Armenia border, between soil, vegetation, land occupancy, sowing rates, condition of growing crops and what were very clearly high quality agricultural practices and the conventionally accepted yields[91] caused the Mission to investigate the source of the estimates and how such estimates are determined.

The findings are as follows:-.
1. It appears that annual crop production, as cited previously from 1991 to 2005, was estimated from area and yield data derived from MoA national and regional aggregations of statistics. These were accumulated by district level MoA staff visiting contact farmers and local officials, at

[90] The Mission was informed by potential buyer that the remaining land although inexpensive, based on a fraction of its actual value, was fraught with purchasing problems, viz bureaucracy and unregistered occupants.
[91] Cited *inter alia* by Beuter and Herfurth (2007)

various times in the year, and asking for area and yield estimates for each crop[92].
2. Since 2003/4, the closing of all MoA district offices and the cessation of all MoA field activities eliminated any semblance of reality from the agricultural data collecting process.
3. Consequently, *the Mission surmises*, that over the years from 1991 to 2005, whereas estimated area may bear some resemblance to the truth, yields appear to have been either;

- based on the lowest previous yields per ha ever recorded by the state farms and collectives after everyone had had their share, or
- based on surplus yields per household, after their own family requirements were removed; or
- based on returns for tax or possible future taxation or commandeering in times of conflict and strife; or
- all three of the above.

In any event, average yields cited of 1.2- 1.8 tonnes per ha of wheat, 1.8 to 2.0 tonnes per ha of maize, 7.4- 10.0 tonnes per ha of main crop potatoes appear to the Mission, after transects in west and east Georgia, forensic observations in maize fields and discussions with farmers, to be so under-estimated as to be highly unlikely in a country with what is seen by the Mission as, essentially, a Mediterranean climate and with 30% of the crops irrigated.[93]

Conscious of the inadequacies, an FAO-EU supported programme to establish an annual agricultural sample survey began in 2007. The 2006 estimates were obtained retrospectively from *one single visit* by new enumerators to a sample of 5000 farmers in *January/ February 2007*. The results, even lower than estimates of the previous years under the old system, were attributed *to be due to unfavourable weather conditions*[94].

Mission interpretations of Chart 3 in Beuter and Herfurth (2007) constructed using the 2006 estimates suggest that although domestic wheat production supposedly fell by 60%, imports, with food aid, only

[92] Information from Head of Stats Dept, Ag and Env Div, Min of Econ Dev.; Head of Food Security Observatory
[93] Some 50% of yields quoted in Chechnya , Azerbaijan and Armenia, cereal yields like these are obtained under rainfed conditions in the semi-arid areas of Tigray, Ethiopia, not in the loamy soils of Georgia.
[94] The Mission finds that the universal acceptance of this explanation to be a cause for concern. That the year was worse than usual is not contended, however, if yield estimates for a normal year are too low, further deductions based on the premise that the year is x% worse than the norm are likely to be very misleading.

rose by 15%, which appears to confirm the extent of the probable underestimation being around 45%.

Regarding the 2007 harvest, the survey was conducted according to the predetermined schedule. Five visits to each sample farmer, 4 at intervals during the year and a summary visit in January and February 2008 were made by enumerators who interviewed a stratified sample of 5,000 out of 820,000 farmers. The results were not available at the time of the Mission, but should, in theory, be a better estimate than 2006. However,

- as no field sampling, no measuring and no weighing is incorporated into the process, the survey relies solely on interviews with householders, therefore, most of the concerns noted above (point 3) still apply.
- Unless they are given a great deal of political support, it will take very confident assessors to fly in the face of the published returns of the past fifteen years.

It is, therefore, unlikely that quantum leap in production will occur, which suggests that parallel analyses, based on rapid field assessment techniques are urgently required. During discussions with officials, the Mission was referred to NDVI images said to confirm the yields estimated in 2006. In this regard, the Mission feels that NDVI values, although useful in confirming the direction of change in overall patterns of growth in different areas of any country, do not provide information on yield. As with all remote-sensing tools and mathematical modelling, transforming values into production figures depends on the realistic calibration of the models. Realistic calibration of models can only take place if accurate yield data have been collected for each crop over a period of years. In the opinion of the Mission, such data are not yet available in Georgia.

Despite the above reservations, a time series of area data is presented below in Table 16 showing changes of area sown to different types of crops at three stages of national development *viz* 1990, 2001, 2005 and 2006. The table illustrates a post Soviet 23% decline in area sown to field crops, without the 2006 figures. Within the more meaningful 1990 to 2005 frame work, the fodder area, by far the greatest area under cultivation (46%) fell by 85% as the cattle and sheep farms were broken up. Industrial crop area, included in the Table 16 under 'others', declined. In contrast, maize area doubled and wheat, barley and vegetable areas increased slightly, only to be under-reported in 2006.

Table 16. Estimated Crop Areas[95]

Field crop areas '000s ha

Crop	1990	2001	2005	2006
wheat	92.0	113.7	99.0	58.0
barley	47.2	45.0	59.1	25.8
maize	109.0	180.3	221.7	120.7
potatoes	27.7	36.3	36.0	22.7
veg	39.2	38.5	44.6	27.3
other	57.8	98.9	32.2	57.8
fodder	329.0	51.8	50.7	17.9
Total	701.9	564.5	543.3	330.2

With no figures available for 2007, the 2008 agricultural profile described in Table 17 has been drawn up using the data for Statistical Collection for year 2005, qualitative information from three Mission transects driven from Tbilisi- Sagarejo- Kakeheti- Tbilisi; and Tbilisi - Poti-Ozurgeti- Zurgidi- Tbilisi; and Tbilisi - Armenia border and Mission key informant interviews in the MoA, Min of Econ Dev. and with grain traders, farmers' associations and millers.

Table 17. Georgia Farming Profile 2008[96]

Item	Numbers	Households	Area/ Unit ha	Total Arable land ha	Main crops	Estimated cereal product t
Arable area	Republic		-	c. 1.1 million ha	-	1990 cereals 630,000t
Pop 2008	4.5 million	1,125,000	-	-	-	-
Households farming	820,000	c.73%	1.1 back yard gardens	c 900,000 ha (380,000 ha cereals)	Cereals. Alfalfa Pots, Veg Fruits maize fruit, oilseeds	760,000t cereals
State Farmland	n/a	-		106,000 ha	Used as rough grazing	
Ag Ent	100 units		50-200	10,000 ha (20,000ha	Wheat, barley	20,000t cereals

[95] Mission figures recalculated from 2006 Statistical Collection.Dept of Stats, Tiblisi, 2007. "007 releases may re-establish normal cereal levels.
[96] from Mission findings and reviews.

				cereals)	maize. Oilseeds, alfalfa	
Cereals 2008					cereals	**0.78 million t**

The production estimated above assumes an average yield of 2.0 t per ha derived from traditional conservative average estimates of harvests of c 1.2 t ha from 100% rainfed cereals and 3.0 tonnes from the irrigated sub-sector, with variable irrigation frequencies.[97]
As may be inferred from the above, farming systems can be characterised as low-input, high labour systems that have evolved to suit the opportunities available.

According to 2006 Statistics Collection, there are only 50,000 tractors and 25,000 are one-axle walking tractors. The single axle units are the most efficient power sources for the backyards and households plots but they appear to be no longer available. Proposals to replace 2- wheeled tractors with imported large 4 wheeled models connect to proposals to disregard the small household plots and to focus on the post-1930's American model of farm development.

Both proposals should be looked at very critically and in the light of a) accurate assessments of yields of all the crops that are efficiently produced under the existing systems; b) environmentally friendly, employment maintaining, society enhancing rural development. At the other end of the scale, the presence of a mere 200 combine harvesters suggests an extraordinary prolonged harvest period or the presence of Turkish type mobile threshers. If these small-scale mobile threshers are not present, they should be introduced to relieve the pressure of the combines, and simultaneously improve the quality of the grain harvest.

The list of power sources and equipment does not include horses or oxen, both forms of animal traction were noted during transects to the east in both the vineyards and back yards. Hand digging and post digging bund and ridge making and manuring were also noted throughout the country, practised with skill, resulting in clean well-ordered fields and, by implication, higher than recorded yields at harvest time.

With the exception of potatoes, where there seems to be some trade in seed with Armenia, field crop seeds are for the most part, local seeds

[97] Yields are likely to be higher. There is a need for locally organised rapid assessments at harvest time to determine actual yields for all cereals.

developed 20 years ago under the Soviet seed development programmes. Farmers select seed after harvest and carry-over the stock for next season. It is likely that there are local exchanges taking place, which could form the basis of participatory seed development programmes as an alternative to the establishment of a new wave of government centres presently contemplated.

Fertiliser use is estimated at 96,000 t for all crops, which at 300kg/ ha would be enough for around 30% of the arable area. Conscious of the need to boost home production within a society faced with increased costs of imports, the Ministry of Agriculture has embarked on a support programme designed to stimulate area sown and yield of food crops. This programme includes:

- 20 litre per household farm fuel allowance (c.0.5 ha plough),
- the distribution of 350 tractors,
- rehabilitating 400 km of irrigation canals,
- 12% agricultural credit for agricultural enterprises.

These are all part of the 50 day programme started in December 2007, designed to stimulate investment, revive rural areas and support social assistance, pensions and education.

Regarding the farmers' fuel allowances, to stimulate ploughing in spring, 82% had been disbursed and 30% had been redeemed at the time of the Mission. Other elements appear to be in place, however, to what extent is uncertain, given the absence of MoA staff in rural areas. There is also concern among UN agencies and others that the 50 day programme is too aptly named, and, motivated by temporary political concerns and will neither be fulfilled, nor will endure due to the absence of an overall strategic plan.

Clearly, any hint of policy/ strategy[98] would appear to be connected to an overriding acceptance that *market forces* will prevail in resurrecting agricultural production without the need for state interventions. Given the increased price in the past 12 months of all farm products, private investment is expected to have a significant effect in increasing the area and efficiency of land utilisation this year.

[98] A policy document was produced by donors, led by UNDP/ USAID "National Food and Agricultural Strategy 2006-2015 without government involvement. It was not accepted by the Gov of Georgia. A policy unit is presently being established within the Min of Econ Dev with funding from EU; a policy document being a requirement *sine qua non* for consideration for EU entry.

At the same time, projects connected to information systems have been revived by FAO
(no FAOSTAT update since 2004) and are included in a pipeline that includes

- Information systems support.
- Animal disease surveillance and protection for avian influenza, foot and mouth disease, and swine fever.
- Food safety/ bio-tech safety capacity building.
- Marketing capacity building and protection of wine appellations.
- Genetic resources development for improved food security.
- Development of bee keeping.
- Reintroduction of a district MoA offices.

As there is no policy / strategy to follow, most projects are either small budget TA studies or are part of Regional Programmes.

Since 2005, there has been a discernable upsurge of activity in the banking sector. The People's Bank appears to be at the forefront of a number of initiatives to bring banking to the householders. 210 banks in the districts, static and mobile ATMs that accept credit cards from pensioners, farmers, school-children, border taxes and prisoners have been introduced to reduce corruption and enhance the safety of individual transactions. The same bank now offers 3 types of credit for farmers, general credit with 80 loans up to 700,000 US $; 5 loans at 150,000 US $ for sunflower seed production (Kakeheti district) and 30 loans at 69,000 US $ each for fruit and vegetable production for private companies. The loans are at reduced levels of interest.

4.2.4 Outline Cereal balance

Given the information available, it is only possible to prepare an *outline* general cereal balance determined on the premise that conditions remain similar to 2007 with regard to rainfall and pests to identify the probable import requirement.
Assuming the following criteria:
Stocks: no change in household, trader or mill stocks; mill stocks currently estimated at 50,000 tonnes[99].
Consumption: standard consumption of 217 kg/ head/annum (cereals) [100]

Animal feed: 262,000 t (Min Econ Dev).

[99] MoA Tiblisis- no strategic stocks exists; all stocks held are millers' commercial advance purchases to maintain mill through put by MoA c. 50.000t; millers estimates are higher.
[100] 141kg flour =188 kg grain wheat; 29 kg maize. To this is added c 44kg of potatoes per head per annum; (MEc Dev)

Seeds: 46,000 t (Mission) 250 kg per ha wheat/ barley; 30 kg maize per ha.
Losses: 12% post harvest in on farm stores (55% domestic production is maize).
Alcohol/industry production: 10,000t (Mission estimate)
Export: 70,000 t (Min Econ Dev)
Using the following formula in *000's* tonnes
1. Domestic Requirement = Domestic Availability plus Imports
2. Import Requirement = Domestic Requirement – Domestic Availability
3. Import Requirement = (Food + Feed + Seeds + Losses + Ind + Export.) - Production 2008
4. Import Requirement = (1,001 + 262 + 46 + 88 + 10 + 70)- 780
5. 737 = 1517-780
6. Import Requirement for 2008/9 marketing year is expected to be 737,000 t.
Import requirement is estimated next year by the Mission at 737,000 t of wheat as wheat or wheat flour. Grain and grain imports over the past 10 years have ranged from 710,000t in 2001 to 859,000t in 2006, which reflects a reversal in the declining trend of domestic cereal production.

4.2.5 Market Supply Chains

Market and prices information were obtained from Min Econ Dev Statistical Collections, WFP office analyses and Beuter and Herfurth (2007) plus spot visits to markets in Sagarejo. Beuter and Herfurth categorise Georgian food supply chains into two types, i) local seasonally orientated producer/small trader supply chains providing markets with perishable fresh goods; ii) more sophisticated, imported non-perishable, processed goods supplied by major importers and wholesalers and marketed via second tier wholesalers to wholesale/ retailers and supermarkets, shops and market stalls. In the reverse direction, exports from Georgia comprise citrus, hazelnuts, grapes, wine, potatoes and small amounts of cereals, probably maize.

Mission reviews of the supply chains of 2 millers (Tbilisi- 550t/day; Zugidi- 150t /day), international trading companies and market wholesaler- retailers indicate that flour in the regular markets in villages, towns and cities comes from four main sources:

- Locally produced wheat (and maize in west) is milled by local millers and sold to bakers and retailers.
- Wheat is imported by traders (e.g. Agrikom) sold to large scale millers around Tbilisi and to millers in the districts to augment the local grain supply.

- Large scale millers import their own wheat from Russia, Kazakhstan, Ukraine and Turkey.
- Wheat flour is imported from Russia and Ukraine

Affected by both global cereal price increases and initially a 10 % Russian export tax (Oct 2007) increasing to 40% in January 2008, imported wheat prices increased from *cif* 220- 240 US $ per tonne in early 2007 to *cif* 450-470 in late 2007. The levy on Russian exports noted earlier in this report has made the importing of wheat from Russia a less attractive proposition for grain traders and self-importing millers. It has also left grain traders with grain that is not easy to sell, and, possibly, some of the smaller millers without flexible credit and limited stocks, with purchasing problems.

A government brokered deal with Kazakhstan to import 20,000 t at *fob* 400 US $ per tonne which connects to a *cif* POTI price of 470 US $ per tonne eased the pressure on the supply chain on the larger millers with good connections who are now holding 1-2 months stocks that are expected to tide them over until prices begin to fall with the coming harvest and anticipated removal of the Russian tariff.

Mid-2008 Turkish wheat grain prices are reported to be *cif* 515 US $ according to key informants in Zugidi. Adding processing cost increases at < 5%, bank interest increases at 2% and Georgian VAT at 18% means that the final product in the form of 50 kg bags of wheat flour is now retailed at 51 to 54 GEL (35-37.5 US $), depending on location compared to 41- 44 GEL (28.5-30.5 US $) one year ago.

The fourth supply route noted above is in the form of wheat flour. Presently retailing at 45 to 47 GEL, wheat flour is being imported from Ukraine and Russia. The flour is said to be of poorer quality (black, white or first grade compared with locally- milled premium grade) and therefore competing only at the lower end of the market. At the same time wholesaler and retailer purchasing loyalties to the larger mills are firmly attached to credit arrangements that allow *scroll- down* and monthly credit opportunities. Given that the efficient, newly established or refurbished large mills, like the two visited by the Mission, are both involved in rapid expansion with associated support from their banks due to increasing rather than falling sales; the supply chain will continue to function. Small mills relying on imported grain from Russia and with no bank support, may find it difficult to survive.

Other imported commodities follow similar supply chains, without the need for local processing. 100% of sugar, 75% of vegetable oils, 50% of

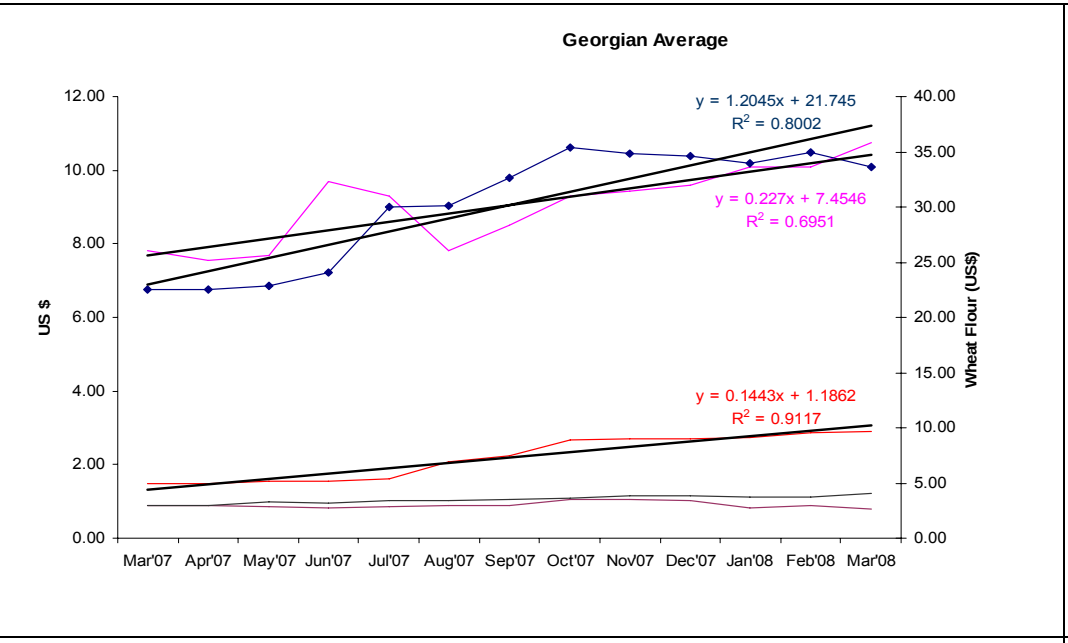
the poultry, 18% of eggs and 12.5% of dairy products are imported. Beef imports vary with season averaging around 30%; but pork marketed through the towns and cities would appear to be mostly imported as the home industry is based on backyard units for subsistence and local sales only[101].

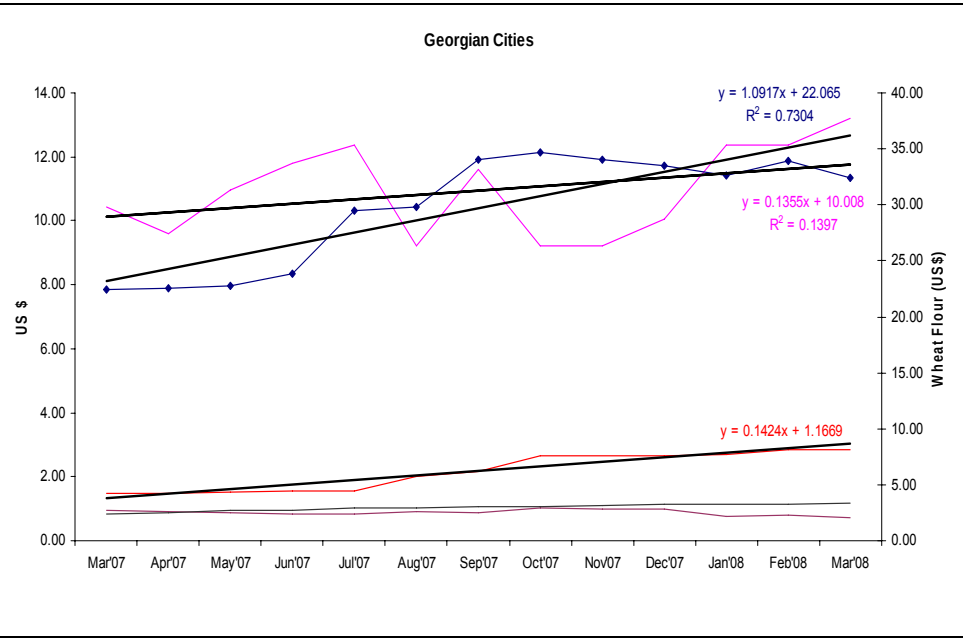
4.2.6 Market Prices

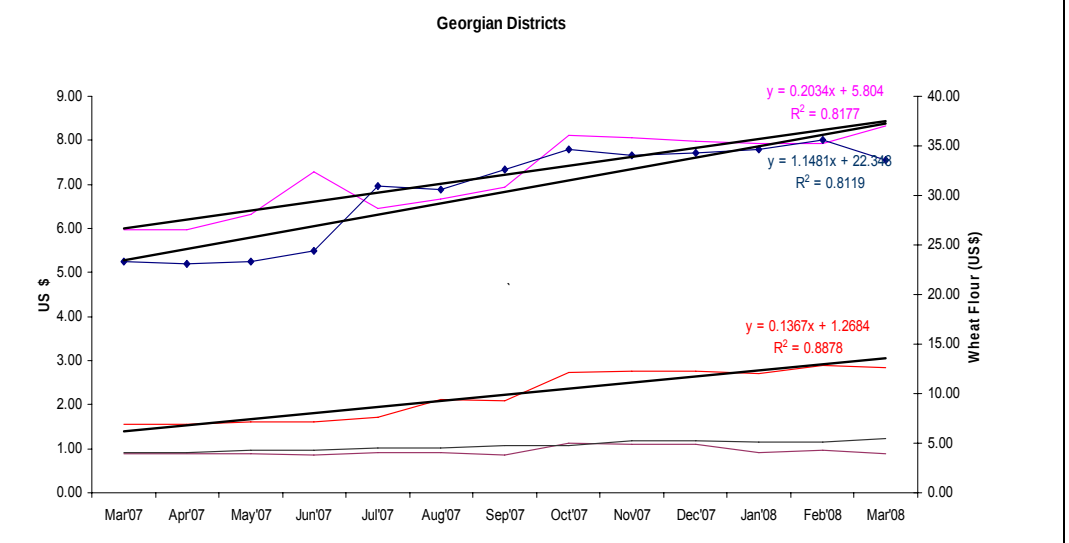
Georgia market prices are available as a WFP national summary, plus WFP summaries for districts, regions and cities and for the autonomous region of Abkhazia. These data, presented in Figure 8 (Georgia) and Figure 9 (Abkhazia) show that for Georgia prices increased throughout most of 2007, peaking in October- November. Prices then, except for vegetable oil, stabilised, tailing off in the first quarter of 2008, wage labour, however, continued to rise in each sample.

[101] Such local sales and home consumption was reduced by the outbreak of African Swine Fever.

Figure 8. Market Prices, Georgia







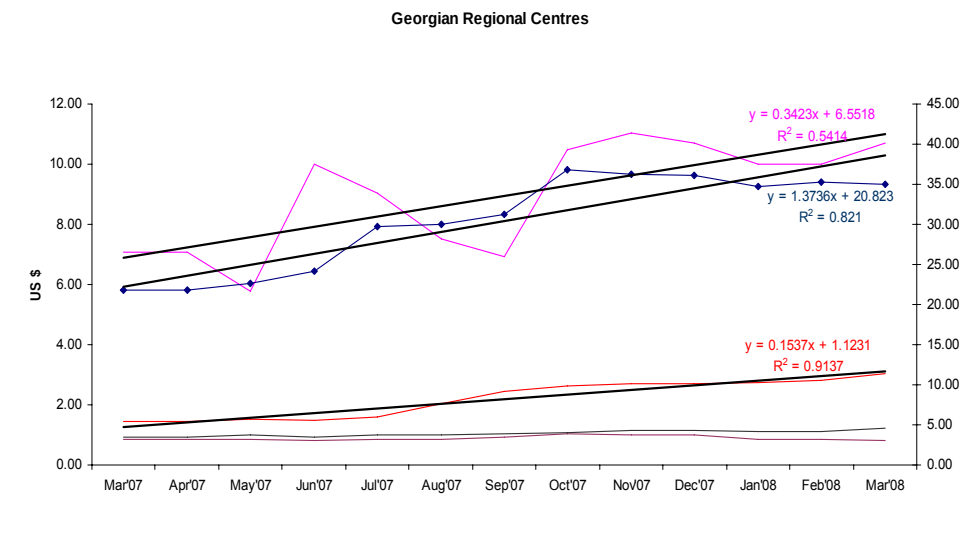
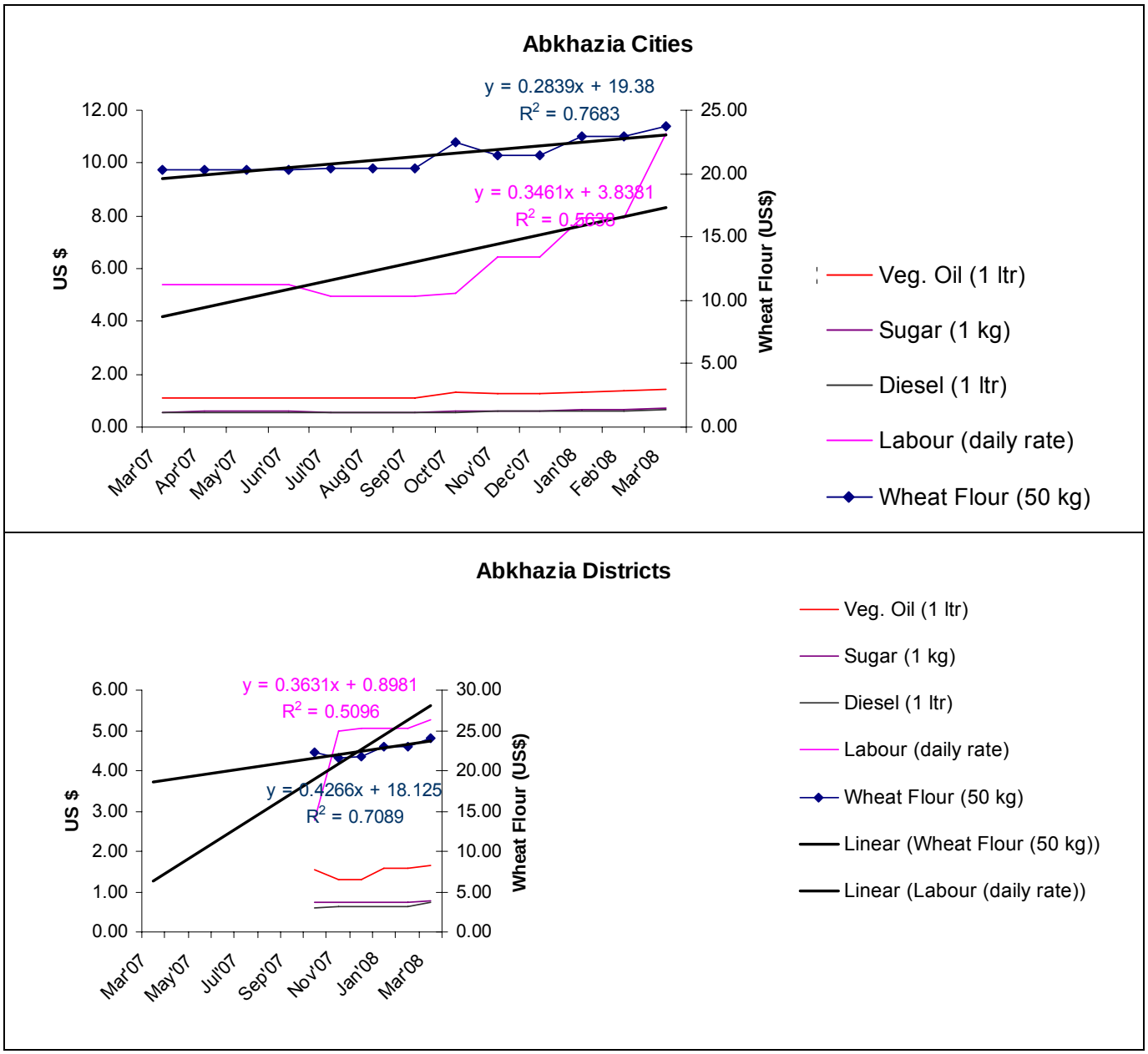


Figure 9. Market Prices, Abkhazia



The regression equations for wheat flour in Georgia have steeper slopes to the wage labour depicting a slightly faster rate of increase. This is due to the high price of wheat flour in October 2007, which was followed by a fall in price as the new harvest arrived on the market. The data suggest a strong relationship between the price of wheat flour and wage labour with a correlation coefficient of 0.912.

In Abkhazia cities and districts, prices other than wheat flour (30% lower)[102], are similar to all markets in Georgia, and have increased in 2007 and in the first quarter of 2008. The rates of increase are slower except for

[102] Possibly, effect of role of Russian Federation in wheat flour supply.

surges in wage labour rates in the districts (Nov 2007) and the cities (March 2008) which brought the daily rate of the latter in line with the Georgian average rate in the cities. In the Abkhazia districts, a 50% poorer wage labour rate than in all other samples, is noted.
Relevant data are included in local currencies, with units, in Annex 3.

The level of market integration within Georgian market summaries and Abkhazia; and between Georgian and Abkhazia markets is discussed in the Conclusion section 5.2.1 and the correlation coefficients are presented in Tables 25, 26, and 27.

4.2.7 Social Support

As an ex- member of the USSR, Georgia's social support system retains some vestige of the previous structure, although local authorities and employers and employees are expected to contribute to pensions and with supplementary benefits out of their own budgets. The State Budget for Social Security 2008 is 850 million US $ showing a 75% increase in net allocation over the actual budget in 2006. By the same token, the minimum monthly pension from all/any sources is noted to be 100 US $ per month for 2008. Table 18 shows the different types of support, however, actual values for 2008 are not available for most items.

Table 18. Social Support (Feb 2008)

Pensions	**Allowances**	**Payments**
Disability: Regular monthly payments to disabled and invalids. Amount varies according to degree of disability Old age; Old age pension for all population->65 years man;>60 women. Minimum 100 US $/month Social; Families with no other means of support. Single persons with no other means of support.	Children; Monthly allowance for all children plementary benefits: Via local authorities and companies.	Maternity; One off payment for each child 694 US $

* Increased from 16 years in 2008

Pensioners and allowances are disbursed to 1.05 million people, 23.8 % of the population.

The delivery of the increased pensions and allowances is presently undergoing change for the better with regard to the elimination of inefficiency, favouritism, graft and corruption within the system, by offering access through the People's Bank using credit card ATMs.
The foregoing notwithstanding, Georgia is placed in the middle rank countries in the UN Human Development Indicators list.

4. 3 Armenia

4.3.1 General

Armenia is a land-locked country located, as is shown in Figure 1, in the South Caucasus bordering Georgia to the north, Iran to the south, and with closed borders with Turkey to the west and Azerbaijan to the east and south-west (Naxcivan), existing under the conditions of a post-war cease-fire. Although the cease-fire has held since 1994, the 20-year-old conflict with Azerbaijan over Nagorno-Karabakh has not been resolved and 230,000 Armenians from other parts of Azerbaijan have returned to Armenia and remained there or moved elsewhere as refugees. Because of Armenia's dependence on outside supplies of energy and most raw materials, closure of both the Azerbaijani and Turkish borders resulting from the war, has prevented Armenia from realizing its full economic potential.

Population estimates vary. The official state statistics [103] recognise a population of 3.22 million people of whom 64.2 % live in urban areas and 35.8% are in rural areas.

4.3.2 Macro–Economy

Up until independence in 1991, Armenia's economy was based largely on an industry manufacturing raw materials from other parts of the Soviet Union to produce chemicals, electronic products, machinery, processed food, synthetic rubber and textiles. These factories guaranteed full employment and provided some 80% of the GDP with agriculture providing most of the remainder. In 1992-93, GDP fell nearly 60% from its 1989 level as the centrally planned economy and the former Soviet trading networks broke-down. Furthermore, the effects of the 1988 earthquake, which killed more than 25,000 people and made 500,000 homeless, simultaneously increased the Armenian dependency on the USSR, thereby exacerbating the effects of withdrawal from the command economy. The national currency, the dram, suffered hyperinflation for the first few years after its introduction in 1993 not reaching stability until 1998. Since 2003, it has been appreciating against the US dollar.

[103] Socio-Economic Indicators, NSS,Yerevan (2007).

The structure of Armenia's economy has changed substantially since 1991, with sectors such as construction and services replacing agriculture and industry as the main contributors to economic growth. The diamond processing industry, which was one of the leading export sectors in 2000-2004 and also a major recipient of foreign investment, faced a dramatic decrease in output since 2005 due to raw material supply problems with Russia and overall decline in international diamond markets. However, after that down turn, the construction sector has taken off, fuelled by an ambitious government-backed construction project in the capital, and remittances from Armenians living in Russia and the United States, a weakening dollar, and gradual increase in the productivity of Armenian industry.

The National Statistics Service (2007) shows a *real* US $ value GDP increasing year-by-year to 8.84 billion US $ in 2007 from 2.69 billion US $ in 2003; this being equivalent to an increase from 875 US $ to 2,845 US $ per head of population. At the same time, average nominal wage has increased c 4 fold from 59 to 225 US $ per month; percentage of people in poverty has been reduced from 56% in 1999 to 29% in 2005. However, inflation is now being officially recorded as having doubled in the last year, albeit from a level noted to be lower than neighbouring countries, as indicated in Table 19 [104].

Table 19. Armenia: Macro –Economic Indicators

Indicator	2002	2003	2004	2005	2006	2007
GDP growth	10.6%	11.2%	12.7%	9.0%	13.9%	13.4%
Poverty	c.50%	n/a	n/a	29.0%	n/a	n/a
Inflation	n/a	4.7%	7.0%	0.6%%	2.9%	6.4%

The drivers for all the growth noted above have been private foreign direct investment, minerals, processing of diamonds, construction and significant supporting loans from global financial institutions (World Bank, IMF, EBRD).

Without energy reserves of its own or being strategically located to offer transit facilities for gas/oil to the west (until the border with Turkey is open and peace is restored with Azerbaijan), Armenia has cut a deal with Iran to supply gas, reducing its dependency on Russian supplies. Other industrial activities connect to mining (copper, bauxite, pig iron), quarrying, manufacturing, construction, services and agriculture. The contribution to employment of minerals and manufacturing is minor at 17.2% compared to 36.4% in services and 42.6% in agriculture

[104] UNDP (2007) RC's Annual Report, Baku, Azerbaijan

(employed). Although the official unemployed figures are low at 7.2 %, *non-employment*, that is unregistered unemployment, is high at 44%. In the rural areas these workers are making significant contributions to the household food economies through subsistence and near subsistence agricultural sub-sector in areas of higher rainfall and where the irrigation schemes are functioning. Such work is, more often than not, ignored in livelihoods analyses that are analysed solely on cash-income contributions and, therefore, cause rural standards of living to be underestimated.

4.3.3 Agricultural Sector

Agriculture accounted for 20% of GDP in 1990/1 under collectives and state farms integrated into the command economy of the USSR, at a time when the bulk of the GDP was provided by industry. 18 years further on, the percentage contribution to the GDP is approximately the same, but from a very different source and in a very different manner.
The agriculture sector followed the pattern of all countries of the Soviet Union after break-up, namely collapse of centrally-managed collectives and state farms, bottoming-out of production and recovery.

In Armenia's case, the reorganisation was swift and effective with the sector reshaped by the privatisation of 1.69 million ha (600 holdings) to 1.3 million private holdings by 1993/4. Since the event, private sales and land leasing have changed the distribution through a consolidation process, addressing, in part, the dislocation that occurred within the parcels as fields were fragmented to ensure that each family received allocations of different types of land and associated enterprises.

The price of land per hectare varies from 200-3000 U$ $ depending on quality and irrigation access. Renting/ share cropping has no overall pattern but may be in the order of the value of 10% of the product, therefore, the charge for one ha used for rainfed wheat growing would be 2-2.5 bags (200-250 kg).

Some 340,000 household farms[105] now exist as functioning farms, with an average size of 2-3 ha. In addition, several large scale arable units of 100-500 ha and one 2000 ha unit in the mountain grazing area have emerged. Regarding grazing, allocations of 1 or 2 ha per family in areas where arable farming is impossible, was clearly no substitution for employment in the factories. Consequently, in the mountain and piedmont communities involved, severe hardship and migration followed.

[105] Head Agro-Stats Dept, National Statistics Service, Yerevan (2008), Personal Communication

In theory, out of nationally available arable land estimated at 0.580 million ha, 0.289 million ha (50%) were irrigable under the irrigation systems inherited by the government at the break-up of the Soviet Union. At that time (1988/9) grain production was in the order of 375,000 tonnes falling to 200,000 tonnes within the first year when technical, input and financial support was withdrawn. By 2002 only 190,000 ha were being irrigated by some 60% of the household farmers.

Table 20 shows fairly steady planting patterns for most crops except wheat area which has fallen each year in the past two years because of poor returns, a trend likely to be reversed in 2008 given the much better prices and no income taxes payable on agricultural products until 2009.

Table 20. Estimated Crop Areas[106]

Field crop areas '000s ha

Crop	2003	2004	2005	2006	2007
wheat	127.9	128.7	132.0	107.7	99.2
other grains	72.9	78.1	77.6	74.7	76.9
potatoes	32.3	35.7	34.4	33.0	31.7
veg	23.1	22.3	22.5	24.4	25.6
melons	4.1	4	3.9	4.0	5.9
Orc-vin	38.7	49.6	49.8	51.1	53.9
Total	299.0	318.4	320.2	294.9	293.2

Mission corrected data

No fodder crops included, of which the mot important is alfalfa.

Land occupancy was recorded during transects driven by the Mission north to south from the Georgian border through the provinces (*marz)* of Lori and Shirak where a series of meetings were held in Vanadzor and Gyumru. The transects confirmed the agricultural nature of the 2 marz and widespread ploughing for spring crops.

The agricultural sector in Armenia now encompasses:

- 1.39 million ha of farm land farmed by:
  - 300,000 household plots with an average size 2.5 ha;
  - 200 larger units (farms) through amalgamation/sharecropping;
  - At least one large farm of 2000ha;
- State enterprises and research institutes.

A summary of the current farming profile is given in Table 21.

[106] Food Security and Poverty, (2008) Socio- Economic Indicators, Yerevan

Table 21. Armenia Farming Profile 2008[107]

Item	Numbers	Households	Area/Unit ha	Total Arable land ha	Main crops	Estimated cereal product t
Arable area	Republic		-	1.39 million ha	-	Pre 1990 cereals 0.354 million
Pop 2008	3.2 million	0.8 million				-
Households farming	300,000	c.37%	2.5 back yard gardens	750,000 ha (100,000 ha cereals)	Cereals. Alfalfa Pots, Veg Fruits maize fruit, oilseeds	300,000t cereals
State Farmland	n/a	-		106,000 ha	Seed Multiply Research farms All crops	
Ag Ent	<200		200 ha av.	40 000ha (20,000ha cereals)	Wheat, barley maize. Oilseeds, alfalfa	50,000 cereals
Cereals 2008					cereals	**0.35 million t**

The production estimated above assumes an average yield of 2.5 t per ha derived from average estimates of harvests of c 2.0 t ha from mostly rainfed cereals and 3.0 t from areas with variable irrigation frequencies.[108]

Support to agriculture has been limited to a few externally funded projects aimed at easing the path to privatisation, improving/ refurbishing irrigation networks, food safety projects and animal disease risk containment programmes (avian influenza, swine fever, foot and mouth disease, brucellosis) all of which are part of regional FAO programmes.

Government support extends to subsidising 20% of the fertiliser used. This is sold at the pegged price of 11 US $ per 50 kg (220 US $ per tonne) and changes hands on the black market at 20 US $ (400 US $

[107] Mission findings and reviews.
[108] Yields are likely to be higher. There is a need for locally organised rapid assessments at harvest time to determine actual yields for all cereals.

per tonne) a bag with other imported fertilisers. Government recorded supply in 2007 was 11,414 t of which 9000 t is ammonium nitrate imported from Georgia. In May 2007 ammonium nitrate prices were in the order 312 US $ per tonne. Current prices in Russia put ammonia based fertilisers at 440 US $ per tonne *fob*. May 2008 prices have risen to 614 US $ in the UK from 320 US $ per tonne a year ago.

In the past 2 years there has been a resurgence of interest in farmer credit. After a false start, with low interest credit schemes proving to be unsustainable, a new agency, the Farm Credit Agency with USAID backing has emerged again offering 12% loans. This challenges the surviving credit agencies such as FINCA, whose commercial loans have interest rates of 22.5% and are not taken up because of such high interest rates. Mention was also made by USAID (2008) of incentives of 100 US $ per ha being available to farmers for spring planting of maize but the Mission was unable to confirm the information.

4.3.4 Outline Cereal balance

Given the information available, it is only possible to prepare an *outline* general cereal balance determined on the premise that conditions remain similar to 2007 with regard to rainfall and pests to identify the probable import requirement.
Assuming the following criteria
Stocks: no change in household, trader or mill stocks; mill stocks currently estimated at 100,000 tonnes[109].
Consumption: standard consumption of 155.3 kg/ head/annum (wheat) for 3.2 million people [110]
Animal feed: 150,000 t [111] 300,000 cows and 150,000 sows
Seeds: 46,250 t: 350 kg per ha wheat for 110,000 ha; 250 kg barley/ ha- 50,000 ha; 30 kg maize- 25,000 ha.[112]
Losses: 25,000 t post harvest in on-farm stores.
Alcohol/industry production: zero

Using the following formula in *000's* tonnes
1. Domestic Requirement = Domestic Availability plus Imports
2. Import Requirement = Domestic Requirement – Domestic Availability
3. Import Requirement= (Food + Feed + Seeds + Losses + Industry)– Production 2008
4. Import Requirement = (497 + 150 + 46 + 25)- 375
5. 343 = 718 -375.
6. Import Requirement for 2008/9 marketing year is predicted to be 343,000 t. Import requirement is estimated next year by the Mission at

[109] Socio-Econ Indicators, Food Balances, NACE 2005 and 2004, Yerevan
[110] To this is added c 71 kg of potatoes per head per annum; (*ibid*)
[111] Mission figure extrapolated from *(ibid)*
[112] Mission figures

343,000 t of wheat. Grain and grain imports[113] over the past two year have been 421,000 t (2007) and 305,000t (2006)

4.3.5 Market Supply Chains

Market and prices information was obtained from the WFP office, from Socio-Economic Indicators, National Statistics Office-Yerevan, NGO key informant interviews, National Bank, credit organisations, flour mills of different sizes and from Mission visits to two markets.
Given Armenia's land-locked position and closed borders with Azerbaijan and Turkey, supply chains are reduced. Supply of wheat flour to the regular markets in towns and cities comes from the following routes:

- Direct entry supply chains exist only through Georgia or with Iran.
  - 95% imported wheat arrives either by ship to Poti, or by road/ rail from Dagestan and Stavropol in the Russian Federation via Georgia. The larger mills buy continuously keeping 3 months stock in hand (100,000 t)[114].
  - 5% imported wheat arrives from Kazakhstan via Georgia, presumably imported via Baku.
  - Local millers buy locally produced wheat through collection and delivery.
  - Traders importing sell directly to big millers or to wholesalers for sale to the small mills.
  - Millers sell the flour in 50 kg sacks to regular clients through pick-up by wholesalers and deliveries to supermarkets and large bakers (scroll down-rolling credit available).
  - Wheat flour of lower grades is imported from Ukraine and Russia via Georgia by traders, who sell on to wholesalers, who deliver to regular clients[115] being wholesalers (who also collect), large retailers and bakers.
  - Wheat flour is sold in 50 kg sacks by wholesalers to retailers and small bakers.
  - Stalls, shops and bakers sell flour or bread to customers.

Wheat grain prices are noted to be highly variable depending on quantities purchased, sources and contacts. For instance, the Mission found that millers in Yerevan, who purchased imported wheat at 280 US $/tonne in April 2007 are buying similar wheat at 400-450 US $ /tonne this year; whereas millers in Gyumru are buying wheat at 560- 630 US $/ tonne now, compared to 270 US $ /tonne a year ago. The same

[113] Customs (2008) Mission Personal Communication, Yerevan
[114] Manana Mill, Yerevan.
[115] Coming from smaller cities and towns to preferred millers. Buy on credit in a scroll down fashion; *ie pay for last order; and take new one.*Quantities vary.

miller is presently buying local wheat at 467 US $/tonne compared to 234 US $/ tonne last year.[116]

On top of inflation increases of wheat imports and Russian export charges of 40% noted earlier, wheat grain entering Armenia is subject to 12% import duty and 20% VAT charges. News that the Ukraine wheat (feed grains) export market is re-opening prior to the June harvest is expected to lower prices and should cause the Russian Federation to remove /lower the export tax.[117]

No reductions in sales of wheat or wheat flour were reported at any level.

Other imported commodities follow similar supply chains, without the processing. Both locally produced and imported goods are sold through established covered markets, shops and super market. Modest charges at 0.2 US $ per day for stall holders and 0.6 US $ per day for truck based vendors, as taxes, are levied daily on market traders, the charges in the markets visited have not been increased. Truck –based traders selling potatoes and vegetables are noted to come from the major growing areas near Lake Sevan travelling on regular routes through the towns, selling en-route under strictly cash terms.

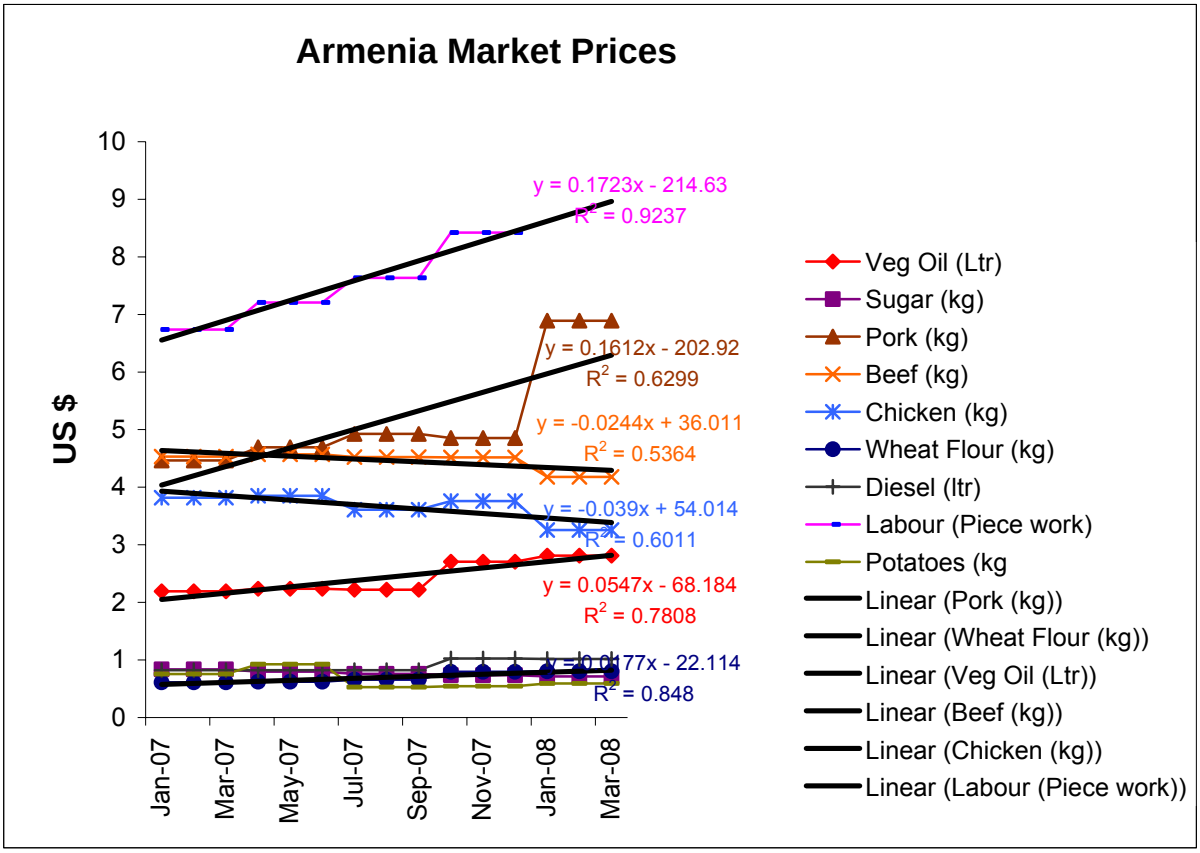
4.3.6 Market Prices

Prices provided to the Mission by WFP and extracted from the Socio Economic Indicators, National Statistics Service, Yerevan are presented below in Figure 10.

Figure 10 shows that from January 2007 until March 2008 there were similarly high rates of increase in the price of pork and wage and labour; vegetable oil and wheat flour rose but at a slower rate; diesel and potatoes remained stable; prices of beef and chicken actually fell at similar rates over the period. Wheat flour and wage labour have a strong correlation with a coefficient of 0.95.

[116] Despite all claims to the contrary the local wheat was noted by the Mission to be cleaner and had a better 1000 grain weight than the Russian import.
[117] Millers in Gyumru.

Figure 10. Market Prices US $, Armenia



Government attempts to control prices have been limited to the publication of directives advising traders to peg prices of basic commodities and to increase pensions allowances and payments.

4.3.7 Social Support

In addition to state pensions similar to the USSR system, since 1995, Armenia's social benefit allowances and payments have been based on a PAROS means test system. Originally established as an emergency programme, it is now the preferred method of analysis and is currently being up-dated with international assistance.
PAROS uses information from household surveys regarding a small number of characteristics that are easily identified and confirmed by the survey enumerators, rather than income data, to determine wealth ranking and associated entitlement to assistance.

Households who register are given a score based on social categories, housing, location, household size and income. The weighted sum is compared to the cost of the low-cost food basket and a threshold for assistance used to determine needy families.
Presently, the level of pensions and allowances remain connected to government contributions that are below the national subsistence

minimum[118] and therefore the system is under review. Table 22 shows the current types of pensions and their relationships.

Official data show that at the beginning of 2008, there were 523,000 pensioners, being 16.3% of the population. Furthermore, 137,000 families (17.1%) receive supplementary benefits in the form of social allowances. In response to price increases noted in Figure 9 from January 2007 to January 2008, disability pensions increased by 61%; old age pensions by 61%; and supplementary benefits have also been increased by 23%.

Whereas the increases have been confirmed by the Mission, the delivery may still leave a lot to be desired with regards to inefficiency, favouritism, graft and corruption within the system, to this end most payments are available through banks and through credit card ATMs.

Table 22. Armenia: Social Support

Pensions	**Allowances**	**Payments**
Disability: Regular monthly payments to disabled and invalids. Amount varies according to degree of disability Average increases from 20 to 33 US$/month Old age; Old age pension for all population- over 63 yrs. Increased 2008 from 26 to 39 US $/ month Loss of hh head; Monthly pension Veterans; Discretionary for state workers from Generals and judges to labourers Variable for persons of rank.	Children; Monthly allowance for all children.(n/a; unclear) Start school, 58 US $ one-off. Supplementary benefits: PAROS linked family benefit. Increased in 2008 from 50 to 61.4 US $/ month. Unemployment: Ex workers only, 6 months . Gas: Gas subsidy to be removed, allowance for vulnerable families.	Maternity; One off payment for third child and any others following. Increased from 585 to 877 US $/ month.

[118] Khachatryan, A (2008) Pension Reforms in Armenia, The John Smith Memorial Trust

5 Conclusions

5.1 General

Given the description of the shared experiences of the post- Soviet Union changes in Caucasus Republics visited by the Mission, it is hardly surprising that there are still many more similarities than differences with regard to the structure of the management of the Republics, the structure of the economies, the challenges faced and in prospect and the support offered to the population facing such challenges.

In general, in each Republic, the path to liberalisation of the command economy through privatisation of industry, commerce and land, mirrors the progress to the same goals made in the Russian Federation; each Republic exhibiting but on different scales according to their assets, trials, tribulations and what was once termed in the UK, *the unacceptable face of capitalism*[119] . Despite the difficult beginnings and the excesses and abuses previously noted, recovery of the macro-economies from the chaos of the early 1990s is implicit in the double digit growth of GDPs noted in Sections 2 and 3 that have led to the GDPs per capita shown below in Table 23.

Table 23 GDPs per capita 2007[120]

Russian Fed (RF)	Ingushetia (RF Republic)	Chechnya (RF-Republic)	Azerbaijan	Georgia	Armenia
9,859 US $ whole	193 US $ Partial oil only +construction +services +agriculture + remittances +social support	1,600 US $ Partial oil only +construction +services +agriculture +remittances +social support	2,347 US $ whole	2,065 US $ whole	2,845 US $ whole

The asymmetry in the macro-economies within the North Caucasus is addressed by heavy subsidies from the Russian Federation budget, which supports the bulk of the operational budgets in all North Caucasus Republics including the two in this review. As with other Republics in the

[119] Heath, E (1973) Referring to exploitation, tax avoidance and monopolies, UK Prime Minister.
[120] Mission calculated

cluster, each pursues its own development programme with no horizontal integration at this time. Regarding food prices in the North Caucasus Republics, the effect of the Russian Federation overrides most differences that might have occurred as shown by the high level of market integration among the 8 markets investigated (Figures 5 and 6) insomuch as all correlation coefficients in all markets monitored by WFP are very similar with two exceptions, between Republic market integration is far less for sugar and diesel prices as Chechnya prices have decreased. Regarding other price differences *per se* although the re-vitalisation of Chechnya is so recent, there is an apparent local trickle–down effect of the oil wealth through the rate of increase of wage labour in Chechnya compared to Ingushetia.

Regarding the South Caucasus countries, all have GDPs that have grown in double figures in recent years, since the nadir of post-Soviet chaos. A new GDP hierarchy has evolved in which Armenia is presently leading, courtesy of external support from the west and the Russian Federation. Azerbaijan's oil wealth will soon cause the lead to change as an economy based on inward investment and also with 2/3 closed borders (Armenia) with its highly productive neighbours, is very unlikely to be able to compete with an economy growing on the exploitation of substantial untapped reserves of gas and oil.

Section 1 presents the priority concerns of the WFP Regional Office, Cairo as follows:

BOX 1- Prioritised Concerns. (March 2008)

Baseline data on food price increases
In-country food stocks & availability for emergencies
Government policy measures related to food price increases
(export quotas/taxes – internal price controls, increase in subsidies)
Government safety nets.
Organisations involved in collecting information on food prices/food security/social situation.
Market indicators to monitor.
Impact of price increases/production shortages/government policies the vulnerable segments of the population.
Opportunities for local purchase for WFP.

The Mission conclusions are, therefore, presented in the form of progress made on addressing the concerns.

5.2 Priority Concerns

5.2.1 Baseline data on food price increases

Food, diesel fuel and wage labour price increases are presented in the market situation analyses for each Republic in a series of graphs with simple statistical analyses for most of 2007 and for the first quarter of 2008. As neither time nor resources were available for the Mission itself to mount market surveys, the data have been collected from secondary sources. A variety of sources have been used including average market data from official sources[121]; WFP original market data from Ingushetia, Chechnya; and WFP summarised market data from Georgia, Azerbaijan and Armenia.

Regarding Ingushetia and Chechnya; the price data allow analyses within and between the two Republics for 3 and 5 markets respectively. As Figures 5 and 6 show clearly that the markets within the two Republics are nearly completely integrated. Table 24 presents the correlation coefficients in a contingency table format for each market in sets of six commodities.

Given that 1.0 is perfect correlation, the within Republic coefficients suggest that the only slightly less than perfect/ near perfect integration connects to diesel fuel and sugar in Chechnya.

[121] As such had already been processed and summarised for inclusion in the national statistics collections in Azerbaijan, Georgia and Armenia;

Table 24 Correlation Coefficients (Ingushetia and Chechnya)

Ingushetia						Chechnya					Ing-Che	
	Wheat Flour											Ing- Che
	Na	Sl	Ma		Gr	Ve	Sh	Ac	Zn			
Na		1.00	0.98	Gr		0.98	0.98	0.96	0.98			
Sl	1.00		0.99	Ve	0.98		0.93	0.98	0.97	Wh Flo		
Ma	0.98	0.99		Sh	0.98	0.93		0.90	0.94	0.96		
				Ac	0.96	0.98	0.90		0.98			
				Zn	0.98	0.97	0.94	0.98				
	Labour											
	Na	Sl	Ma		Gr	Ve	Sh	Ac	Zn			
Na		1.00	1.00	Gr		1.00	1.00	1.00	1.00			
Sl	1.00		1.00	Ve	1.00		1.00	1.00	1.00	Labour		
Ma	1.00	1.00		Sh	1.00	1.00		1.00	1.00	0.99		
				Ac	1.00	1.00	1.00		1.00			
				Zn	1.00	1.00	1.00	1.00				
	Veg oil											
	Na	Sl	Ma		Gr	Ve	Sh	Ac	Zn			
Na		1.00	0.98	Gr		0.98	0.97	0.96	0.99			
Sl	1.00		0.99	Ve	0.98		0.98	0.97	0.98	Veg. Oil		
Ma	0.98	0.99		Sh	0.97	0.98		0.95	0.98	0.85		
				Ac	0.96	0.97	0.95		0.95			
				Zn	0.99	0.98	0.98	0.95				
	Beef											
	Na	Sl	Ma		Gr	Ve	Sh	Ac	Zn			
Na		1.00	1.00	Gr		0.98	0.98	0.96	0.98			
Sl	1.00		1.00	Ve	0.98		0.93	0.98	0.97	Beef		
Ma	1.00	1.00		Sh	0.98	0.93		0.90	0.94	0.99		
				Ac	0.96	0.98	0.90		0.98			
				Zn	0.98	0.97	0.94	0.98				
	Sugar											
	Na	Sl	Ma		Gr	Ve	Sh	Ac	Zn			
Na		1.00	1.00	Gr		1.00	1.00	0.83	0.97			
Sl	1.00		1.00	Ve	1.00		1.00	0.83	0.97	Sugar		
Ma	1.00	1.00		Sh	1.00	1.00		0.83	0.97	0.51		
				Ac	0.83	0.83	0.83		0.94			
				Zn	0.97	0.97	0.97	0.94				
	Diesel											
	Na	Sl	Ma		Gr	Ve	Sh	Ac	Zn			
Na		1.00	1.00	Gr		1.00	0.83	1.00	1.00			
Sl	1.00		1.00	Ve	1.00		0.83	1.00	1.00	Diesel		
Ma	1.00	1.00		Sh	0.83	0.83		0.83	1.00	0.45		
				Ac	1.00	1.00	0.83		1.00			
				Zn	1.00	1.00	0.83	1.00				

Between Republic comparisons show similarly-

- very close integration for wheat flour, beef and labour;

- a less close correlation for vegetable oil (different sources);
- and a much reduced level of market integration for diesel and sugar,

Diesel and sugar prices in Ingushetia are much higher than in Chechnya after a significant drop in the price of both in Chechnya in early 2008, as noted in Figure 10.

Regarding the South Caucasus Republics, the price data from Georgia are summaries of WFP data collected in cities, districts and regional centres in Georgia and cities and districts in Abkhazia. These data are given in Figures 8 and 9. The data allow correlation analyses for five indicators *viz*- wheat flour, vegetable oil, sugar, diesel and wage labour over the period from March 2007 until March 2008. Tables 25 presents correlation coefficients for each commodity indicating that near perfect correlation exists for wheat flour, vegetable oil and diesel in Georgia *per se.* However; a) there is far less market integration for sugar; b) wage labour rates in Georgian cities on the one hand and Georgian districts and regional centres on the other hand, are unrelated, with city rates 50- 90% higher than the district rates, according to the month. Wage labour rates in the regional centre fall somewhere in between, perpetuating the on-going lure of the urban conglomerate for rural labourers.

Table 25 Correlation coefficients of Georgia Market Prices

Wheat Flour (50 kg)				Veg. Oil (1 ltr)			
	Cities	Districts	Regional Centers		Cities	Districts	Regional Centers
Cities		0.98	0.97	Cities		0.99	0.99
Districts	0.98		0.98	Districts	0.99		0.98
Regional Centers	0.97	0.98		Regional Centers	0.99	0.98	
Sugar (1kg)				Labour (daily rate)			
	Cities	Districts	Regional Centers		Cities	Districts	Regional Centers
Cities		0.67	0.81	Cities		0.20	0.16
Districts	0.67		0.88	Districts	0.20		0.88
Regional Centers	0.81	0.88		Regional Centers	0.16	0.88	
Diesel (1 ltr)							
	Cities	Districts	Regional Centers				
Cities		0.96	0.96				
Districts	0.96		0.99				
Regional Centers	0.96	0.99					

Regarding Abkhazia, Table 26 shows the correlation coefficients between price data from cities and districts. The data exhibit a similar closeness of fit for wheat flour and vegetable oil to Georgia. Diesel and sugar are less connected. However, although wage labour rates are more closely linked than in Georgia, the city daily labour rates are again double the rates in the districts.

Table 26 Correlation coefficients of Abkhazia Markets.

Commodity	Cities - Districts
Wheat Flour (50 kg)	0.98
Veg. Oil (1 ltr)	0.92
Sugar (1 kg)	0.71
Diesel (1 ltr)	0.65
Wage labour	0.65

Table 27 indicates the degree of market integration between the two locations. Although there are some medium levels of correlation for diesel, wheat flour and labour, no clear overall patterns emerge for any commodity except vegetable oil, reflecting the isolation of Abkhazia markets and the influence of other factors, presumably the effect of support from Russian Federation.

Table 27 Correlation coefficients of Abkhazia against Georgia markets

Wheat Flour			Veg Oil		
	G Cities	G Districts		G Cities	G Districts
A Cities	0.637101	0.710668	A Cities	0.932472	0.935161
A Districts	0.715288	-0.07586	A Districts	0.758409	0.349504
Sugar			**Diesel**		
	G Cities	G Districts		G Cities	G Districts
A Cities	-0.7044	-0.0366	A Cities	0.773695	0.879188
A Districts	-0.76457	-0.75386	A Districts	0.826637	0.74388
Labour					
	G Cities	G Districts			
A Cities	0.575439	0.629022			
A Districts	0.569992	-0.13441			

Regarding Azerbaijan and Armenia, between Republic market relationships and relationships with Georgia are included as correlation coefficients in Table 28 for five key commodities.

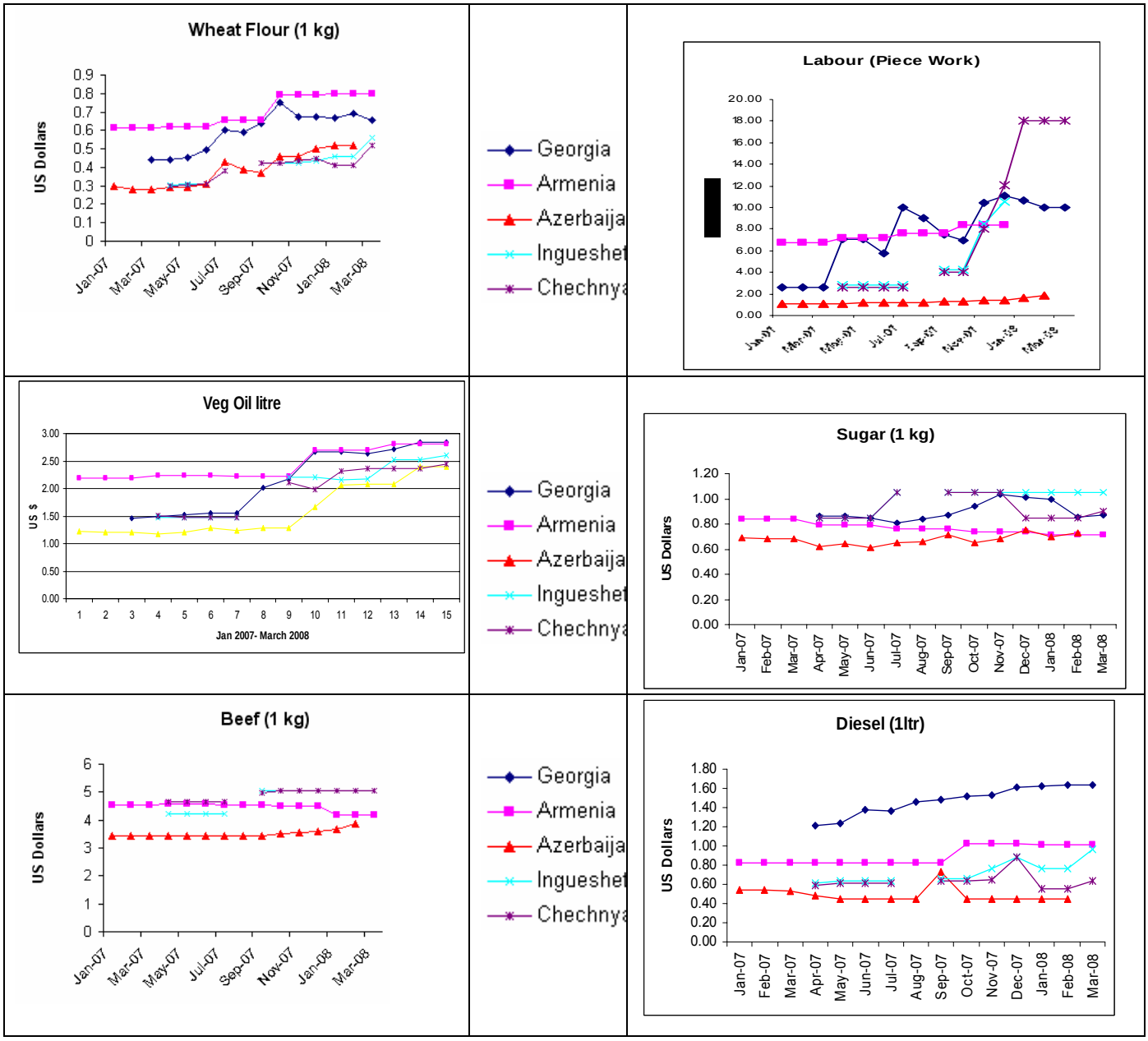
Table 28 South Caucasus Market Price Correlation Coefficients.

	Wheat Flour				**Veg. Oil**		
	Georgia	Armenia	Azerbaijan		Georgia	Armenia	Azerbaijan
Georgia		0.88	0.91	Georgia		0.94	0.92
Armenia	0.88		0.94	Armenia	0.94		0.96
Azerbaijan	0.91	0.94		Azerbaijan	0.92	0.96	
	Diesel				**Sugar**		
	Georgia	Armenia	Azerbaijan		Georgia	Armenia	Azerbaijan
Georgia		0.82	-0.01	Georgia		0.11	0.10
Armenia	0.82		-0.40	Armenia	0.11		-0.38
Azerbaijan	-0.01	-0.40		Azerbaijan	0.10	-0.38	
	Labour						
	Georgia	Armenia	Azerbaijan				
Georgia		1.00	0.96				
Armenia	1.00		0.97				
Azerbaijan	0.96	0.97					

Almost perfect correlations exist for wage labour rates; and very close correlations exist between all Republics for vegetable oil and wheat flour, however, relationships between each country evaporate regarding the integration of market prices of diesel and sugar.

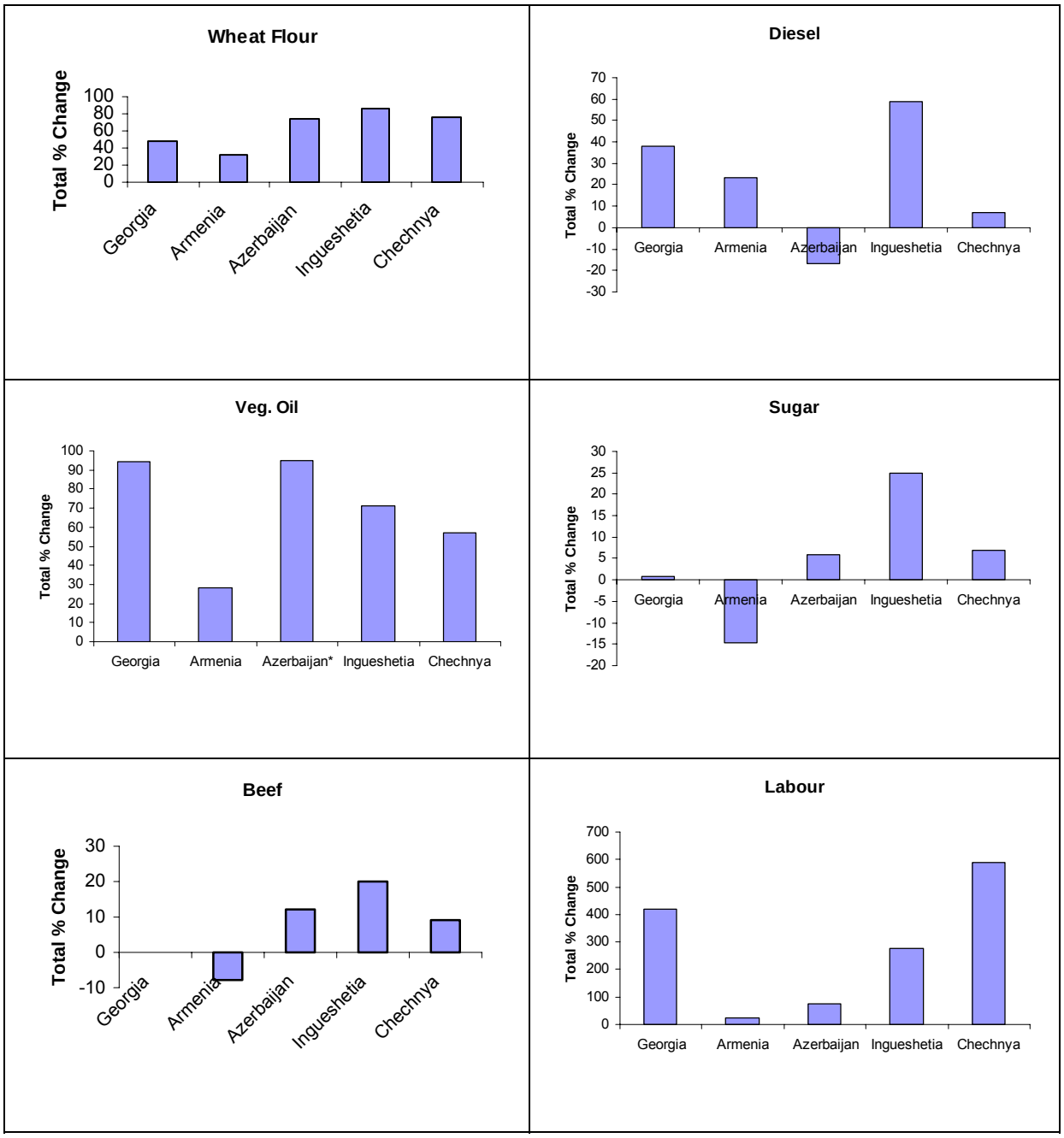
A clearer picture of prices within the sub-region emerges by looking at the actual prices and percentage changes of commodities between the three South Caucasus countries juxtaposed with the two North Caucasus Republics. Figure 11 draws together the monthly average prices in US $ values for 6 indicators.

Figure11. Prices changes in US $ Jan 2007- March 2008



Percentage changes over similar periods for the same commodities are shown in Figure 12.

Figure12. Percentage Changes of Commodity Prices Jan 2007 to March 08



By combining Figure 11 and Figure 12, it can be seen that from March 2007 to March 2008:

- Armenia prices have increased least, but, for the most part, were higher at the outset.
- The price of wheat flour rose in all countries by 40%-80%.
- Azerbaijan flour prices are closest to Russian Federation.
- Vegetable oil prices appear to be converging, involving 60% to 90% increases in all Republics except Armenia where prices were already high.

- Sugar prices show no apparent pattern.
- Labour rates increased dramatically in Ingushetia and Chechnya.
- Labour rates have also increased in South Caucasus States, nearly doubling in Georgia (Regional Centres values used).
- Azerbaijan labour rate is based on nominal monthly rates not daily labour rates, so appears lower than the other Republics probably due to this sampling difference.
- Diesel prices have increased from 5% to 80% being less in the main oil producing states and have actually decreased in Azerbaijan.
- Georgia diesel prices are higher but have not risen in 2008, possibly benefiting from the supply from Azerbaijan refinery.

All prices are presented in Annex 3.

5.2.2 In-country food stocks & availability for emergencies[122]

With the exception of the Russian Federation's EMERCOM which covers *inter alia* Ingushetia and Chechnya, the Mission could discern no other body designated with the sole responsibility for the consolidation, control and condition of emergency grain (wheat) stocks let alone other commodities in any of the countries visited. Furthermore, all wheat stocks in all the other countries visited by the Mission, which are all net grain importers, were said, by the relevant key informants, to be held by millers as part of their commercial ventures, As such they are subject to commercial forces and considered to be commercial secrets. No strategic grain stocks, designated as such, apparently exist in any other country visited.

The statistics departments within Ministries of Economic Development and/or Agriculture include *stocks* in the annual food balances indicating draw-downs or increases as appropriate but no-one is able to identify the sources of the data used anymore than anyone is able to identify the sources of some other parameters (animal feed use; losses; other uses) regularly incorporated into such balances. The data used are theoretical constructs that do not withstand critical examination. While *per capita* consumption is often subject to debate, study, and review by WFP and other agencies, the other components are left unchallenged. External missions (*e.g.* CFSAMs) held during emergencies, view such parameters of the food balance as being too difficult to determine in the short time available, therefore the theoretical data presented are in variably confirmed, by their inclusion, as facts and so are perpetuated from year-to-year. Under non- emergency conditions, few donors are interested in supporting the development of data collection

[122] Wheat/ wheat flour, this concern has been addressed using wheat and wheat flour as the sample commodity as all countries are net importers and the supply chains are understood from information gained.

methodologies for field/ farm/ home- based data[123]. The reality is that following a) post –Soviet downsizing and the removal of *big* government and b) IMF- style structural adjustments, the ministries no longer have the skilled manpower or other resources in the field to collect and analyse such information even if they had the will so to do.

FAO / EU support programmes to ministries' information services that concentrate on the structure of sample surveys, data analyses and presentation miss the crucial point that data received need to be verified by field observation and measurement. The Mission feels that no current surveys present accurate or realistic data on production and on-farm stocks as all sample surveys and aggregating data collections are based on *hearsay* not measurements/ observations.

Furthermore, as all data collections have previously[124] been linked to tax or possible commandeering inquiries, it is not surprising that returns showing crop yields, both verbal and written, from good loamy land with adequate rainfall or supplementary irrigation, throughout the cluster of countries visited[125], are being recorded and *accepted* at levels that are exceeded by rainfed plots in the semi-arid areas of Ethiopia.

Regarding stocks for the coming year, the above notwithstanding, the current situation as presented is given below in Table 29.

[123] The irony is that presently millions of dollars are being spent by donors on developing remote sensing systems without any willingness to fund the tens of thousands of dollars on purchases of spring balances, quadrats, or production of Pictorial Evaluation Tools for extension agents- i.e. the tools of rapid assessments. (Robinson, I et al, 2005)

[124] within living memory

[125] Mission transects confirmed high quality land, good cultivation practices, high sowing rates and in most places being cultivated for cereals and potatoes- adequate water supply.

Table 29 Wheat Stocks estimates, sources and locations

Republic	National Stocks	Source	Location
Russia-1	2 million tonnes	Grain Millers' Association 04.08	3,500 mills
Russia-2	10 million tonnes wheat grain	Press release 03.08 Central Region Pres. Envoy	Central Russia, On-farm/ company silos
Russia-3	9 million tonnes[126]	Rosstat 01.08	All Russia
Ingushetia	None (no big mills)	MoA/ M Econ Dev	On-farm/hh possible
Chechnya	None (no big mills)	MoA	On-farm/ hh possible
Azerbaijan-1	760,000 tonnes	MoA, Econ Dev	All mills
Azerbaijan-2	192,000 tonnes	Sari Sunbul Mills	All mills[127]
Georgia-1	50,000 tonnes	MoA, Tbilisi	Country wide[128]
Georgia-2	140,000 tonnes	Mills, Tbilisi	All mills[129]
Armenia-1	100, 000 tonnes	National Stats. Food balances	Mills silos
Armenia-2	83,000 tonnes	Mills, Yerevan	Mills silos.

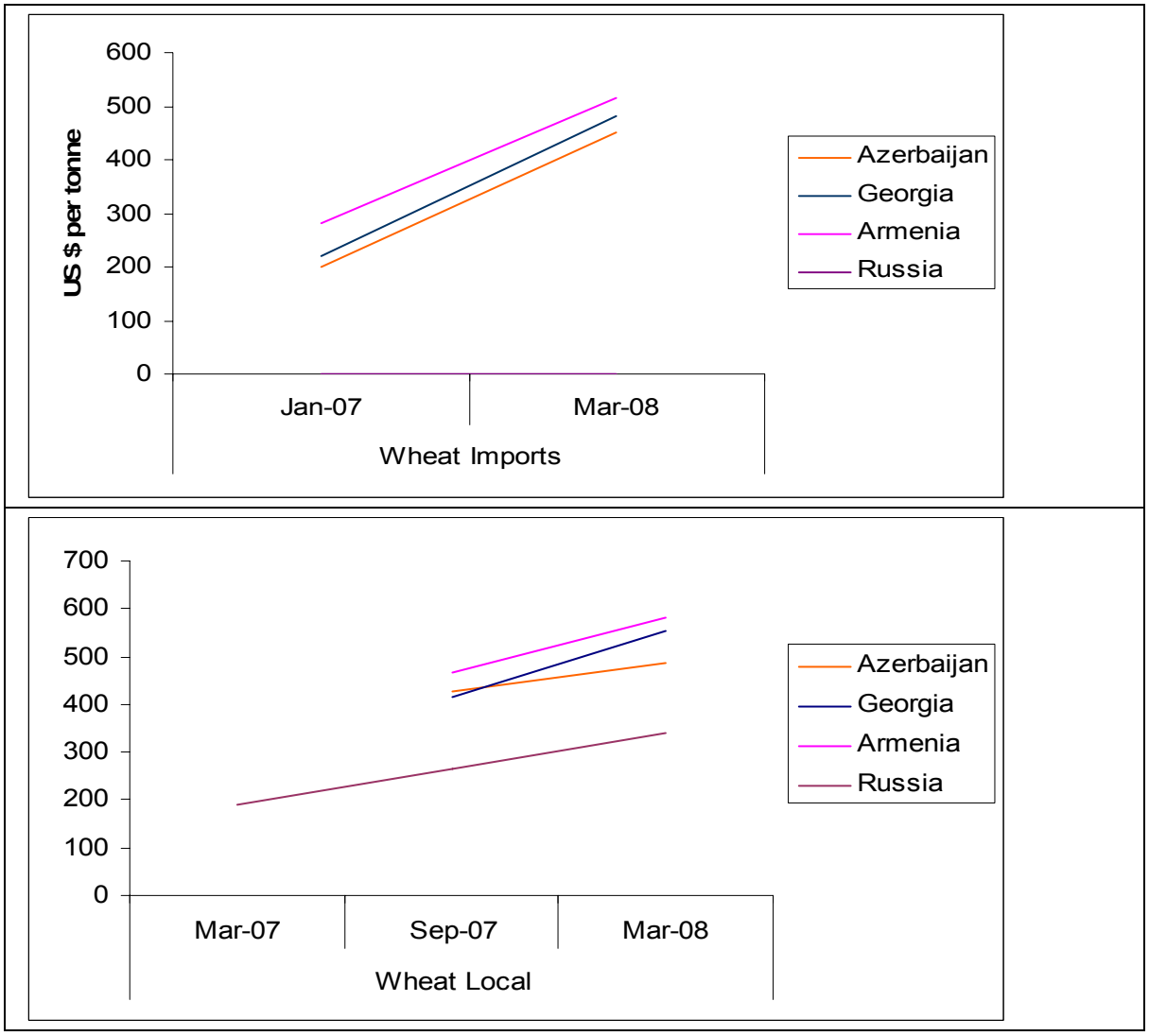
Table 29 identifies the dependence of Ingushetia and Chechnya on wheat grain stored in flour mills in surplus producing parts of the Russian Federation. Also, Georgia, if the MoA figures are taken as accurate, has less than 3 weeks stock in hand, but this does not include the on-farm/ household stocks of the highly productive PHPs throughout the country. The Georgia MoA figure suggests a *just-in-time* approach to buying by the mills. The single mill in Georgia visited by the Mission, which handled 13% of the imported wheat-mill-flour trade (5% all trade), had 8,000 t in store, which indicates forward purchase and storage as the policy adopted not *just-in-time.* The Mission were informed by the major miller that all large mills in Georgia carry 2-3 months imported wheat stocks, and, suggests that their estimate of wheat in- store nationally (Georgia -2) may be closer to the truth. Disregarding the exact tonnage, the mills all follow the pattern of buying ahead to secure their trading commitments and the banks are happy, un-fettered by sub-prime mortgage debts, to lend on the rising market.

[126] 5.4 months supply all Russian Federation (includes Ingushetia and Chechnya)
[127] Lower assessment- 3 months trading requirement
[128] Estimates by MoA advisor, it may connect to previous USDA support.
[129] 2 months supply carried by all large mills, extrapolated to include hh and smaller mills- unextrapolated ie larger mills only suggests 70,000 t.

Azerbaijan's mills are in a similar position to the larger mills in Georgia but with closer access to imports from Russia and Kazakhstan.
Armenia's larger mills follow a similar process. However, the smaller mills in Armenia may be under threat as the closed borders present more difficulties in accessing wheat and offer more opportunities for restrictive trading practices to flourish, thereby extending the monopolies that dominate import/ export markets.

A closer look at the relationships between imported wheat price and local wheat price is provided in Figure 13.

Figure13. Imported wheat and Local wheat prices, US $/ t (2007-2008)



The prices would appear to reflect ease of import with local and imported wheat prices higher in Armenia (difficult access) than in

Georgia (port access + good links with Azerbaijan); and Georgia prices higher than in Azerbaijan (good port, road and rail links). All three Republics have wholesale local wheat prices close to the price of imported Russian wheat 50-100% above the local wheat wholesale price in the Russian Federation.

Figure 13 suggests a high level of integration which is confirmed by the correlation coefficients in Table 30 indicating near perfect synchrony between the three South Caucasus Republics, each with a similar relationship with the Russian Federation (Rf).

Table 30 Wheat Stocks estimates, sources and locations

	Az	Ge	Ar	Rf	
Az			0.98	0.99	0.61
Ge		0.98		1.00	0.61
Ar		0.99	1.00		0.62
Rf		0.61	0.61	0.62	

Russia currently exports 13 million tonnes of wheat. By 2011, the Russian Federation Strategic Plan anticipates 15 million tonnes will be available for export. Mission calculations suggest this connects to a 14% area increase from 43 million ha of cereals to 49 million ha of cereals, which should be viewed against the 78 million ha of cereals that were farmed the Russian Federation in 1990[130]. Kazakhstan and Ukraine are also on record as investing in wheat production by increasing area under cultivation. Nevertheless, the amount and availability of Russian wheat for export remains a crucial component in the sub-Region's food security. Presently, the Mission judges that almost all Azerbaijan wheat imports and 95% of Armenia's wheat imports are likely to be coming from Russia. Only Georgia imports wheat in large quantities from third countries (presently 95% from Kazakhstan). Consequently all three Republics are vulnerable and Georgia more vulnerable than the other two because of strained relations with the Russian Federation increasing the dependency of Georgia on other sources with less wheat to export[131].

This level of vulnerability leads to the Mission recommendation for WFP to explore the establishment of strategic stocks of wheat in each of the three South Caucasus countries.

[130] President, Russian Union of Flour Mills and Cereal Plants (2008)
[131] Kazakhstan export closed April 19th until September 2008; Ukraine wheat (non-feed) closed, both expected to be opened in Sept 2008.

5.2.3 Government policy measures related to food price increases (export quotas/taxes – internal price controls, increase in subsidies etc.)

As determined above, wheat flour and vegetable oil are the only commodities that are exhibiting recorded retail price increases in all 5 Republics reviewed. By the same token, the supply chain for wheat flour is the only supply chain connected to sufficient information for the Mission to be able to comment with regard to this concern.

All countries under review are wheat importers, so the quantity of wheat required to meet domestic demands offers an indicator for the national level dependency in strict *deficit of wheat* terms, on external sources of supply. In order to connect the import requirement with vulnerability to wheat price increases and, therefore, to food security, it would seem that import needs should be adjusted by the both the size of the recipient population and some measure of their ability to pay. In an attempt to look at what may be termed the comparative vulnerability, an index, the comparative vulnerability index, (*cVI*) has been derived by the Mission to evaluate situation of the five Republics.

cV I[132]= Wheat Import Requirement tonnes/ Population number x GDP per head in US $

The score resulting from the calculation enables comparison of apparent vulnerability to wheat price hikes; the higher the score, the greater the vulnerability of the country concerned. A non- importing country has a zero score. A country with no GDP has an infinite score. Table 31 shows that although Azerbaijan is the greatest wheat importer in the set, the country most vulnerable from increases in imported wheat price is Ingushetia, with almost a 10x greater *cVI* than Azerbaijan. The inclusion of Ingushetia and Chechnya in this construct is to provide an interesting comparison but it should be understood that "import" in the context of North Caucasus Republics means internal movement between Republics in the Russian Federation, which is grain exporting country and has a cVI =0 as is shown in Table 31.

Table 31 Wheat Import/ Export 2008/9- Mission calculated cVI.

Russian Fed (RF)	**Ingushetia (RF)**	**Chechnya (RF)**	**Azerbaijan**	**Georgia**	**Armenia**
Exporting **13 million t**	Import 32,000 t	Import 88,500 t	Import 769,000 t	Import 737,000 t	Import 343,000 t
cVI = 0	cVI=361 (partial)	cVI=46 (partial)	cVI=38	cVI=81	cVI=36

[132] Mission construct.

The supply chain for wheat flour begins in the producer countries. In this regard, Russian, Ukraine and Kazakhstan prices and product availability become essential parameters in any mathematical function leading to household food security.

Where data are available, Box 2 contains summaries of the price changes and associated interventions in both the wheat exporting and importing countries. The effect of the 40% export tariff on Russian wheat and the ban on Ukraine wheat sales are likely to be linked to the flour price increases in importing countries. As wheat flour is not subjected to any export duty (Russia) and has no export ban imposed (Russia; Kazakhstan; Ukraine) claims that the tariffs or ban have been invoked to reduce pressure on home flour/ bread prices need to be questioned. Apart from increasing revenues through the taxes and the added values of increased sales of *commodities* not *straights* in the exporting countries, in recipient countries, the joint action of paying import taxing on the *straight* but not on the the *commodity* increases locally-produced product street price while offering cheaper imported alternatives. As the importers will not impose more taxes on food imports at this time, such actions for wheat grain (taxed) and wheat flour (untaxed) may force smaller millers, dependent on imported grain supplied through a chain involving international traders and local wholesalers, out of business as they fail to compete at street level with the imported flour.

Box 2 Price and policy relationships

Wholesale Price in US $ per tonne

Wheat	Kazakhstan	Ukraine	Russia	Azerbaijan	Georgia	Armenia
mid 2007	190	195	192	200	220	280
Mar.2008	390	340	342	450	480	515

Taxes/ action mid 2008

Wheat	Kazakhstan[1]	Ukraine	Russia	Azerbaijan	Georgia	Armenia
Export	Proposed intro. of tariff, March 08 Export ban introduced post mission-	Grain banned Flour allowed. feed grain ban lifted in May	40% grain **No** export tariff on wheat flour	-	-	-
Import	-	-	-	none	none	12%
VAT	-	-	10%	none	18%	20%

Retail Price in US $ per tonne (in 50 kg bags)

Wheat flour	Kazakhstan	Ukraine	Russia (Ingushetia And Chechnya)	Azerbaijan	Georgia	Armenia

mid 2007	-	-	300	420	500[2]	632[2]
Mar 2008	-	-	540	640	700[2]	801[2]

1. Allowed export fob 400 US$/ t to Georgia March 2008, after GoG negotiating mission
2. Includes local tax- same as wheat grain.

Regarding support to farmers, conscious of the need to boost home production, the South Caucasus countries have several initiatives noted by the Mission:

- **Azerbaijan:** the Ministry of Agriculture has embarked on support programme designed to stimulate area sown and yield of food crops. This programme includes:
  - 40 manat per ha (48.8 US$) subsidy for fuel,
  - 50% subsidy for fertiliser purchase up to 300 kg per ha.
  - 40 manat per ha (48.8 US$) incentive to plant wheat.
  - Indirect assistance is given this year (2008) by pegging the price of leasing agricultural machinery.
  - Stimulating seed multiplication by paying 100 % of cost of producing elite seeds, and, 40% and 30% of the cost of first generation and second generation seed multiplication respectively.
  - 9 banks and 21 credit funds are now working in Azerbaijan, most of the credit funds have been established recently. Such agencies offer a variety of products *viz:* short- term seasonal loans for farmers; farm enterprise loans < 30,000 US$ of longer duration; urban-based express loans for households and SME loans for processing/ trading businesses.

- **Georgia:** the Government has embarked on a 50 day programme support programme designed to stimulate area sown and yield of food crops[133].
  - 20 litre per hh farm fuel allowance (c.0.5 ha plough) 82% had been disbursed and 30% had been redeemed at the time of the Mission,
  - the distribution of 350 tractors,
  - rehabilitating 400 km of irrigation canals,
  - 12% agricultural credit for agricultural enterprises. The People's Bank offers 3 types of credit for farmers, general credit with loans up to 700,000 US $; 150,000 US $ loans for sunflower seed production (Kakeheti district)' and 30 loans at 69,000$ each for fruit and vegetable production for private companies.

[133] Fears noted are that the 50 day appellation means the support will not endure.

- FAO supported projects on going or in the pipeline connect to information systems; animal disease surveillance and protection for avian influenza, foot and mouth disease, and swine fever; food safety/ bio-tech safety capacity building; marketing capacity building and protection of wine appellations; genetic resources development for improved food security (crops and animals through AI); development of bee keeping; reintroduction of a district MoA offices.

- **Armenia:** Support to agriculture includes few externally funded projects aimed at:
- easing the path to privatisation,
- improving/ refurbishing irrigation networks,
- food safety projects,
- animal disease risk containment programmes (avian influenza, swine fever, foot and mouth disease, brucellosis) all of which are part of regional FAO programmes.
- Direct government support extends to subsidising 20% of the fertiliser used. This is sold at the pegged price of 11 US $ per 50 kg (220 US $ per tonne)
- Farm Credit Agency with USAID backing has emerged in the past year offering 12% loans.
- An incentive of 100 US $ per ha to farmers for spring planting of maize is noted but not confirmed.

5.2.4 Government safety nets.

Taking the countries in turn, beginning with the cVI most vulnerable;
i) **Ingushetia** has the highest cVI and so is the most vulnerable; but all Ingushetia's fiscal requirements are covered by the Russian Federation. The budget for all government sectors is allocated to Ingushetia from the Russian Federal budget.

- Social support is one aspect of that budget which is received by 75% of households and made up 40 % of the household cash income (2006); 3 increases in allocation have occurred in the past year.
- Wage labour (as noted by piece work charges) has increased 300% in 6 months
- Almost all families have farms (PHPs and back yards) and the farms appear to be far more productive than has been recorded.
- Remittances are another unmeasured source of income.

Emergency food stocks are not available in Ingushetia; however, the supply would be covered, as necessary, by EMERCOM. The North Ossetia EMERCOM Representative, based in Vladikavkas is of the opinion that food surpluses in Stavropol were easily in excess of any demands that may arise from the North Caucasus. Further, since the war with

Chechnya is over, all roads are open and most food grain commodities are coming from Stavropol or other regions of Russia.

ii) **Chechnya** has a much lower cVI than Ingushetia and, as in the case of Ingushetia the GDP is partial only. Even with the partial GDP, Chechnya is theoretically less vulnerable than Georgia. In addition, the oil windfall notwithstanding, 83.4% of Chechnya's present budget is obtained from the Russian Federation and only 16.6 % sourced locally. It is possible that the substantial proportion provided by the Russian Federation includes all social support pensions, allowances and supplementary benefits.

- Social support is received by 90% of households and comprised 50% of household income (2006). Pensions and allowances have been increased 3 times in 2007 and twice in the first quarter of 2008.
- Wage labour (as noted by piece work charges) has increased 500% in 6 months
- Farming connections are less strong than in Ingushetia, but urban families are linked through clan ties to farms; and the farms appear to be far more productive than has been recorded.
- Remittances are another unmeasured source of income.

Emergency food stocks are not available in Chechnya, however, as in the case of Ingushetia, the supply would be covered, as necessary, by EMERCOM. Further, since the war is over, the roads are open and most food grain commodities are coming from Stavropol or other regions of Russia.

iii) **Azerbaijan** is the country with the highest wheat import requirement but in the near future, with the growing exploitation of the new oilfields, new pipeline and western trade connections in both gas and oil will be the country in the sub-region with greatest revenue with which to pay the bills. Presently, Azerbaijan's cVI is slightly higher than Armenia but with a decreasing population and a soaring GDP connected to its own resources, this will change.
Presently;

- Social support is received by 1.533 million people some 18% of the population. Pensions and allowances have been increased by a range of 42%-57% during the past year.
- Nominal labour rates (as extracted from the Statistical Yearbook) have increased in parallel with wheat prices but are lower than all other states estimated from piece work data.
- Farming connections are not as strong in east where rainfall is less and irrigation systems are in a very poor state. However, from Mincegevir westwards, the picture changes and the farms appear to be far more productive than has been recorded.
- Remittances are another unmeasured source of income.

As the government has already removed all import duties and VAT on wheat and wheat flour, no further measures are expected other than more increases in salaries, pensions and allowances. The wheat reserves are estimated to be from 1.5 months (millers) to 6 months (MoA).Trade routes are excellent and are all open, so even at the lower stocks estimate, wheat supply to the mills are being replaced as required from Russia.

iv) **Georgia** has a cVI higher than Chechnya and is consequently apparently the most vulnerable of the South Caucasus States. The country depends on imports but is far better positioned than Armenia to import wheat flour with ports on the Black Sea and good relations with Azerbaijan and Turkey offer alternative supply chains. Social support packages are similar to the Russian Federation. Since the beginning of year programmes have been introduced that will/ are providing:

- Social support; received by 23 % of households and comprising a minimum of 50 US $ per month per pension (2008) to increase to 100 US $ per month by 2009 (850,000 pensioners).
- Social programmes; with a 30 % state budget allocation for 5 years, but allowances will have purpose-orientated targeting[134].
- Wage labour rates have increased by 40% (based on piece work rates) during 2007 in parallel with wheat prices.
- Farming connections are strong; PHPs and backyards are big and extremely productive, far more productive than has been recorded.
- Remittances are another unmeasured source of income.

The wheat reserves are estimated to be from 2 months (millers) to 2-3 weeks (MoA). Importing trade routes through Azerbaijan and across the Black Sea are currently excellent and open, so even at the lower estimate, stocks are being replaced as required; but Georgia as a major wheat importer is vulnerable especially as Kazakhstan wheat exports are banned and relations with Russia are poor.

iv) **Armenia** has the lowest cVI is apparently the least vulnerable of the South Caucasus States. However, the Mission feels that in the long term it is the most vulnerable with its GDP shored up by inward investment, no oil, no ports and is food import dependent with closed borders with its oil and resource rich neighbours. Social support packages are similar to the Russian Federation.
Official data show that at the beginning of 2008:

- Social support is received by there were 530,000 pensioners, being 16.3% of the population. Furthermore, 120,000 households (17.1%) receive supplementary benefits in the form of social allowances. Disability pensions increased by 61%; old age pensions by 61%; and supplementary benefits have also been increased by 28%.

[134] GEPLAC (2008) Georgia Economic Trends, February 2008

- Wage labour rates have increased in parallel with wheat prices increasing by 38% (piece work rates) over 2007.
- Farming connections are weaker with only 37% of households farming.
- Remittances are another unmeasured source of income.

The wheat reserves are estimated to be from 2.5 months (Nat Stats).Trade routes are complicated with direct access only through Georgia and Iran, therefore topping up stocks is a slow process, leaving Armenia vulnerable to price hikes and embargos.

5.2.5 Impact of price increases/production shortages/government policies on the vulnerable segments of the population.

Unofficial and unpublished notes from the World Bank offices obtained by the Mission in March 2008, report food price increases from January 2007 to January 2008 of 11.9% Russian Federation; 20% in Azerbaijan; 11% in Georgia and 11.5% in Armenia. The first quarter of 2008 did not necessarily herald further increases in prices in all commodities in the Republics visited. Prices of some locally produced goods actually fell following seasonal patterns; the price of meat from locally reared ruminants has not changed except for lamb in Ingushetia[135]; chicken prices in Armenia have fallen by 25%; the price of potatoes has fallen in most markets (50% in Armenia despite concerns over winter losses); and surplus fruits are available in the production areas in Armenia and Georgia. Wheat flour, the Mission's main indicator and vegetable oil, *both imported products* have, however, increased in price by percentages ranging from 40-80% (wheat flour) and 5-100% (vegetable oil)[136] in all countries, thereby increasing the price of bread and food preparation generally.

Without time or resources to conduct household surveys, with no information regarding quantities sold or even number of regular traders selling goods, the Mission may only comment on the impact of the increased prices from discussions with millers and traders with regard to their trading patterns and current business practices; and from the contemporary understanding of key informants. A consensus of the anecdotal replies is included below:

- Large flour mills are expanding, building new silos and attracting bank support. Their trade is increasing.
- Smaller mills fear losing sales of flour if they cannot compete in price with larger mills that are extending their hegemony and/or

[135] Enigma, possibly due to festival.
[136] 5% only in Georgia- local production at hh level may be reason.

with imported flour from Kazakhstan, Ukraine and Russia, albeit for the most part of a poorer standard.

- Smaller mills are losing sales of bran as prices increase, but this may be a seasonal effect as the winter is over. (Large mills seem unconcerned- charging no similar % increases in bran prices).
- Wholesalers are maintaining wheat flour sales under the *scroll – down* revolving credit terms. Traders pay for their previous order when collecting/ taking delivery of the new order, thus preserving supply route and sales.
- Market traders in wheat flour in all markets have not observed down turns in sales, despite price increases.
- Market traders in maize have noticed no reduction in sales in maize growing/ eating areas.[137]
- Market traders in animal feeds, bran and feed wheat, noted falling sales due to seasonal (end of winter feeding of ruminants) effect. They expect trade to pick up as backyard chicken production increases in summer.
- Market traders in imported wheat products report falling sales of macaroni, biscuits and cakes; but report increased sales of tea.
- Supermarkets report falling sales in small towns of imported household goods *viz*, pots, vacuum flasks, crockery and bed linen.

Whereas the prices of local produce may not actually increase, if the staple price continues to rise, sales of such goods may be expected to fall in the vulnerable groups as each household distinguishes between its own mandatory and discretionary purchases.
In Azerbaijan, the government sponsorship of *Yah Marka* – farmers' markets in the bigger cities is reducing the price of local products for the urban communities. This approach provides a model that may well be attractive to other administrations and connects to the Mission recommendation to link producer and buyer groups under a local purchase mechanism LPO 2.

So far, regarding the welfare of the most vulnerable, support systems noted in 5.2.4 have been adjusted to take into consideration the price increases noted. The increases in social support in all the countries without exception, have been assigned political connotations insomuch as they are have been connected with impending or recently held elections. No food price related demonstrations have been reported to the Mission. Time will tell if further increases to pensions, allowances and salaries will follow further staple food price increases in the coming year when the new incumbents are established in their respective offices.

[137] Ingushetia- main staple; west Georgia main cereal crop.

Mission transects throughout the visit confirmed widespread farming at field and back yard plots levels. The current food price and general inflation is a fraction of the hyper-inflation experienced in the early 1990s. Survival in the 1990s and traditionally, during all previous years of turmoil over the past century, has been linked to what are now identifiable/ registered private household farms, they are also likely to be the way through this crisis for most families. The household farms, now properly recognised provide a suitable engine for sustainable and equitable agricultural development, once the proposed large-scale agricultural model, with its associated aggregation of holdings, displacement, import of western machinery and unemployment is effectively challenged. For such changes in approach to be mooted and heard, the real production profiles of the household farms must be accurately determined and published, not dismissed or underestimated to promote either at one extreme, amalgamation and business interests[138], or at the other extreme, aid flows[139].

5.2.6 a) Organisations involved in collecting information on food prices/food security/social situation.

Presently the responsibility for the collection, analysis and presentation of agricultural, household and market data lies with the official government bodies including:

- Ingushetia- Ministry of Statistics and Economics.
- Chechnya- Economic Department, Ministry of Agriculture; Ministry of Social Affairs and Labour.
- Azerbaijan-State Statistical Committee.
- Georgia- Food Security Observatory/ Agriculture and Ecology Dept, Ministry of Economic Development.
- Armenia-National Statistics Service.

The Mission was able to access the most recent sets of data from the respective offices and held discussions with the appropriate officers. With the exception of the sets of original market WFP data from Ingushetia and Chechnya, WFP comprehensive market data collections in Georgia and Abkhazia, some data from Vanadzor (WFP, Armenia), and market summaries from Azerbaijan, all non-specific[140] data circulating, irrespective of supplier including data on the internet from recognised authorities, come from the same governmental provenances.

[138] The post 1930s USA model promoted by USAID 2006
[139] Post earthquake support in Gyumru seems to have created an expectancy of aid
[140] Specific data in this context means data from commissioned research where surveys have been conducted and annual reports of organisations referring to their own activities.

Notwithstanding the access that the Mission enjoyed, acquisition of actual farm, household and market data, rather than processed averages and summaries, is precluded to a greater or lesser extent in all Republics, by the absence of independent, objectively-orientated monitoring body. The withdrawal of WFP's monitoring capacity with the closure of the Country Offices will severely limit information flow and the type of analyses that may be applied *at a time when both activities should be expanding*. For instance, price data becomes much more meaningful when connected to market presentations- sales and returns and repeat presentations, information that doesn't appear in the regular market information gathering. However, under the current plan of closure, there will be no monitors and all independent recording will cease.

b) Market Indicators to Monitor.

The agricultural and market price data collection processes for Georgia are reviewed in the text. Comments made by the Mission apply equally with regard to the processes and their usefulness to the data-collecting procedures and their supporting programmes in all the other Republics. Within the ministries visited information systems support programmes are evident and emphasis on sampling, collation, storage and analysis is laudable; but if all the data entered is based solely on retrospective interviews with no field sampling, no measuring and no weighing incorporated into the process, farmer/ trader or householder fears that the information gained will be used for a) tax calculations now or b) possible future taxation or c) commandeering of goods in times of conflict and strife, will dominate the returns, resulting in misleading underestimates that thwart the objectives of the action.

In any event, alternative sources of data, even if only monthly regular reports from designated indicator markets for specific commodities; and rapid assessments of target crops in key locations at the various harvest times are highly desirable for triangulation with the official statistics and for the production of independent information for all interested parties.

A range of indicators for inclusion in regular monitoring in four markets and fuel filling stations in the town and countryside in each Republic are listed below.

- Retail prices of wheat flour, vegetable oil, potatoes, sheep meat, a dairy product, diesel fuel monitored all to be monthly.
- Volumes presented for sale/ unsold on day of monitoring.
- Farm–gate prices of all cereals, roots and tubers, oil seeds and pulses for same months.
- Wage labour rates of daily-hired workers (labour pool) and uptake (number hired/ number available) on day of monitoring.

- Current pension rates / availability in each location accessed in each location on day of monitoring.
- Current family allowances and benefits rates / availability in each location on day of monitoring.
- Current tariffs as applied on movement of goods within and between the Republics during each month.

Regarding agricultural production, the Mission accepts that accurate estimates of area and yield may only be obtained by MoA/ National Statistics sample surveys/ or aggregated collections of data by local extension agents; however, rapid crop assessments may be used to audit and, where necessary, to augment such information. Such rapid assessments should be conducted at harvest times of the major crops and involve:

- Transects driven and walked through production areas supported by PET manuals or similar tools to establish rough estimates of yields.
- In-field spot sampling of yields.
- Semi-structured interviews with *individual* small-holder producers and large scale unit managers on their farms.
- Review of MoA/ Community administrations agricultural area data.
- Review of processing plants, volumes received, processed and in stock as straights or commodities.
- Triangulation of data sets and
- Estimation of production.

Presently, the only organisations that have the skills, experience, equipment and the recognised status that are undertaking or could possibly undertake such tasks in a co-ordinated manner, are WFP Country Offices. Not only have the local offices become established in the minds of authorities and international agencies as an integral part of the food security network, the national staff in each country have received a remarkable degree training both formal and on- the- job that could never be matched in courses. They have also, in each office, established a corporate approach over the years that makes the value of the established teams working together infinitely greater than the individuals working in isolation.

Furthermore, the WFP offices in each of the countries are linked to one-another, have a history of inter-office cooperation that is unique in the Caucasus sub-Region, and are supported by technical specialists at WFP Regional and Global Headquarters with all the necessary analytical skills and resources to oversee the performance and provide quality control as needed. In short, the bottom–line is that for the purpose of food security monitoring and analysis and consequent interventions, if the WFP Country Offices did not exist they would have to be invented to do the job.

Against this, the programme of WFP Country Office closure which connects to the food aid distribution role of WFP, due to be completed in the next four months, removes at a stroke the expertise outlined above and the reputation that has been developed over the past 10 years with regard to these enduring elements of food security assurance. The phrase *"Throwing the baby out with the bath- water"* springs to mind.

Whereas the Mission concurs that food aid, in the sense of WFP acquisition and delivery of food to communities, is no longer needed or anticipated, it is of regional importance to recognise that there are other roles that WFP is playing and / or could play. It would seem, therefore, to be essential that the monitoring and evaluating capability that has become established in the WFP offices is preserved, in some form, in each Republic as a national asset. Given that the offices are equipped with aging vehicles and IT hardware, second hand furniture and materials it seems to the Mission to be much more cost effective to handover the whole set of assets to the existing staff to enable them to continue and expand food security monitoring and related work[141] on behalf of WFP and other donors, as an independent NGO in each country.

A few months remain to register a suitably named NGO in each country; develop mission statements and modes of working within and between countries in the sub-Region and fund raise, with WFP Regional Office assistance, to gain Regional support from the main global donors for the first 2 years of activities.
The idea currently being suggested in WFP Regional Office[142] that a watching brief should be maintained by keeping a WFP officer *in situ* in each country does not, in the Mission's opinion,
a) offer an adequate solution to the problem of acquiring/ analysing meaningful food security data in each country;
b) ensure a lasting legacy of 10 years WFP investment by preserving highly effective working units of which there are no in-country parallels;
c) offer platform for other non-food aid but food-security linked actions that could be provided better by a network of WFP-supported NGOs.[143]

The above finding forms the basis for Mission recommendations relating to data collection.

5.2.7 Opportunities for local purchase for WFP.

Local purchase is a single strategy that offers, simultaneously, a means of stimulating local economies and improving access to food. Two areas of potential WFP involvement are recognised by the Mission following

[141] Including the implementation of LPO1 and LPO2.
[142] Anne Callanan (2008) Personal Communication-Comments on First Draft, June
[143] Ultimately self-sustaining (international funds) NGOs.

the field trips and literature reviews. Differing considerably in scale, one recognises the untapped potential of unused arable land for cereal/ pulses/ oilseed production to address the reported global shortages and the glaring lack of strategic grain stocks in all the Republics visited. The other opportunity recognises the excellence of unheralded small-scale producers whose contribution to national harvests requires enhancing for the improvement of their well –being while, at the same time, increasing the quantity and quality of local goods to market.

Renewed interest in investment in large-scale production of cereal and oilseeds has been reported elsewhere (FAO- EBRD, 2008)[144] The Mission has already identified a reversal in land use policy in the Russian Federation with increased planting of 180,000 ha in the 2007/ 2008 season and supporting strategies prominent in the Strategic Plan (2008-2011) that are designed to increase wheat production *per annum* from 49 million tonnes (2007) to 56 million tonnes in 4 years. Reliance on the market forces to increase global grain availability appears to be justified from the production view point, given that gross margins are increasing month by month and companies are expected to extend their areas sown equally in Ukraine and Kazakhstan as returns justify the expenditure, even in marginal areas. Unfortunately, such initiatives noted in meetings in the South Caucasus (Georgia and Armenia) connect to purchase of land already distributed to small farmers because such purchases are "easier". Under such conditions the unallocated state farm land remains untilled.

However, increased production does not mean increased food security, particularly now that

- speculators are entering to food commodity markets in far greater numbers[145];
- hedge funds are pushing up grain and oilseed futures,
- grains can now be stored for years if necessary in the right conditions.

All of which suggests that futures prices are destined to become self-fulfilling prophecies and that any future *unseen tsunami*[146] will be, in the Mission's opinion, not only manmade but based on valuing and applauding greed above the common good. In this regard, the way forward for WFP is complicated. That WFP needs grain and other food stuffs is a given, that such goods may be required in the sub-Region, which is historically prone to disasters is likely; local purchase within in

[144] FAO-EBRD, 2008, Grain Production and export potential, Policy Paper, London March 2008

[145] 20% increase in USA grain trading first quarter 2008-CBOT reports external factors are disturbing the market place. Daily Grain-Trade emails are circulating globally inviting investors to buy grain hedge funds to capitalise on predicted shortages, each transaction involving short term profit-taking.

[146] WFP Director- General, Press Report April (2008)

the Region at a scale to assist in such disasters is sensible; yet *ad hoc* local purchase involves risk and uncertainty while forward purchase, at such a scale as is necessary, fuels speculation.

The answer seems to lie in the Mission assertion that none of the South Caucasus wheat-importing countries visited have strategic stocks, yet all have silos and stores capable of holding such stocks for as long as necessary and all have unused arable land. Consequently, the first local purchase option (LPO 1) is to link new large- scale enterprises taking on abandoned, possibly marginal land with the purchase of grains (*e.g.* wheat, maize, pulses, oilseeds) grown on contract for WFP, which will be held *in- country* as strategic stocks in each of the South Caucasus group of countries, especially Georgia and Armenia. Such stocks should be released, on agreement, when prices reach a nominated threshold, in the same way as intervention stocks have been used under the EEC-CAP (*passim*). Funds generated from Strategic Stock sales to millers or wholesalers to be recycled to replace the stocks by local purchases.

The second local purchase option (LPO 2) relates to existing farmers with PHPs and disadvantaged/ vulnerable consumers in cities. Uniting two sectors of a population to improve food security/ livelihoods of both through local purchasing is a concept often used elsewhere to good effect.[147] In all the Mission-visited Republics, two such sections of the community exist. In many instances they are linked by clan ties or direct family relationships, LPO 2 is designed to reinforce such links where they exist and to establish such links where they do not exist; in this regard it is applicable to all five Republics visited by the Mission.

An estimated 1.63 million small-holders are farming in the five Caucasus countries visited by the Mission. Their reputation as the saving grace of both Soviet (during traumas) and post-Soviet agricultural industry survival is widely acknowledged, however, their farming system, common to all countries, involving local combinations of hand-labour (family or clan interactions), horse and bullock traction, single-axle tractors, short-term tractor hire; carry-over seeds, farmyard manure and proven combinations of perennials and annuals, intercropping, relay cropping and alfalfa based rotations grown to support house-cows and other small stock is:

- underestimated in livelihoods analysis;
- ignored as a subject for research;
- disregarded as an engine of development.

[147] In Mali 1983, Euro Action Acord (EC funding) linked producer pre-cooperatives in the Niger river rice growing areas with consumer pre-cooperatives among Tamashek pastoralists grazing herds and flocks between Gao and Timbuktu. The revolving fund was turned over 3-5 times during the first year.

The privatisation of state farms and collectives has been roundly criticised for farm fragmentation and the creation of unviable holdings. Viewed from the perspective of observers/ planners/ investors from countries with the *high-capital : low-permanent-labour* model of agriculture, where 5% or less of the population have access to farm land and where farm labourers are recruited, as needed, in seasonal labour gangs from neighbouring states for a pittance, the size of holdings is seen as the major obstacle to development. Viewed as the raw- material with which to create an enduring and equitable form of agricultural development, based on highly-productive, small-scale units with a history of sustainable practices, the PHPs offer a glorious opportunity that is unlikely to be repeated.

Since privatisation, the combination of 1 to 2 ha PHPs for field crops plus 0.25- 1.5 ha[148] of backyard kitchen garden provides room for a more stratified approach to land management that introduces a new, stable framework to extend modern and appropriate technologies to the notion of traditional strip farming.

Nominally, fields for grains, nitrogen-fixing forage and oil seeds with backyard plots for fruit trees and bushes, potatoes, other vegetables and spices and animal pens provides a combination that is the small-holder dream. To a very great extent this combination already exists in Ingushetia, Chechnya, Georgia, central and west Azerbaijan and in the plains of Armenia. It is this combination that is already providing the bulk of the potatoes, fruit, vegetables, alfalfa plus locally-produced milk and dairy products, meat and eggs in all the Republics under review. The Mission contends that by further integrating the two holdings through refining the techniques and supporting small-holder needs to develop the most efficient linkages within and between units to maximum advantage, a far more coherent form of development will be achieved than by re-creating macro- enterprises.

The Mission feels that because of the *dissimilarity* of the concept of an aggregation of small-holdings as *the* recognised national agricultural sector on the one hand, and a) the previously recognised Soviet macro-farm system and b) the western-style agricultural sector of large-scale commercial farm enterprises on the other hand, has meant that the importance of the PHPs has not been properly recognised.

There have been no attempts to consider seriously the small-holders as *the* unit for national agricultural development. No attempts have been made to analyse production, determine the real bottlenecks and to offer development solutions that recognise the scope and scale of support required whether it be importing machinery, *e.g.* 5-15hp single-axle

[148] PHPs private household plots; backtards at c 0.25 ha Ingushetia, c1.0 ha Georgia.

tractors not 500 hp 4- wheeled drive units; selecting crop varieties suited to the small holder practices *e.g.* selection of tomato varieties for solar drying; or developing small-maternal- size dual- purpose cattle with low maintenance requirements, not the automatic introduction of Holstein cattle genes.

At the production end of the relationship, LPO 2 begins with coordinated support to local NGO/ COs through technical assistance, training and exposure visits, to identify groups and appropriate *modus operandi*, confirming existing levels of production through physical recording*;* establishing bottle necks and determine significantly sized programmes targeted to guarantee high quality local purchase from small holder groups.
Crucial elements include:

- formation of stable groups,
- accurate knowledge of current and changing levels of production,
- access to credit for smallholders with no collateral,
- credit fund has sustainable levels of interest,
- crop/ animal credit insurance to safeguard individual and group investments,
- growing contracts issued to the small-holders by the group for several years linked to quality control and delivery schedules,
- processing options that can be locally managed are derived to handle surplus production,
- training and mentoring links in all aspects, technical, managerial and commercial are made available for the groups and individual members.

With the exception of smallholder insurance[149] all the components and no doubt many others have featured in development programmes in other continents and, with TA inputs, are well-within the supervisory capacity of the current WFP Country Offices. WFP has the corporate experience and assets to provide technical assistance and training to develop the smallholder units from the unseen/ unrecognised role they are currently taking into the major force for rural development and urban food security. LPO 2 recognises the importance of smallholders and although not likely, by itself, to change national objectives of agricultural development, the initiative will provide a vivid example of the potential of the sub-sector.

At the other end of the LPO 2 construct lie the consumers. Whereas consumer pre-cooperatives have a history in remote rural areas, their establishment in sophisticated urban complexes is not a subject with which the Mission is familiar. The concept remains the same, vulnerable- disadvantaged people within a designated area such as

[149] Currently under investigation by WFP Ethiopia

blocks of apartments or distinct quarters of towns, form purchasing pre-cooperatives and buy locally- produced food commodities and straights directly from producer pre-cooperatives using a group-based revolving fund. The fund should be linked to savings and credit scheme (micro-finance- institutions) of which many examples exist in the Republics.

The Mission envisages that WFP supports both ends of the relationship through technical assistance and training; and brokers the deals through surrogate organisations on the ground that could be the remnants of the WFP Country Offices, re-constituted as NGOs.

6 Recommendations

6.1 Capacity Preservation

The Mission recommends that:

- WFP Regional Office recognises that its WFP Country Office food aid acquisition and delivery functions have declined to the extent that cessation is anticipated in each Republic and that cessation is unlikely to cause widespread hardship, provided that the extant social support mechanisms continue to be employed and enhanced as described in the Mission Report. By the same token, the improved conditions in each Republic do not signal the need to restart emergency food aid operations
- WFP acknowledges that the North Caucasus Republics are part of the Russian Federation, a grain exporting and a WFP donor country, and are, therefore, dependent on the Russian Federal budget. The responsibility includes the provision of social support, a domain which covers if necessary, food supply including the release and delivery of stocks of grain under the control of EMERCOM.
- WFP Regional Office recognises that opportunities may exist to provide technical assistance to EMERCOM with regards to the application of WFP's proven food security monitoring and analytical tools through structured visits, workshops and secondments.
- WFP Regional Office recognises that accurately monitoring and analysing food security in each Republic is a task beyond the capacity of a single WFP Assistant Representative attached to any one particular Ministry.
- WFP Regional Office recognises that to match its monitoring aspirations and development interests in the Caucasus, a network of offices with the structure and competence of the existing WFP offices should be created.
- WFP Regional Office recognises that the investment made in training and on-the –job experience given to national staff in all WFP Country Offices during the past 10 years has established a legacy of unique value and enduring quality that is unrivalled and will not be easily replaced.

- WFP Regional Office recognises that the sums of the parts of the Country Offices are far more valuable than the fragmented and dispersed wholes.
- WFP Regional Office revisits the dispersal of staff and the sale of local assets and considers whether the funds gained from selling the second- hand vehicles, equipment and furniture are going to be more useful to WFP and the sub-Region than the enduring legacy of an immediately functional, fully-equipped, food- security orientated, local NGO staffed by specialists.
- WFP Regional Office immediately opens a dialogue with the Country Offices and the relevant Ministries to investigate the possibility of creating such NGOs from the remnants of the Country Offices.
- WFP Regional Office offers the NGOs their first contracts to monitor/ analyse food security, while at the same time assisting their applications to major donors for a broader range of food security/ income generation projects and programmes, including the capacity building in local government jurisdictions regarding food-security information gathering, analysis and interpretation and the implementation of LPO 1 and LPO 2.

6.2 Price Escalations

The Mission recommends that:

- WFP Regional Office recognises that the greatest price increases are presently connected to imported commodities or straights, especially wheat flour, vegetable oil and wheat grain, and considers organised lobbying with other UN Agencies and major humanitarian aid donors
    - a) to have import tariffs removed on the wheat, wheat flour and other basic food imports in Armenia;
    - b) to have VAT removed from wheat, wheat flour and other basic food imports in Georgia and Armenia.
- WFP Regional Office recognises that the absence of strategic wheat stocks in all the three South Caucasus Republics places the responsibility for food security (main staple) in the hands of large-scale milling companies, who are themselves dependent on bank loans and commercial importing arrangements to meet demands.
- WFP Regional Office recognises that strategic stocks of wheat, to be released for sale, with prior agreement, when prices reach a predetermined threshold, are an effective means of
    - countering wheat grain speculation,
    - maintaining the flow of affordable wheat flour/ bread to urban populations,
    - sustaining the business of small scale millers in rural areas thereby enabling them to mill locally produced grains from small-holders;
    - reducing national vulnerability.

- WFP Regional Office investigates the possibility of funding the creation of strategic stocks (revolving fund) in each South Caucasus Republic using existing, un-occupied storage facilities.
- WFP Regional Office lobbies WFP Headquarters to support the UN Special Rapporteur on the Right to Food and the Head UNEP in the strong criticism of food commodity speculation and short–term profit taking that is pushing up grain trade futures.

6.3 Baseline Prices

The Mission recommends that:

- WFP Regional Office recognises the need to establish indicator markets in surplus and deficit areas and to organise the regular collection of price and presentation (volume) data.
- WFP Regional Office obtains copies of the software developed for use in South Sudan and elsewhere (Africa) for the collection, storage and analysis of market data with the intention of adapting them for use in the Caucasus.
- WFP Regional Office addresses the need for triangulation of government estimates of production data through the establishment of rapid assessment capability in independent units.
- WFP Regional Office considers the need to upgrade existing government information gathering offices through technical assistance, workshops, on–the- job training and purchase of field equipment (e.g. spring balances and quadrats) for extension agents and enumerators and the development of manuals (e.g. a Pictorial Evaluation Tool (PET)) for crops at harvest time in the Caucasus sub-Region.
- In the event of a rejection of recommendations in 6.1 to preserve and expand the monitoring capacity in each country through the creation of independent, food- security specific NGOs from the disestablished WFP Offices, WFP negotiates contracts with existing NGOs with suitable networks to undertake the same activities. FINCA (Savings and Credit), may have sufficient outlets to undertake such work.

6.4 Local Purchase Opportunities

The Mission recommends that:

- WFP Regional Office considers the proposal in outlined in Section 5.2.7 local purchase option 1 (LPO 1) to link new large- scale enterprises taking on abandoned, possibly marginal land with the purchase of grains (*e.g.* wheat, maize, oilseeds) grown on contract for WFP, which will be held in- country as separate strategic stocks in all the South Caucasus group of countries, to be released to the market, on agreement when prices rise above a certain threshold.
- WFP Regional Office considers the proposal outlined in Section 5.2.7 local purchase option 2 (LPO 2) relating to existing farmers with PHPs

and disadvantaged/ vulnerable consumers in cities. LPO 2 is designed to reinforce such links where they exist and to establish such links where they do not exist by;

- encouraging production of high quality local foodstuffs through formation and support to smallholder production/ processing groups;
- encouraging and supporting the formation of consumer pre-cooperatives in cities;
- brokering the purchase of farm goods by the consumer groups, grown on contract for WFP by the small-holder groups.

- WFP Regional Office considers the option that the organisation and monitoring of LPO1 and the implementation of LPO2 should be undertaken by the new NGOs formed from the disestablished WFP Country Offices.

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ANNEX 1
Terms of Reference

Regional Market Study Caucasus
(Georgia, Azerbaijan, Armenia, Russia)

Background

The unique nature of the ODC region, with many countries having functioning food markets, and with populations increasingly obtaining food commodities from these markets, makes it particularly important to understand how markets function, how they contribute to food security and how WFP can build local capacities to support the most vulnerable within this context.

International food markets are becoming increasingly dynamic and integrated. Most countries of the ODC region depend on these markets, as natural as well as economic conditions in some countries limit self-sufficiency in food production. In the Caucasus, countries like Georgia, Azerbaijan and Armenia are net importers of food commodities and are procuring an increasing share of their food needs on international markets, often from Russia, with which they have traditional trade links. For many countries in the Caucasus as well as in the Central Asia region, Russia is still the most important source for the importation of basic food commodities such as wheat, wheat flour or vegetable oil.

Despite significant improvements made in recent years with regard to food security in the Caucasus countries, in some of them poverty is still high and many of the poor continue to be vulnerable to food insecurity. Particularly in the case of natural disaster or political crises/conflict, both frequently observed in the region, food insecurity can increase fast and can affect considerable parts of the population.

Also in the Caucasus countries, in the recent past prices of food commodities have gradually, and at times abruptly, increased by more than 50%, following trends in international food markets. The problem of high commodity prices, coupled with high transportation costs, is reducing access to food for the poorest and most vulnerable. All data indicate that this trend is likely to continue.

Although WFP is phasing out from these counties in the near future, it has the mandate to carefully monitor the food security situation of vulnerable populations in the region. Not only natural disaster or political crisis, but also abrupt changes in market supplies combined

with sudden and sharp price increases may expose vulnerable populations to the risk of food insecurity and increased poverty.

Against this background, there is a strong need to analyse the development and dynamics of food markets in the region, to understand market trends and to draw conclusions from this analysis for appropriate contingency planning, emergency preparedness and response.

Sound market information will in turn create an enhanced WFP organisational learning and knowledge management of both the Regional Bureau and country offices, which will contribute to a more robust methodology enabling WFP to better adjust its approaches and tools allowing quick response to changing market conditions.

1 Objectives and Expected Outcome

Main objectives of the consultancy are

- Country specific market profiles
- Assessment of regional trade flows, dependencies and risks
- Assessment of the impact recent price trends have on access to food markets of the poorest segments of the population

2 Specific Activities

- Undertake desk review of country specific studies and reports related to food markets
- Analyse food markets of the countries in the region with regard to price developments and trends and analyse the consequences price increases have on food supplies and the food security situation of vulnerable populations.
- Analyse trends in food production, commodity prices, trade flows, stocks and import requirements (and export policies/strategies in the case of Russia).
- Assess food market structure, market integration, price elasticities and import parity prices in respective countries in the region.
- Assess regional trade flows, transport costs, dependencies and risks of regional markets (regional market profile)
- Analyse food (-security) and trade policies of specific countries and their consequences for regional trade.
- Provide input for emergency preparedness/contingency planning & the development of appropriate responses in support of vulnerable populations in the Caucasus countries
- Explore regional purchase options (Russia)
- Collaborate/coordinate with other agencies (FAO) and partners working in the field of market analysis.
- Elaborate country specific & regional market studies

ANNEX 2
Itinerary of Visits

Date	Place	Person	Organisation	Position
RUSSIAN FEDERATION				
19th March	Moscow	Vladimir Mikheal	Ministry of Agriculture, Department of International Cooperation	Chief Specialist
		Sergei Sukhov	Ministry of Agriculture, Department of International Cooperation	Director Dept. Agriculture and Food Markets
		Alexander Yakimushkin	Ministry of Agriculture, Department of International Cooperation	Division Head
19th March	Moscow	Inge Breuer	World Food Programme	Representative and Country Director
	Moscow	Viola Grigoryan	World Food Programme	Logistics Assistant
20th March	Moscow	Arkady Gurevich	Russian Union of Flour Mills & Cereal Plants	President
		Nicolay Rybakov	Russian Union of Flour Mills & Cereal Plants	Vice-President
21st March	Moscow	Klaus Rohland	World Bank, Resident Representative	Director
22nd March	Moscow	Vygintus Sidlauskas	UNDSS	Security Officer
23rd March	Moscow	Farrukh Toirov	Food and Agriculture Organisation	Emergency Coordinator
23rd March	Vladikavkas	Khairiniso Najmetdinova	World Food Programme	Head of Sub-office of North Caucasus
24th March	Vladikavkas	Seita	World Food Programme	Market Programme Monitor
24th March	Vladikavkas	Movse el Jurkiev	World Food Programme	Programme Officer
24th March	Vladikavkas	Sayod Taekoev	World Food Programme	Food for Work Monitor
25th March	Grozny	Elita Zazikova	Trader	Private Supplier to Caritas, Grozny
25th March	Grozny	Moosa Zevrief	Ministry of Social Development	Head Dept.
25th March	Grozny	Abubakr	Ministry of Agic	Minister
25th March	Grozny	Babu Debran	Ministry of Agric.	Deputy Minister

25th	Grozny	Zalemu Osman	Ministry of Agric	Senior Ag Economist
25th	Grozny	Head and Dept. Head	Farmers' Association	Crops and animals
26th March	Nazran	Ibrahim Kurkiev	Ministry of Statistics	Chief Statistician
26th March	Nazran	Women Traders	Fabrichny Market	Stallholder traders
26th March	Nazran	Women Traders	Fabrichny Market	Market trader in cereals
26th March	Nazran	Gilani Gadier	Farmers Association/ Min of Ag	Deputy Head
26th	Nazran	Mohmad Mulsago	Danish Refugee Council	Representative
27th March	Vladikavkaz	Natalya Andreeva	United Nations Development Program	Rural Development Expert
	Vladikavkaz	Representative	EMERCOM	N. Ossetia EMERCOM head
28th March	TRAVEL TO AZERBAIJAN			
Date	**Place**	**Person**	**Organisation**	**Position**
AZERBAIJAN				
29th March	Baku	Lynne Miller	World Food Programme	Country Director
29th March	Baku	Tahir Agayev	World Food Programme	Senior Programme Assistant
29th March	Baku	Dr Tarana Bashirova	Food and Agriculture Organisation	FAO Assistant Representative
29th March	Baku	Market Organiser	Yah Marka	Market Organiser
30th March	Baku	Trader	Yah Marka	Meat Trader
30th March	Baku	Trader	Yah Marka	Vegetable Trader
30th March	Baku	Gurban Sadikhov	Cabinet of Ministers	Head Of Dept. IDPs etc
31st March	Baku	Seyfeddin O. Yusifov	State Statistical Committee of Azerbaijan Republic	Head of Agriculture Statistics Division
31st March	Baku	Sabir Veliyev	Ministry of Agriculture	Head of Department of Agricultural Production and Processing
31st March	Baku	Dr Tarana Bashirova	Food and Agriculture Organisation	FAO Assistant Representative
31st March	Baku	Karina Schmitt	World Food Programme	Head of Programme
1st April	Baku	Rafiq Majide	Ministry of Agriculture	Head of Economics
	Baku	Islam Ibrahim	Ministry of Agriculture	Department Land Affairs
1st April	Baku	Rufiz Chirag-zade	World Bank	Operations Officer
1st April	Baku	Shamil Rzayev	United Nations Development Programme	Senior Development Advisor
1st April	Baku	Bruno Pouezet	United Nations Development	Head

			Programme	
1st April	Baku	Paul Hamlin	ACDI/VOCA USAID	SME Finance Expert
1st April	Baku	X. Telman	Sari Sunbul	Manager Flour Mill
2nd April	Baku	Jeff Flowers	FINCA	Country Director
3rd Apil	Mingevecir	Ilgar Bedallov	FINCA	Regional Office Head
	Mingevecir	Nasum	FINCA	Programme Officer
3rd April	Haji-gubal	Anar	market	Trader
	Haji-gubal	Anon	market	Wholesaler
3rd April	Mingevecir	Galib	market	Trader
	Mingevecir	Anon	market	Entrepreneur Trader
4th April	Mingevecir	Gulmar Mahmat	market	Wholesale Grain Trader
4th April	Mingevecir	Gulmaar- Ferraddin	market	Retail Trader
4th April	Ganja	Ahmed Aliyev	ADRA-Ganja	Business Development Service
4th April	Ganja	Vugar Babayev	Ganja Agro-Business Association	Head
5th April	TRAVEL TO GEORGIA			
Date	**Place**	**Person**	**Organisation**	**Position**
GEORGIA				
6th April	Sagarejo	Anon	Lumballo Market	Azeri Female Cheese Traders
6th April	Sagarejo	Anon	Yarmruganlo Bazaar	Wheat flour wholesalers/ retailers
6th April	Telavi	George Dakishvili	Vinoterra Winery	Company Founder
6th April	Akhmada District	Anon	Food for Work fishpond	Local Farmer plus IDPs
	Akhmada District	Timo	Farmer	Cereal Farmer
6th April	Kakaheti	David	Dairy Farmers Association	unit manager 46 farmers
7th April	Tbilisi	Lola Castro	World Food Programme	WFP Representative Georgia
7th April	Tbilisi	Khatuna Epremidze	World Food Programme	Programme Officer
7th April	Tbilisi	Yulon Tsilosani	World Food Programme	Reports Officer
7th April	Tbilisi	Kote Kentsaidze	Ministry of Agriculture	Technical Advisor
7th April	Tbilisi	Tamara Bukhrashvili	Ministry of Agriculture	Head Eur. Integ'n/International R's
7th April	Tbilisi	Eka Naobishvili	Ministry of Agriculture	Chief Specialist
7th April	Tbilisi	Mamuka Meshki	Food and Agriculture Organisation	Assistant Representative
7th April	Tbilisi	Archil Mestvirishvili	National Bank of Georgia	Head Macro-Economics and Statistics pt
7th April	Tbilisi	David Lezhava	National Bank of Georgia	Head Macroeconomic Research sion

7th April	Tbilisi	Konstantin Osipov	Agrikom	Director
7th April	Tbilisi	Ketie Kubashvili	Agrikom	Technical Officer
8th April	Tbilisi	Guram Tsertsvadze	Nikora Food Production Company	Commercial Director
8th April	Tbilisi	Mako Jaoshvili	Nikora Food Production Company	Head of PR
8th April	Tbilisi	George Kvinikadze	Ministry of Economic Development	Head of Division/ Food Sec Obs.
8th April	Tbilisi	Sophie Khemkhadze	UNDP	Team Leader Econ Dev
9th April	Ozurgeti	Avto Kinkladze	Small Land Owners Association	Director
9th April	Ozurgeti	Revaz Kinkladze	Tea Producers Association	Director
9th April	Ozurgeti	Ramaz Khavadagiani	Tea Factory	Manager
10th April	Zurgidi	Savash Turksal.	Guria Express Mill	Director
10th April	Zurgidi	Trader	Zurgidi Market, Zwardi Section	Flour and Bran Seller
10th April	Zurgidi	Trader	East Market	Maize Sellers
10th April	Zurgidi	David Korshia	Argonuts Hazelnut Factory	Director
11th April	Tbilisi	Nikola Natroshvili	People's Bank	Director
11th April	Tbilisi	David Esaiashvili	People's Bank	Head of Retail Credit Management
11th April	Tbilisi	Ezmar Lomidze	Tblisi Mill	Director
12th April	TRAVEL TO ARMENIA			
Date	**Place**	**Person**	**Organisation**	**Position**
ARMENIA				
13th April	Ptghavan	Rafik Chanyan		Mayor
13th April	Ptghavan	Trader	Ptghavan Market	Potato Seller
13th April	Gavar, Lori Marz	Artusah Markaryan	Community Union	Director Dilijan village
13th April	Gavar, Lori Marz	Sankel Harepyan	Community Union	Director Berd village
13th April	Gavar, Lori Marz	Ahdranavk Veranaian	Community Union	Executive Director
14th April	Vanadzor	Ms Anahit Matevosyan	Statistics Service	Head of Agency
14th April	Vanadzor	Vladimir Bouniatyan	Ministry of Agriculture	Head Agricultural Prod'n / Envment
14th April	Vanadzor	Ashot Saghyan	FINCA	Branch Manager
14th April	Vanadzor	Karen Khachatyan	AREGAK	Branch Manager
15th April	Gyumru	Arntegyan	Mill and Bakery	Owner and Son
15th April	Meghrashyan	Gor Petrusyan	Small Farmers Association,	
15th April	Meghrashyan	Sayet Khachtryan		Mayor
15th April	Meghrashyan	Ara Sukiasyan	Seed Production Company	Head
16th April	Yerevan	Martin Mkhitarian	Ministry of Labour and Social Aff.	Head of Human Affairs Dep.

16th April	Yerevan	Avetik Nerisyan	Food and Agriculture Organisation	
16th April	Yerevan	Lola Castro	World Food Programme	WFP Representative Armenia
16th April	Yerevan	David Sargsyan	Central Bank	Head of Dept of Fin' Policy/ analysis
17th April	Yerevan	Gurgen Martirosyan	National Statistics Service	Head of Prices of Agri- Sector
17th April	Yerevan	Arsen Avaygan	National Statistics Service	Head of Agri- Statistics Dept
18th April	Yerevan	Customs Officer	Customs	Head of Section
18th April	Manana	Aman Manukyan	Manana Milling Company	Financial Manager
18th April	Yerevan	Sean Carmody	USDA	Agricultural Project Coordinator

ANNEX 3
Local currency market prices

US $ market price graphs are based on the data received, and shown in these tables. Conversion rates used for each Republic vs US $. Chechnya and Ingueshetia: 1$: 23.6 Roubles. Armenia: 1$: 342 Dram. Georgia: 1$: 1.44 Lari. Azerbaijan: 1$: 0.82 Manat

Ingueshetia and Chechnya Market Prices – Rouble

Labour (piece work, daily rate)

Market	Nazran	Sleptsovsk	Malgobek	Grozny	Vedeno (East)	Shatoy (South)	Achkhoy-Martan (West)	Znamenskoe (North)
Jan-07								
Feb-07								
Mar-07								
Apr-07	70	70	60	70	50	50	70	70
May-07	70	70	60	70	50	50	70	70
Jun-07	70	70	60	70	50	50	70	70
Jul-07	70	70	60	70	50	50	70	70
Aug-07								
Sep-07	100	100	100	100	80	100	100	100
Oct-07	100	100	100	100	80	100	100	100
Nov-07	200	200	200	200	150	200	200	200
Dec-07	250	250	250	275	275	275	300	300
Jan-08				410.77	410.77	410.77	448.11	448.11
Feb-08				410.77	410.77	410.77	448.11	448.11
Mar-08				410.77	410.77	410.77	448.11	448.11

Diesel (1 ltr)

Market	Nazran	Sleptsovsk	Malgobek	Grozny	Vedeno (East)	Shatoy (South)	Achkhoy-Martan (West)	Znamenskoe (North)
Jan-07								
Feb-07								
Mar-07								
Apr-07	14.5	14.5	14.5	14	14	14	14	14
May-07	15	15	15	14.5	14.5	14.5	14.5	14.5
Jun-07	15	15	15	14.5	14.5	14.5	14.5	14.5
Jul-07	15	15	15	14.5	14.5	14.5	14.5	14.5
Aug-07								
Sep-07	15.5	15.5	15.5	15	15	15	15	15
Oct-07	15.5	15.5	15.5	15	15	15	15	15
Nov-07	18	18	18	15	15	14	16	16
Dec-07	21	21	21	21	21	21	21	21
Jan-08	17.92	17.92	17.92	16.93	12.95	11.95	10.95	12.95
Feb-08	17.92	17.92	17.92	16.93	12.95	11.95	10.95	12.95
Mar-08	22.90	22.90	22.90	16.93	16.93	13.94	11.95	14.94

Lamb (1 kg)

Market	Nazran	Sleptsovsk	Malgobek	Grozny	Vedeno (East)	Shatoy (South)	Achkhoy-Martan (West)	Znamenskoe (North)
Jan-07								
Feb-07								
Mar-07								
Apr-07	120	120	120	120	120	120	120	120
May-07	120	120	120	120	120	120	120	120
Jun-07	120	120	120	120	120	120	120	120
Jul-07	120	120	120	120	120	120	120	120
Aug-07								
Sep-07	130	130	130	130	130	120	130	130
Oct-07	130	130	130	130	130	130	130	130
Nov-07	130	130	130	130	130	130	130	130
Dec-07	130	130	130	130	130	130	130	130
Jan-08	129.45	129.45	129.45	129.45	129.45	129.45	129.45	129.45
Feb-08	129.45	129.45	129.45	129.45	129.45	129.45	129.45	129.45
Mar-08	159.32	159.32	159.32	129.45	129.45	129.45	129.45	129.45

Beef (1 kg)

Market	Nazran	Sleptsovsk	Malgobek	Grozny	Vedeno (East)	Shatoy (South)	Achkhoy -Martan (West)	Znamenskoe (North)
Jan-07								
Feb-07								
Mar-07								
Apr-07	100	100	100	110	110	110	110	110
May-07	100	100	100	110	110	110	110	110
Jun-07	100	100	100	110	110	110	110	110
Jul-07	100	100	100	110	110	110	110	110
Aug-07								
Sep-07	120	120	120	120	120	110	120	120
Oct-07	120	120	120	120	120	120	120	120
Nov-07	120	120	120	120	120	120	120	120
Dec-07	120	120	120	120	120	120	120	120
Jan-08	119.49	119.49	119.49	119.49	119.49	119.49	119.49	119.49
Feb-08	119.49	119.49	119.49	119.49	119.49	119.49	119.49	119.49
Mar-08	119.49	119.49	119.49	119.49	119.49	119.49	119.49	119.49

Sugar (1 kg)

Market	Nazran	Sleptsovsk	Malgobek	Grozny	Vedeno (East)	Shatoy (South)	Achkhoy -Martan (West)	Znamenskoe (North)
Jan-07								
Feb-07								
Mar-07								
Apr-07	20	20	20	20	20	20	20	20
May-07	20	20	20	20	20	20	20	20
Jun-07	20	20	20	20	20	20	20	20
Jul-07	25	25	25	25	25	25	25	25
Aug-07								
Sep-07	25	25	25	25	25	25	25	25
Oct-07	25	25	25	25	25	25	25	25
Nov-07	25	25	25	25	25	25	25	25
Dec-07	25	25	25	20	20	20	20	20
Jan-08	24.89	24.89	24.89	19.92	19.92	19.92	19.92	19.92
Feb-08	24.89	24.89	24.89	19.92	19.92	19.92	19.92	19.92
Mar-08	24.89	24.89	24.89	19.92	19.92	19.92	24.89	21.91

Veg.Oil (1 ltr)

Market	Nazran	Sleptsovsk	Malgobek	Grozny	Vedeno (East)	Shatoy (South)	Achkhoy-Martan (West)	Znamenskoe (North)
Jan-07								
Feb-07								
Mar-07								
Apr-07	35	35	35	35	38	35	35	35
May-07	35	35	35	35	35	35	35	35
Jun-07	35	35	35	35	35	35	35	35
Jul-07	35	35	35	35	35	35	35	35
Aug-07								
Sep-07	53	52	52	50	50	50	50	50
Oct-07	53	52	52	47	47	47	47	47
Nov-07	50	50	53	50	55	60	55	55
Dec-07	50	50	55	55	55	55	55	60

Wheat Flour (50 kg)

Market	Nazran	Sleptsovsk	Malgobek	Grozny	Vedeno (East)	Shatoy (South)	Achkhoy-Martan (West)	Znamenskoe (North)
Jan-07								
Feb-07								
Mar-07								
Apr-07	360	360	360	350	350	350	350	350
May-07	370	370	370	360	360	360	360	360
Jun-07	370	370	370	370	370	370	370	370
Jul-07	450	450	450	450	450	450	450	450
Aug-07								
Sep-07	500	500	500	500	500	500	500	500
Oct-07	500	500	500	500	500	500	500	500
Nov-07	500	500	500	500	500	470	550	550
Dec-07	530	520	500	530	530	530	530	520
Jan-08	547.68	537.72	537.72	497.89	477.97	497.89	468.02	497.89
Feb-08	547.68	537.72	537.72	497.89	477.97	497.89	468.02	497.89
Mar-08	647.26	647.26	697.05	597.47	647.26	547.68	647.26	617.38

Armenia Market Prices – Dram

Month	Veg Oil (Ltr)	Sugar (kg)	Pork (kg)	Beef (kg)	Chicken (kg)	Wheat Flour (kg)	Diesel (ltr)	Labour (Piece work)	Potatoes (kg)
Jan-07	750.00	286.00	1527.00	1550.00	1306.00	209.00	281.00	2304.23	258.00
Feb-07	750.00	286.00	1527.00	1550.00	1306.00	209.00	281.00	2304.23	258.00
Mar-07	750.00	286.00	1527.00	1550.00	1306.00	209.00	281.00	2304.23	258.00
Apr-07	765.00	272.00	1605.00	1563.00	1317.00	213.00	281.00	2465.57	316.00
May-07	765.00	272.00	1605.00	1563.00	1317.00	213.00	281.00	2465.57	316.00
Jun-07	765.00	272.00	1605.00	1563.00	1317.00	213.00	281.00	2465.57	316.00
Jul-07	759.00	259.00	1684.00	1547.00	1235.00	225.00	281.00	2611.03	180.00
Aug-07	759.00	259.00	1684.00	1547.00	1235.00	225.00	281.00	2611.03	180.00
Sep-07	759.00	259.00	1684.00	1547.00	1235.00	225.00	281.00	2611.03	180.00
Oct-07	925.00	251.00	1660.00	1545.00	1286.00	271.00	350.00	2879.80	186.00
Nov-07	925.00	251.00	1660.00	1545.00	1286.00	271.00	350.00	2879.80	186.00
Dec-07	925.00	251.00	1660.00	1545.00	1286.00	271.00	350.00	2879.80	186.00
Jan-08	961.00	244.00	2357.00	1429.00	1114.00	274.00	347.14		202.00
Feb-08	961.00	244.00	2357.00	1429.00	1114.00	274.00	347.14		202.00
Mar-08	961.00	244.00	2357.00	1429.00	1114.00	274.00	347.14		202.00

Georgian Market Price WFP; Lari

	Wheat Flour (50 kg) Cities	Wheat Flour (50 kg) Districts	Wheat Flour (50 kg) Regional Centers	Veg Oil (1 ltr) Cities	Veg Oil (1 ltr) Districts	Veg Oil (1 ltr) Regional Centers	Sugar (1kg) Cities	Sugar (1kg) Districts	Sugar (1kg) Regional Centers
Mar'07	32.3	33.6	31.5	2.11	2.24	2.08	1.34	1.29	1.24
Apr'07	32.5	33.3	31.5	2.15	2.24	2.08	1.3	1.26	1.24
May'07	32.8	33.6	32.5	2.2	2.33	2.18	1.28	1.27	1.22
Jun'07	34.3	35.1	34.8	2.23	2.31	2.12	1.18	1.22	1.16
Jul'07	42.5	44.5	42.8	2.23	2.45	2.27	1.21	1.3	1.21
Aug'07	43	44	43.3	2.9	3.06	2.95	1.3	1.31	1.25
Sep'07	49	47	45	3.13	3	3.5	1.27	1.25	1.35
Oct'07	50	49.8	52.9	3.83	3.94	3.77	1.48	1.61	1.49
Nov'07	49	49.1	52.3	3.83	3.97	3.91	1.43	1.6	1.46
Dec'07	48.3	49.4	52	3.8	3.98	3.91	1.41	1.57	1.43
Jan'08	47	49.8	50	3.9	3.91	3.96	1.08	1.31	1.23
Feb'08	48.8	51.3	50.9	4.1	4.16	4.06	1.15	1.4	1.25
Mar'08	46.6	48.3	50.3	4.1	4.07	4.38	1.03	1.28	1.16

	Diesel (1 ltr) Cities	Diesel (1 ltr) Districts	Diesel (1 ltr) Regional Centers	Labour (daily rate) Cities	Labour (daily rate) Districts	Labour (daily rate) Regional Centers
Mar'07	1.21	1.33	1.31	15	8.6	10.2
Apr'07	1.23	1.31	1.31	13.8	8.6	10.2
May'07	1.38	1.4	1.43	15.8	9.1	8.3
Jun'07	1.36	1.38	1.34	17	10.5	14.4
Jul'07	1.46	1.47	1.44	17.8	9.3	13
Aug'07	1.48	1.45	1.46	13.3	9.6	10.8
Sep'07	1.52	1.53	1.5	16.7	10	10
Oct'07	1.53	1.56	1.56	13.3	11.7	15.1
Nov'07	1.61	1.68	1.64	13.3	11.6	15.9
Dec'07	1.62	1.7	1.65	14.5	11.5	15.4
Jan'08	1.63	1.65	1.62	17.8	11.4	14.4
Feb'08	1.64	1.64	1.61	17.8	11.4	14.4
Mar'08	1.69	1.77	1.74	19	12	15.4

Abkhazia Market Price- Georgia WFP; Lari

	Wheat Flour (50 kg) Cities	Wheat Flour (50 kg) Districts	Veg. Oil (1 ltr) Cities	Veg. Oil (1 ltr) Districts	Sugar (1 kg) Cities	Sugar (1 kg) Districts	Diesel (1 ltr) Cities	Diesel (1 ltr) Districts	Labour (daily rate) Cities	Labour (daily rate) Districts
Mar'07	29.3		1.56		0.82		0.76		7.8	
Apr'07	29.3		1.56		0.86		0.76		7.8	
May'07	29.3		1.56		0.86		0.76		7.8	
Jun'07	29.3		1.56		0.86		0.76		7.8	
Jul'07	29.4		1.57		0.82		0.76		7.1	
Aug'07	29.4		1.57		0.82		0.76		7.1	
Sep'07	29.4		1.57		0.82		0.76		7.1	
Oct'07	32.4	32	1.9	2.2	0.85	1.04	0.79	0.88	7.3	4
Nov'07	30.9	31	1.85	1.86	0.86	1.07	0.84	0.89	9.3	7.2
Dec'07	30.9	31.3	1.85	1.86	0.86	1.08	0.86	0.9	9.3	7.3
Jan'08	33.1	33.2	1.94	2.28	0.99	1.08	0.85	0.93	11.4	7.3
Feb'08	33.1	33.2	1.96	2.28	0.97	1.08	0.85	0.93	11.4	7.3
Mar'08	34.2	34.6	2.03	2.38	1	1.13	0.96	1.04	16	7.6

Azerbaijan Market Prices – Manat

Ministry of Agriculture

Month	Wheat flour (1 kg)	Beef (1 kg)	Pork (1 kg)	Mutton (1 kg)	Chicken (1 kg)	Sunflower Oil (1 ltr)	Sugar (1 kg)	Fresh Potato (1 kg)
Jan-07	0.35	4.20	3.88	4.64	2.92	1.33	0.76	0.48
Feb-07	0.35	4.20	3.89	4.64	2.98	1.34	0.77	0.50
Mar-07	0.35	4.20	3.90	4.66	3.01	1.35	0.77	0.50
Apr-07	0.35	4.21	3.90	4.67	3.01	1.35	0.77	0.54
May-07	0.35	4.19	3.94	4.68	3.01	1.36	0.77	0.61
Jun-07	0.35	4.19	4.05	4.68	2.99	1.36	0.77	0.44
Jul-07	0.40	4.18	4.05	4.68	3.00	1.36	0.77	0.44
Aug-07	0.44	4.20	4.11	4.69	3.02	1.37	0.77	0.49
Sep-07	0.43	4.21	4.21	4.71	3.02	1.38	0.78	0.51
Oct-07	0.44	4.27	4.19	4.74	3.05	1.58	0.78	0.53
Nov-07	0.50	4.33	4.28	4.84	3.10	1.81	0.78	0.53
Dec-07	0.51	4.36	4.45	4.91	3.12	1.88	0.78	0.53
Jan-08	0.51	4.47	4.75	5.32	3.21	1.97	0.78	0.59
Feb-08	0.53	4.71	4.95	5.77	3.28	2.07	0.80	0.60

Azerbaijan WFP Prices in Manat

Month	Labour (Piece Work) (Values Interpolated)	Diesel (1 Ltr)	Wheat Flour (1 Kg)	Sugar (1 kg)	Sunflower Oil (1 ltr)	Local Potatoes (1 kg)	Standard Mutton (1kg)
Sep-06	1.03	0.36	0.26	0.66	1.26	0.35	4.31
Oct-06	1.03	0.36	0.28	0.67	1.21	0.41	4.31
Nov-06	1.03	0.36	0.28	0.70	1.20	0.40	4.20
Dec-06	1.03	0.53	0.29	0.67	1.21	0.50	4.40
Jan-07	1.05	0.54	0.30	0.69	1.23	0.56	4.40
Feb-07	1.07	0.54	0.28	0.68	1.21	0.55	4.31
Mar-07	1.10	0.53	0.28	0.68	1.20	0.65	4.31
Apr-07	1.13	0.48	0.29	0.62	1.18	0.70	4.45
May-07	1.16	0.45	0.29	0.64	1.20	0.40	4.55
Jun-07	1.18	0.45	0.31	0.61	1.28	0.42	4.58
Jul-07	1.21	0.45	0.43	0.65	1.24	0.44	4.56
Aug-07	1.23	0.45	0.39	0.66	1.28	0.41	4.70
Sep-07	1.28	0.73	0.37	0.71	1.29	0.49	4.69
Oct-07	1.34	0.45	0.46	0.65	1.66	0.53	4.65
Nov-07	1.39	0.45	0.46	0.68	2.06	0.55	4.76
Dec-07	1.44	0.45	0.50	0.75	2.08	0.75	5.08
Jan-08	1.64	0.45	0.52	0.70	2.08	0.71	5.60
Feb-08	1.85	0.45	0.52	0.73	2.40	0.73	5.63