JOINT FAO/UNICEF/WFP ASSESSMENT:

FOOD SECURITY, CHILD NUTRITION, AND AGRICULTURAL LIVELIHOODS OF CONFLICT-AFFECTED PERSONS IN GEORGIA

FEBRUARY –MARCH 2009

Joint FAO/UNICEF/WFP Food Security, Child Nutrition and Agricultural Livelihoods Assessment. February 2009, Georgia

EXECUTIVE SUMMARY

In August 2008, armed conflict erupted between Georgia and the breakaway region of South Ossetia, followed by Russian military intervention. Some 130,000 people were displaced. This sudden and unforeseen influx of internally displaced persons (IDPs) created an instant need for humanitarian assistance. The Government of Georgia and the international community were quick to respond; temporary shelter, food and basic items were rapidly provided. Upon withdrawal of Russian forces in October, the majority of IDPs returned to their homes but some 26,000 people could not. Rapid assessments confirmed the need for humanitarian relief, as most of the IDPs remaining in collective centres were fully dependent on outside assistance. Many of those who were able to return to their homes found their livelihood assets damaged or destroyed, and all suffered a major loss of harvest income.

This assessment aims to provide an update of all conflict-affected people: some 8,000 remain in collective centres in Tbilisi and Gori; some 18,000 have now been resettled, and some 60 villages in the adjacent area remain affected. This study focused on food security, child nutrition and agricultural livelihoods in adjacent areas, resettlements and collective centres.

Results

In the adjacent areas, the main impact on livelihoods has been the loss of 2008 harvest income. Re-establishing pre-conflict agricultural production levels will require agriculture and cash inputs and credit facilities. Food or income support will be needed until harvesting starts in 2009. The most vulnerable should receive continued assistance. For the rest of the returnees, low-tech, labour intensive food and cash for work programmes that increase sustainable food security should be identified.

In resettlement areas, food security has been adequate due to on-going provision of basic food rations, bread and now cash. No malnutrition was reported in these areas. However, key to establishing sustainable food security will be the use of the kitchen gardens and land plots allocated by the Government of Georgia to the resettled IDPs. The quality and size of plots vary greatly. Irrigation potential and soil quality studies will determine optimum land use. For development of livestock activities, current plot sizes are not sufficient for grazing and for barns. Kitchen gardens should be developed and inputs provided. Improving rainwater management and digging wells will increase water availability. Environmental and hygiene issues should also be addressed urgently as they directly impact food security.

In collective centres, the assessment found food and nutritional security to be adequate, largely due to food assistance. However, significantly higher levels of child obesity indicate that diets are unbalanced and inadequate in dietary diversity. Food assistance will need to continue until livelihoods are restored. It is however important that basic food rations are complemented with fresh food (meat, eggs, fish, dairy, vegetables) and for this purpose, monthly cash disbursements, either through aid agencies or through the Government, must continue.

LIST OF ACRONYMS

ASF	African Swine Fever
CC	Collective Centre
CNFA	Citizens Network for Foreign Affairs (US NGO)
EFSA	Emergency Food security Assessment
ERW	Explosive Remnant of War
EU	European Union
FAO	Food and Agriculture Organization
FCS	Food Consumption Score
FMD	Foot and mouth disease
GDP	Gross Domestic Product
GEL	Georgian Lari (currency)
GoG	Government of Georgia
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Person
MOA	Ministry of Agriculture
MRA	Ministry of Refugees and Accommodation
NGO	Non-Governmental Organization
PRA	Participatory Rapid Appraisal
SWOT	Strengths, Weaknesses, Opportunities, Threats
TAD	Trans-boundary Animal Disease
UN	United Nations
UNICEF	United Nations Children's Fund
WB	World Bank
WFP	World Food Programme

TABLEOF CONTACTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

1.1 Background

1.1.1 Georgia

The Republic of Georgia covers 69,700 square kilometers and has a population of 4.6 million. It borders Turkey to the South, the Russian Federation on the North and the Black sea in the West. The terrain is largely mountainous with Great Caucasus Mountains in the north and Lesser Caucasus Mountains in the south; Kolkhet'is Dablobi (Kolkhida Lowland) opens to the Black Sea in the west and Mtkvari River Basin in the east. There are good soils in river valley flood plains and foothills of Kolkhida Lowland. Natural resources include forests, hydropower, manganese deposits, iron ore, copper, minor coal and oil deposits. Coastal climate and soils allow for important tea and citrus growth. Arable land, however, makes up only 11.51% of total area and permanent crops only 3.79%.[1]

Agriculture employs about 55% of the population and is the main economic safety net for the majority of the population, though the sector provides only about 9% of GDP. On average, food accounts for 75% of a household's annual expenditure. Daily Energy Supply of the extremely poor households is 1,893 kcal, less than the standard requirement of 2100 kcal per person per day. Wheat flour accounts for 50% of total food consumption. Reliance on markets for food purchases is very high. Excluding wheat growing areas, well above 50% of food is purchased. (Source: IDP / IRA – WFP Assessment 2008)

International markets are accessed through the Black Sea port of Poti in the West and land routes with Turkey to the South.

1.1.2 Conflict

In August 2008, armed conflict erupted between Georgia and the breakaway region of South Ossetia, followed by Russian military intervention and renewed fighting in the breakaway region of Abkhazia.[2] Some 130,000 people were displaced; most fled to Gori, the closest urban centre, and to the capital city of Tbilisi. This sudden and unforeseen influx of internally displaced persons (IDPs) occupying "collective centres" (CCs), i.e., schools, kindergartens, and other buildings not designed for accommodation, created an instant need for humanitarian assistance. The Government of Georgia and the international community were quick to respond; temporary shelter, food and basic items were rapidly provided. Upon withdrawal of Russian forces in October, the majority of IDPs returned to their homes but some 26,000 people could not. Rapid assessments confirmed the need for humanitarian relief, as most of the IDPs remaining in collective centres were fully dependent on outside assistance. Many of those who were able to return to their homes found their livelihood assets damaged or destroyed, and all suffered a major loss of harvest income.

[1] Source: Department of Statistics website, Ministry of Economic Development

[2] Since the August 2008 conflict, the former Autonomous Republic of Abkhazia and the Autonomous District of South Ossetia, both officially parts of Georgia, are now called breakaway regions by the Government of Georgia. As such, South Ossetian and Abkhazian authorities are considered *de facto*, not *de jure*. This report refers to the breakaway regions simply as South Ossetia and Abkhazia.

1.1.3 Shida Kartli and the Adjacent Area

The Shida Kartli administrative Region is located northwest of the capital Tbilisi and was the scene of the August conflict. The Region spreads over 5,700 square kilometres with a population of more than 300,000, and prior to the conflict, encompassed South Ossetia as its northern section bordering Russia. However, since the conflict, South Ossetia's declaration of independence from Georgia has been recognized by Russia, though not by the UN or any other country.

Shida Kartli has the highest incidence of poverty (59.4%) of all the Regions in Georgia.[3] According to the WFP baseline assessment of 2004, agriculture in this area is predominantly horticulture and the overall food insecurity level is classified as 'low'.[4] A consequence of the 2008 conflict is the complete closure of South Ossetia to international agencies based in Georgia, and little or no regular access is allowed for local populations. Most villages affected by the conflict outside of South Ossetia occupy the area bordering South Ossetia, known as the "adjacent area".

The HALO Trust and other demining NGOs have been clearing the affected areas in Shida Kartli but at this moment there are still a number of communities where clearance is not complete and risk from damage by explosive remnants of war (ERWs) is still very real.[5]

1.2 Rationale and Objectives

This Assessment is a follow-up to the September/October 2008 Emergency Food Security Assessment (2008 EFSA) of conflict-affected populations. Six months after the 2008 EFSA, this assessment aims to provide an update of conflict-affected people: some 8,000 remain in collective centres in Tbilisi and Gori; more than 18,000 have now been resettled, and some 60 villages in the adjacent area remain affected. This joint assessment combines the expertise of FAO, UNICEF and WFP and focuses on food security, child nutrition and agricultural livelihoods.[6]

Food insecurity, as a consequence of damaged or destroyed pre-conflict livelihoods, remains very high for those in collective centres, resettlement areas and in villages of origin. Six months of humanitarian relief, the return of most IDPs to their villages of origin or to new housing settlements, and the need to rebuild rural livelihoods provide the rationale for this assessment. The goal of the three participating agencies is to move as quickly as possible from a direct emergency response approach to a differentiated vulnerability-based and integrated approach to restoring food and nutritional security.

The objectives of this joint assessment are:

- To provide an integrated update on the status of food security, nutrition and livelihoods among the population affected by the August 2008 conflict now living in collective centres, resettlement areas and affected villages.
- To provide recommendations for improving food and nutritional security in collective centres.
- To assess the potential for rebuilding rural livelihoods and improving overall agricultural and livestock conditions in villages in adjacent areas.

---

[3] World bank, Georgia Poverty assessment, June 2008, report No, 4440 –GE

[4] Prior to the 2005 trade embargo between Russia and Georgia, the main market for produce of Shida Kartli was neighbouring Russia. However, alternative routes through Azerbaijan have since been established.

[5] Halo Trust website and information includes maps of the locations of ERWs: http://www.halogeorgia.org/

[6] Food security exists when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. It covers access, availability and nutrition. See http://www.fao.org/spfs/spfs-home/en/

- To inventory challenges faced in building new rural livelihoods and to provide recommendations on improving food security, livelihoods, and the agriculture and livestock potential in resettlement areas.
- To identify potential interventions to assist all affected communities in transitioning from post-conflict food insecurity into sustainable and food secure livelihoods.

The joint assessment report integrates the findings from all three Agencies, thus providing a clear picture of conditions six months after the conflict. The report suggests ways forward that will harmonise recommended food security, nutrition and agriculture-based livelihood rehabilitation initiatives.

1.3 Methodology

The Assessment was designed to provide focus on food security, nutrition, livelihoods and agriculture issues among three different groups or 'clusters':

- IDPs remaining in Collective Centres (CCs),
- IDPs residing in newly established resettlement areas ('resettlement areas'), and
- people who have returned to their villages in the area adjacent to the de facto boundary zone with South Ossetia (adjacent areas),

The Joint Assessment Team chose a combination of methodologies best suited to each Agency's objectives:

UNICEF assessed the nutritional and health status of children from zero to 59 months of age. The children were randomly sampled from the three clusters and divided into two groups: 1) 1,888 infants and young children from zero to 23 months of age (not stratified by place of residence), and 2) 2,014 children from 24 to 59 months of age from the three clusters. The assessment methodology provides information on undernutrition (stunting, wasting and underweight), overweight children, and infant and young child feeding practices.

WFP assessed household food security. As a follow-up to the 2008 EFSA, WFP interviewed 100 randomly selected households, conducted focus group discussions in resettlement areas, and returned to 20 villages assessed in 2008. The "cluster" methodology will allow comparison of the status of household food security since October 2008, and identify and quantify trends (Annex 5).

FAO assessed rural livelihoods, focusing on agriculture and livestock conditions. Three settlements and 7 villages were selected for extensive assessment and semi-structured interviews. Criteria for using strengths, weaknesses, opportunities and threats (SWOT) methodology included farming systems, market access, infrastructure damage, insecurity and ERW contamination levels, and availability, size, location and quality of farm land. (Annex 2, 3)

2. ADJACENT AREAS: VILLAGES OF RETURN

2.1 Child Nutritional Status

The following provides a general overview of findings for children between 0 and 23 months of age.[7]

2.1.1 Breastfeeding Practices

The data suggest that initiation and exclusivity of breastfeeding in the first 6 months of age fall short of UNICEF and WHO recommendations.
Time of initiation of breastfeeding was available for 518 (27.4%) children; of these, 313 (60.4%) had started breastfeeding within one hour from birth. Time of initiation of complementary feeding was available for 1135 (60%) children; of these, 93 (6.7%) had started before 4 months, 279 (20%) at 4 months, 193 (13.8%) at 5, 487 (34.8%) at 6, and 83 (5.9%) after 6 months of age.

2.1.2 Nutritional Status

Zero to 23 months age group: the survey found a very low prevalence of severe wasting (0.4%) and moderate plus severe wasting (1.4%) that was largely concentrated in the 0 to 5 months age group. The prevalence of excess weight for length is much higher that that of wasting: 18.9% for moderate plus severe and 4.8% for severe, within the same age group
The level of severe stunting was found to be 3.1%, highest in the 18 to 23 months age group. Moderate plus severe stunting was 10.9%.

Levels of underweight are within the limits of the normal distribution for all populations. However, levels of overweight and obesity, as estimated by the distribution of the body mass index (BMI) for age, are more worrying. Overweight plus obesity measured 21.3%, obesity 7.2%, clearly increasing with age and reaching the alarming levels of 42.2% of overweight plus obesity in the 18 to 23 months age group.

In conclusion, compared with the standard WHO population these infants and young children are shorter and much fatter. WHO World Population Standard is defined to reflect the average age structure of the world's population expected over the next generation, from the year 2000-2025.

Twenty-four to 59 months age group: the overall levels of moderate plus severe and severe wasting are low (3.1% and 0.5%, respectively), despite a prevalence of moderate plus severe wasting of 5.9% in the 48 to 59 months age group. Even in these children, excess weight for height is more important than wasting: 9.4% and 2.3%, respectively for the moderate plus severe and the severe categories.
The level of severe stunting is 2.1%, of moderate plus severe stunting 9.3% overall, reaching 12.8% in the 24 to 35 months age group.

As in younger infants and children, underweight is not a problem, with levels below 1%. The levels of overweight plus obesity, and obesity are higher: 13.5% and 2.4%, respectively. Overweight plus obesity reaches 21.1% in the 24 to 35 months age group. The analysis by cluster shows that children 24 to 59 months of age in collective centres have a much higher prevalence of overweight (about twofold) and obesity (about threefold) than children in affected villages.

Overall, the nutritional status of the children studied in this sample does not appear to differ from the MICS 2005 survey. Multi Indicator Cluster Survey was carried out by UNICEF in 2005 (The previous assessment was conducted in 1999)

[7] In this age group, data was not stratified by cluster area. In addition, data for age was missing for 30 children (1.6%), weight for 791 (42%), length for 807 (43%), MUAC for 1417 (78%), and region for 128 (6.7%).

2.2 Food Security and Livelihoods

Village populations dropped temporarily as a result of the conflict. However, IDPs began to return to their homes as early as September 2008 and by January 2009 the majority had returned. The population estimates of mid-February (Annex 8) indicate almost complete return of displaced people. This does not include approximately 8000 IDPs remaining in CCs and 18,000 people housed in settlements.

According to the 2008 EFSA, prior to the conflict the predominant livelihood in the affected villages was crop farming (35% of villages) and horticulture (35% of villages), supplemented by livestock and cereal production for home use. Livestock was not typically used as a major source of income, but as an essential supplement of fresh dairy products for households. Approximately one fifth of the population benefited from income from casual labour, regular salaried employment, pensions and social safety net payments. Engagement in non-farm business enterprises was negligible in rural areas. Constraints faced by villagers before the conflict included unreliable irrigation supplies, lack of access to technical advice, and in some locations a shortage of pasture land. However, villagers had access to diverse markets, and a large majority made a reasonable living.[8]

2.2.1 Farming Systems

Much of the conflict-affected region has some access to irrigation. This allows for diversity in the farming system, which in turn provides some resilience to disasters and conflict. Agricultural production (primarily apples) in Shida Kartli accounted for 12 percent of the national GDP prior to the conflict.[9] However, in some areas, vegetable production was much more significant than fruit production. Livestock and cereal production were important components of the farming system, produced primarily for domestic use and animal feed. Livestock further provided added dietary diversity and enabled families to generate small but regular income through sales of cheese.

[8] IDPs assessments of their families' economic conditions before the conflict indicated that around one fifth classified themselves as well-off, just one tenth as poor and the remaining almost seventy percent as having medium affluence (UNIFEM).

[9] Agricultural-based Livelihoods Assessment and Rehabilitation Formulation Report, October 2008, FAO –USAID.

2.2.2 Present Access to Assets

Access to assets varies across the conflict-affected area depending on the degree of physical destruction, damage and looting of property, the extent to which farmers were reliant on sales of vegetables than fruit, and the situation regarding ERWs.
The loss of financial assets has had the greatest impact on post-conflict livelihoods. People were forced to leave their villages at a critical time in the farming year, unable to irrigate vegetables or harvest most of their cereals and fruits. Loss of income from harvest was highest in vegetable production. The loss of financial assets was far greater for villages subjected to extensive destruction, damage and looting of household items, equipment, jewellery, cars and savings.

The consequence is a critical situation in which IDPs have returned to their villages but lack cash for fertiliser, pesticides, tractor hire and other implement necessary to farm their lands. Those who lost or suffered extensive damage to their houses may need to prioritize rehabilitating their homes before returning to farming. These households are far more vulnerable than the majority of village returnees who suffered losses of the immediate harvest and subsequent income.
Access to productive capital, i.e., natural assets (land, orchards, livestock, hay reserves etc.) and physical assets (equipment, barns etc.) is relatively good. Assessment data in Table 1 indicates that, as of February 2009, the majority of farmers have access to farmland, pasture and seeds for kitchen gardening. The same table shows lower levels of access to tractors, seed for crop planting and fertiliser.

Table 1: Access to Assets as of February 2009

	% of Villages Population with access			
	1-24%	25-49%	50-74%	75-100%
Access to farm land	0	5	0	95
Access to pasture	10	5	5	81
Access to tractors	14	48	19	14
Seed for next season's kitchen garden	19	0	10	67
Seed for crop planting	19	29	38	5
Fertilizer for kitchen garden	38	57	0	0
Fertilizer for crop planting	38	57	5	0

Source: WFP EFSA Database Feb 2009

Two significant constraints to land access remain unresolved. First, farmlands across the border of South Ossetia are no longer accessible, although there are a few instances of farmers making occasional trips to their places of origin and farmland. Second, there are areas still contaminated by ERWs. Where surface clearance has taken place, it is safe to conduct non-ground intrusive farming such as fruit production. However, until ERWs have been cleared from underground, no physical cultivation of the land can be done. This is particularly significant for villages relying on irrigated vegetable production as major sources of income. ERW clearance will not be completed until August 2009; until then, these areas remain unsafe for vegetable farming.

2.2.3 Coping Mechanisms and Changes in Vulnerability

The EFSA 2009 reveals a clear change in quality of life in a number of villages (see village SWOT in Annex 2). Before the conflict, most villagers had enough income to cover basic household expenses, purchase farm inputs, and educate their children. Many were able to improve their homes and standards of living; surplus income allowed the purchase of fridges, TVs, etc. Now, much of what they have goes to meet basic household and remaining livestock needs. Depleted cash reserves have forced many villagers to adopt coping mechanisms detrimental to long-term economic and social recovery.

The assessment found that more than half the population surveyed have resorted to borrowing to meet food needs. Sales of productive assets were recorded in all villages. Sales of household assets were recorded less frequently but this is more indicative of lack of demand. Some farmers were forced to consume seeds. Bartering and payment in kind remain important coping mechanism in many villages. Additional coping strategies include migration of young men to big cities in and beyond Georgia to seek construction work, and withdrawal of sons and daughters from University.

Evidence that people are borrowing from friends and relatives as a coping mechanism suggests that social cohesion and networks in place before the conflict continue to function. The exception is for those who had strong family and trading connections with South Ossetian counterparts. Access to friends, family and business contacts are now very difficult.
The table below indicates the range of coping strategies villagers have engaged in over the last two months. The results also show variation within villages, suggesting that some people are able to initiate horticulture and cereal production.

Table 2: Coping Strategies during February and March 2009

Coping Strategy	% of Villages Population practicing coping mechanisms			
	1-24%	25-49%	50-74%	75-100%
Poor food diversity	0	15	25	75
Increase borrowing	0	30	70	0
Sale of productive assets	25	40	30	5
Sale of HH assets	60	35	0	0
Consume seed	55	30	0	5
Other	20	0	0	0

Source: WFP EFSA Database Feb 2009

2.2.4 Limits to Livelihoods

At present, one key factor limits livelihood options: lack of access to cash or credit. Though people had faced difficulties accessing credit before the conflict (high interest rates, reluctance of banks to lend to small farmers for agricultural purposes, and few micro-finance institutions in the conflict-affected area), the conflict has exacerbated this situation in several ways. First, some lending institutions have ceased giving loans to farmers. Second, farmers unable to obtain formal loans from banks received agro-inputs on loan from private agro-dealers on condition they were repaid after the harvest. Many farmers were unable repay the loans, leaving them in debt and much less likely to be able to access additional inputs from the same dealer.

The lack of opportunities to engage in value-addition and non-farm income generation activities (business, vocational, service provision etc.) continues to limit livelihood options. The diversity of the farming system, however, has the potential to provide the same range of regular and seasonal income generation options to farmers as before the conflict (see villages SWOT in Annex 2).

Communities were asked to identify their greatest needs to restore their livelihoods. The top three priorities relate to agriculture: farm machinery (70%); fertilizers (70%) and irrigation water (50%). Most villages felt the water source from South Ossetia was unreliable and alternate sources must be considered to ensure long term food security. This involves construction of channels and headwork. Some villages require cleaning of existing channels.

2.2.5 Access to Food

Prices in basic food commodities have fallen since the August 2008 conflict. A loaf of bread cost around 0.60 GEL before September and 0.50 GEL after.[10] Wheat prices have dropped by a third. Cooking oil prices have reduced significantly while sugar prices have remained constant.

The conflict rendered markets dysfunctional. The EFSA 2008 captured the reasons as: a) transporters refused to move commodities out of fear of looting b) lack of produce in villages to supply markets, c) most villages were deserted, and d) lack of purchasing power amongst those remaining in villages. By February 2009 markets have been restored, with only one village reporting poor market access and only two complaining of insufficient food commodities for sale. The villages in the adjacent area would normally engage in sale and purchase of farm products with villages in South Ossetia. Since the conflict, however, this trade has been disrupted.

Villagers are still struggling with the restoration of their livelihoods. Kitchen gardens and the next annual crop are still to be planted. Food assistance is continuing and this has lessened the burden of food needs. However, the food assistance consists of dry rations (wheat flour, pasta, beans, oil, sugar and salt) and complementing these foods with meat, vegetables, fruits and dairy is essential. Every village has indicated that most of its population (above 75%) is unable to provide these complementary foods.

2.3 Agriculture

2.3.1 Primary production

The Shida Kartli agriculture sector is characterised by the prevalence of fruit and vegetable production. Apple production represents 80% to 90% of national production. Some villages also have significant peach production. Vegetable growing is more extensive in the south where farmers can easily supply urban markets in Gori and Tbilisi. According to the Ministry of Agriculture, average annual production in thousands of tonnes is: fruits (170), vegetables (150), wheat (45), maize (25), potato (20) and beans (5).

The high concentration of fruit producers and, to a lesser extent, vegetable growers gives potential for development of these two value-chains. The husbandry techniques are characterised by low-density orchards with high-stem trees. Orchards are also used for vegetable growing and hay production.

Availability of quality seedlings is a problem for small-scale farmers unable to purchase seedlings outside Georgia. Domestically produced seedlings are neither certified nor controlled properly. Farmers tend to buy seedlings on green-markets or from unknown origins, and seedlings sold at higher prices by nurseries located in Kareli district are not always of higher quality. As a result, only a few larger farms able to contact foreign seedlings producers have established intensive orchards.

Fodder crops and cereals are cultivated on remaining land. Shida Kartli contributes one-tenth of national wheat production. Farmers tend to use seeds from the previous harvest for 3-5 years. This factor, combined with limited machinery and fertilisers, and poor plant protection measures, results in rather low yields. Wheat and barley are produced mostly for human consumption, while maize plays a major role in animal feeding. All cereal side-products are used to feed animals.

[10] Approximately 1.4 GEL = 1 USD in July 2008 and 1.65 GEL = 1 USD—November 2008

3.2.2Processing

Seven fruit processing plants exist in the region. Some have been established recently with the support of State loans at preferential conditions. With the exception of one German company producing baby food from organic fruits, plants process apples and export juice concentrate mainly to Germany where concentrate is used for juice production. The presence of these companies offers a great opportunity to valorise the entire production including the lower price products, or absorb surpluses in case of extraordinary year harvests. However, the prices paid to the farmers by processors are 4 to 5 times lower than prices for fresh fruit markets.

Table 3: Export of Fruit concentrate (in MT)

Year	2004	2005	2006	2007	2008
Export of juice Concentrate (MT)	2,067	3,317	2,646	5,000	4,200
Source: Georgian Customs					

3.2.3 Marketing

Marketing strategies are rudimentary and rely on traders to collect products for fresh and processing markets. A number of producers with higher volumes and financial resources can transport their products to wholesalers in Tbilisi or Kutaisi, Georgia, Ukraine, Belarus or Azerbaijan. None seem to sell their products directly to retailers. Direct selling is, however, practiced at village level or at green markets for vegetables and dairy products.

The low quality of produced fruit reduces the percentage of fruits that can be sold as fresh products at a higher price. Between 60% and 70% of apple production is sold to processing companies (Source: MoA). The poor fruit quality, the lack of adequate phytosanitary measures and production of varieties with low market demand further restrict market options. With the loss of the Russian market, producers turned towards Ukraine, Belarus and Azerbaijan. However, it is virtually impossible to access alternative markets (e.g. in Western Europe) or even to substitute imported products in selective markets such as supermarkets (see SWOT Analysis in Annex 2).

3.2.3 Farm Power

Access to farm power is generally poor: only 15% of villages reported most of their farmers had access to tractors. Two villages reported that only a quarter of their farmers had access to tractors. A third of all villages reported more than half of their population did not have access to tractors. It must be noted that the number of tractors pre- and post- conflict is similar for most villages though some of those machines are in disrepair. The poor access to tractors reported by villagers is the expression, on the one hand, of the present reduced purchasing power since most farmers usually rent machinery services, and on the other, of the long-standing lack of and non-adapted farm power and equipment (see SWOT in Annex 2).

3.2.4 Access to land

Restoration of livelihoods requires access to water, farmlands, pastureland, farm power and inputs such as seed and fertilizer. Almost all farmers have access to their farmlands. Only five percent of villages indicated restricted access for a fraction of their population. Access to pasture land was more of a problem with 20% of villages listing it as an issue. About 5% villages indicated more than half their pasturelands were inaccessible.

The main reason for poor access was security. Six-hundred hectares (ha) are not yet clear of ERWs, but these areas have been mapped and de-mining activities are ongoing. In some cases, only surface de-mining has been carried out. The concerned areas can be used for certain types of activities but the possible presence of ERWs in deeper soil layers prevents land ploughing. Villagers nearby the

boundary often cannot access their land because of the presence of snipers on the South Ossetian side. In addition, approximately 800 ha of cropland[11] now lay within the boundary area or in South Ossetia and are no longer accessible to returning farmers.

3.2.5 Access to water

All villages have shallow wells used primarily for drinking water and occasionally for kitchen gardens. The water table is high. The shallowest wells have water at 2 meters and the deepest wells have water at 80 meters. As such, it may be possible to increase the number of shallow wells to provide water for kitchen gardens. Tapping into the shallow water table should not affect the water regime of deeper aquifers. However, environmental impacts should be considered before implementation of such measures.

South Ossetia holds headwaters that source irrigation across many of the affected villages. As a result of hostilities, water was diverted leaving many villages without irrigation water. The livelihoods of a large number of farmers depend directly on restoration of this resource. The survey recorded information on availability of irrigation water and if surface water or ground water were possible alternatives. Only 35% of villages reported their irrigation water was fully restored. About 65% of surveyed villages reported irrigation water shortages.

3.2.6 Impact on harvest and income

The conflict prevented farming for 2 to 4 weeks depending on location. The total vegetable harvest was practically lost; crops suffered from lack of irrigation and were subjected to weeds, pest and diseases. In addition, displacement from villages coincided with the main crop harvest season and unattended animals strayed into open fields damaging vegetables and cereals. Current food production comes exclusively from animal origin, mostly dairy. However, there has been a limited distribution of winter wheat seed to about 8000 families in fall with the first crop harvest (cereals) that will take place in June/July 2009. Nevertheless, this is only a fraction of the needs.

Cereals and fodder crops incurred significant losses, though some production could be gathered and stored once farmers returned. Fruit production – the main cash crop for many farmers – suffered in quality of produce. While farmers claim they lost their fruit crops, this can be interpreted as a loss of income rather than the physical loss of the product. Several factors support this interpretation. First, the volume of juice concentrate exported was just 20% less than in 2008, which was a record year. Second, Shida Kartli region accounts for between 80% and 90% of the national production. Third, nearly two thirds of fruit production is typically purchased for processing. Therefore, we conclude that a larger proportion of fruits went to juice concentrate plants last year since the reduced quality prevented farmers from selling their fresh products on the market. This resulted in a reduced turnover by 50% to 60%, a negative gross margin in most cases. Hence, the fruit sector in 2007 only marginally enabled income generation, and did not prevent indebtedness towards agriculture input dealers.

Kitchen gardens are maintained by all families and planting is expected after winter. Most families have seed for their kitchen gardens but lack fertilizer. Only five percent of villages report that farmers have seed for the next annual crop. Every second village reports a shortage of seed. Access to fertilizer for crop planting is very poor with only five percent of villages reporting over half their farmers have access to fertilizer.

[11] Source: International Committee of the Red Cross (ICRC)

2.4 Livestock

Animal husbandry is an essential component of livelihoods for the majority of households in the adjacent area. Livestock provide milk, cheese, meat and eggs for private consumption and contributes to food security and dietary diversity. A household livestock survey conducted in 2005 showed that out of 72,811 households in Shida Kartli region, 50% kept cattle (in average two cattle per household), 5% kept sheep, 28% kept pigs, 1. % kept goats and 65% of households kept poultry. (Source: State Department of Statistics)

On the average, the number of animals per farm is relatively low; about 85 % have less than 3 cattle (only about 3% have more than 5 cattle). About half of the households owned less than 10 poultry. The 2008 EFSA showed the percentages of rural households keeping cattle in South Ossetia and the previous Buffer Zone[12] were 80% and 70% respectively.

Production of livestock and livestock products is largely used for home consumption. Those farming households with 3 or more cattle manage to generate 10 - 20 % of income from sales of livestock products in Gori and Kareli. The livestock production system is extensive, with low yielding animals adapted to the conditions and mainly based on grazing. Pastures are communal and state owned; villagers rotate taking cattle out for grazing. As such, livestock herds freely roam the pastures throughout the country especially during spring and summer. Lack of management, lack of investment into maintenance and irrigation, overlapping of pastures between villages and continuous competition with horticulture has resulted in overgrazed and degraded pastureland and, consequently, low yields.

Georgia has always been at risk of animal diseases, as evidenced by the 2006 Avian Influenza outbreak and the 2007 African Swine Fever outbreak in the Caucasus region. These situations caused serious health problems, economic loss and depletion of livestock throughout Georgia. Foot and mouth disease (FMD) is endemic to the Caucasus region and continues to be a threat to Georgia. Inadequate surveillance systems and sparse epidemiological data on the prevalence of zoonoses (diseases transmitted between animals and humans) and transboundary animal diseases (TADs) may increase risk. The lack of controls for movement of animals across the de-facto boundary with South Ossetia, and a lack of bio-security measures at the farming household level pose an increased risk of TADs that indirectly threaten food security and livestock levels. (October 2008, FAO Assessment Report).

2.4.1 Impact of the conflict on livestock

The Ministry of Agriculture estimates 10,000 dairy cows, calves and bulls, approximately 12 -14% percent of the cattle population in Shida Kartli, were lost during the conflict. Loss of assets such as harvest, money and feed led to a 5 % increase in the sale or slaughter of cattle over the past 6 months. Significant decreases in cattle have resulted in limited milk and cheese production, and subsequent degradation of dietary diversity for a number of households. To prevent additional slaughter or selling of cattle, the FAO emergency supply of animal feed programme provided sufficient quantities of concentrated feed for the most vulnerable households through April 2009.

[12] The 'Buffer zone' was the area in Shida Kartli occupied by Russian troops before they withdrew to the border of South Ossetia.

3. RESETTLEMENT AREAS

3.1 Child Nutritional Status

Overall nutritional figures in the resettlement areas do not differ significantly from the rest of the Georgian population. For details see the analysis in section 2.1

3.2 Food Security and Livelihoods

At the time of this survey, 18,132 people had been resettled in 40 settlements in four Regions: Kakheti, Kvemo Kartli, Shida Kartli and Mtskheta-Mtianeti. Government is constructing houses and allocating land for all IDPs in the new settlements. The number of people in each new settlement varies: the largest settlement houses over 6,000 IDPs and the smallest accommodates only 73 (Annex 8). The survey was conducted in 15 of the 40 areas and covers 13,079 people, representing 72% of the total resettled population.

The settled households are predominantly male headed (78%). About 10% of households reported a member with disability. In the 5-17 year age group there are 55% boys and 45% girls. This ratio reverses in the adult working age group of 18-59 where 45% are men and 55% women. In the above 60 age group men and women are in the same proportion. Most of these IDPs originate from rural areas in South Ossetia and are not able to return to their homes.

3.2.1 Assistance

Nearly all resettled IDPs have received one-off cash transfers and are receiving food assistance on a regular basis. Approximately 70% have land for kitchen gardens (Table 4). At present, the government provides all resettled IDPs with free drinking water and fuel for cooking and heating. All households have a stove for cooking and 80% have access to an oven for baking.

Table 4: Access

Access to	% of resettled IDPs
Land for kitchen garden	68
Land for agriculture/ horticulture /livestock	16
Stove for cooking	100
Oven for baking	78
Functioning sanitary facility	80 (20 primitive)
Access to school within 2 kilometres	41
Access to doctor within 2 kilometres	28

Source: WFP EFSA Database Feb 2009

Drinking water is supplied through pipes (82% of resettled IDPs), trucks (12%) and wells (6%). Electricity and gas are the major sources of fuel (Table 5) with only a small population relying on wood for fuel. Sanitation is adequate for the time being, though there are concerns of groundwater seepage from latrines to the kitchen gardens, and latrines and septic tanks filling up too rapidly. This could become a source of contamination and requires monitoring.

Table 5: Source of Fuel

Source of Fuel	Percentage of Resettled IDPs		
	Gas	Electricity	Wood
Cooking Fuel	44	52	4
Heating Fuel	43	51	6

Source: WFP EFSA Database Feb 2009

All children are attending school. On average, a quarter of children have found schools within one kilometre of their houses. Almost 60% live between one and two kilometres away from their schools and only five percent must travel more than two kilometres.

Access to free medical services and medicine is more difficult. Only 23% of respondents have access to free medicines and medical advice (doctor). Five percent of families have a doctor within one kilometre of their homes and over 70% must travel more than three kilometres.

3.2.2 Food consumption

WFP provides food aid to all the newly settled population; the government distributed a starter package when IDPs arrived in the new settlements. Food rations consist of wheat, pasta, sugar, oil, beans and salt. Intake is calculated as equivalent to 2100 kcal per person per day (in accordance with WHO/SPHERE standards). Whereas each settler receives an adequate amount of caloric intake, the diversity of their diets is poor. The Food Consumption Score captures dietary diversity. A score of less than 21 reflects *poor* food consumption. A score between 21 and 35 is considered *adequate* and above 35 is *good*. About 14% of resettled IDPs have a score of *poor*, 80% score *adequate* and only 6% record a *good* score. Consumption of essential food items not provided in assistance packages is very low. There is no regular complementary food consisting of meat, vegetables, fruit and dairy.

The survey asked families the number of days in a week they consume certain food categories not provided in the food package. About 70% do not eat meat at all. About 60% of families consume vegetables less than twice a week (Table 6). Fruit and dairy are consumed by only 30% of the households. This indicates a very poor dietary diversity that will have serious long-term effects. It is essential that complementary food of meat, vegetables, fruit and dairy are supplied in kind through cash provisions or, ideally, by kitchen gardens and small livestock. A direct cash transfer project starting in February will provide 15 USD per person month to procure the required 300 kilocalories of complementary foods. The programme will cover three months of the winter period.

Table 6: Average Food Consumption of Resettled IDPs

# of Days	Meat	Vegetables	Fruit	Dairy
0	68	34	64	67
1	17	8	14	15
2	10	17	9	7
3	1	12	4	3
4	4	12	2	3
5	0	4	3	0
6	0	1	0	3
7	0	13	4	2

Source: WFP EFSA Database Feb 2009

3.2.3 Livelihoods

Prior to the conflict, the primary occupation for IDPs from South Ossetia was farming, with significant income from sales of fruits and/or vegetables. Most households enjoyed a fairly diversified farming system involving horticulture under irrigation supplemented by cereal and bean production, wine production (for household use) and livestock keeping. Though livestock were kept primarily for household use, they were also an important source of income: small but regular income through sales of cheese or sales of the stock when necessary. People who lived close to Tskhinvali or nearby villages had good access to both local and distant markets. Employment with professional skills and vocational skills was enjoyed by some, and standard of living was perceived to be reasonable or better (see SWOT analysis in Annex 3).

3.2.4 Human and Social capital

Social cohesion appeared to be good, as many residents came from the same or neighbouring villages and knew each other. Connections also exist between settlements. The combination of high education levels and social cohesion will increase the chances of success for joint economic activities. Relations between resettled people and their host villages are good at present. However, relations could change should tensions arise over access to land, water and employment opportunities.

3.2.5 Income and Savings

Most newly resettled households are in the process of establishing themselves and have had little success in their search for employment. Only 13% of households have regular employment and another 23% have access to casual labour. About 80% have no jobs. This is understandable considering the short time they have spent searching for work. More than half (55%) of households receive some sort of government allowance. Less than one percent receives remittances from family/relatives. In spite of multiple income sources, the monthly income of 64% of households is less than 100 GEL (Table 7). Conservative estimates indicate an income of 300 to 500 GEL is required to meet basic needs.

Table 7: Income Sources

Monthly Household Income	% of Households
Less than 100 GEL	64
100-199	26
200-300	6
300<>=500	2
>1000 GEL	2

Source: WFP EFSA Database Feb 2009

IDPs could not carry assets when they fled, though 15% have retained their cars.[13] Moreover, they had been living in collective centres over the last four months and have exhausted their savings. Consequently, 87% of resettled IDPs have savings of less than 100 GEL. Government and non-government assistance during the time they stayed in CCs protected them from incurring large debt (Table 8). As a result, more than 80% of resettled IDP households have minimal (less than 100 GEL) or no debt. This is critical at a time when they are re-establishing their livelihoods and many require credit for farm inputs and capital for small businesses.

[13] See 2008 EFSA

Table 8: Households in Debt

Debt Amount in GEL	% of Households
No debt	76
Less than 100 GEL	6
100-500	5
500-1000	4
>1000 GEL	2

Source: WFP EFSA Database Feb 2009

A large percentage (64%) of households expressed a need for credit to establish small businesses (Table 9). It is encouraging that a sizable number of households are willing to engage in small business if credit were made available. With no assets and little collateral, access to conventional sources of credit (e.g., banks) is limited. External sources, such as Government and international agencies, will need to offer credit at favourable rates to facilitate the growth of small businesses. Since these families have rural backgrounds and are not familiar with the markets, industry or services required in these new places, training and information dissemination will be necessary.

Table 9: Limitations to Income Generation

Main limitation to income generation	% of resettled IDPs
No jobs	81
Lack of credit for business	64
Lack of information	18
No agricultural land	8

Source: WFP EFSA Database Feb 2009

2.3.6 Existing Skills

The 2008 EFSA recorded a high level of education (Table 10) among resettled IDPs. More than half the population had completed their secondary education and about a third had technical schooling. Fourteen percent received university level education. This data suggests a high probability of engaging and succeeding in small businesses, though developing new skills would certainly be required. There appears to be minimal demand for skilled labour in neighbouring villages.

Table 10: Education Level

Education Level	Percentage of Households	
	Household head	Spouse
Secondary	65	56
Technical school	23	20
University	14	14

Source: EFSA 2008/WFP EFSA Database Feb 2009

2.3.7 Work Opportunities

The survey asked resettled IDPs if there were work opportunities within the settlement or within adjacent villages that could be availed. Responses varied depending on the actual location of the settlement (urban/rural), distance to nearest villages, adjacent industrial complexes and knowledge of the resettled IDPs about such opportunities. The respondents perceived work opportunities to be meagre, with construction seen as one of the possible opportunities. Men identified opportunities in construction, labour, and driving. Women expressed opportunities in teaching, medicine (doctors, nurses), accounting and tailoring.

Fencing of kitchen gardens and water supply structures are potential sectors of work in resettlement areas (Table 11). A third of settled areas have construction opportunities in adjacent villages. However, this translates into only 8% of the population. There are more opportunities for fencing in the newly built settlements than there are in villages. The villages require water channels and water harvesting structures to supplement the water shortage caused by the conflict. Settlements also need such structures to provide water to their new farm lands as well as drainage and management of waste waters. Furthermore, labour is needed to prepare newly provided land plots for cultivation. Measures to ensure environmental sustainability of the new resettlement areas will likely also create further demand for labour. It is foreseen that communal pasturelands will also require work.

Table 11: Labour Opportunities

Sector	Percentage of Resettled IDPs	
Labour opportunities for Resettled IDPs	**in Settlements**	**in neighbouring villages**
Labour (farming, construction)	30	35
Drainage system	11	10
Water system	7	11
Fencing	34	15
Kitchen gardens setup	19	-
Other	15	23

Source: WFP EFSA Database Feb 2009

2.3.8 Markets

Shida Kartli is well connected with asphalt roads leading to all villages and settlement areas. Ninety percent of resettled IDPs live within 250 meters of a retail market; nine percent must travel more than 1 kilometre. About 15% of resettled IDPs live within a kilometre of a wholesale market but over 80% travel more than 5 kilometres to the nearest wholesale market.

2.3.9 Land and Water

Lack of water is a key constraint to sustaining livelihoods on government-allocated plots. As such, diverting surface water or harvesting rainwater could offer substantial improvements in the productivity of these lands. Public labour programmes to create these structures would provide unemployment in the short term, and would contribute to long term food security through the creation of productive assets. Pastureland for livestock is severely degraded. Improving water supply through channels or rain water harvesting structures and planting of better grass varieties would improve pasture quality and relieve the current state of overgrazing. Pasturelands require management through community mobilization efforts. Further study will be required on soil and irrigation to determine if lands are appropriate for crop production.

Establishment of kitchen gardens, though an insignificant source of cash income would provide vital nutrients and contribute to dietary diversity of the household. About 70% of households have land on which to plant their kitchen garden. Only urban settlements have access to unlimited amount of water; rural settlements are provided water only for drinking, cooking, washing and bathing. It is therefore urgent to provide adequate water supply to these gardens.

2.3.10 Preferences

Resettled IDPs were asked if they preferred food assistance in cash or in kind. There was a slightly higher preference for assistance in kind. Farming was the most preferred livelihood amongst both men and women (Table 12). A considerable section of the population considered skilled labour and small businesses as their preferred livelihood options.

Table 12: Preferred livelihood

Preferred Livelihood	Household Head	Spouse
Farming	45	41
Skilled labour	16	12
Small business	15	16

Source: WFP EFSA Database Feb 2009

The households were asked what assistance would be required to realize these preferred livelihoods. Most households identified cash, land, training and equipment as required inputs to realize these livelihoods. It is important to note that the cash and land components were modest. Similar findings were recorded in the 2008 EFSA. More than half the respondents indicated a hectare or less of land would be necessary (Table 13). Most households preferred irrigated land, as the lands they left behind in South Ossetia were mostly irrigated. The current land allocations are not yet complete but an inspection of allocated plots revealed that some are of poor quality with limited water, and could only be used as grazing lands.

Table 13: Land requirement

Preferred land size (ha)	% of Households
< 0.5 ha	11
0.5 ha	23
1 ha	17
2 ha	3
More than 2 ha	1

Source: WFP EFSA Database Feb 2009

Of the households indicating cash, about 40% stipulated a monthly requirement of less than 5,000 GEL (Table 14). Only two percent of these considered an amount in excess of 5,000 GEL. These conservative findings are similar to the data collected in the 2008 EFSA.

Table 14: Cash Requirement

Cash Required	$ Equivalent	% of Households
<1500 GEL	1100	19
1500-3000	1100-2200	13
3000-5000	2200-3600	7
5000-10000	3600-7100	0
>5000 GEL	>3600	2

Source: WFP EFSA Database Feb 2009

2.3.11 Priorities of resettled households

In the three rural settlements visited by FAO, there was a strong preference for engaging in farming as a main livelihood activity. To this end, the resettled IDPs seek assistance for irrigation, fencing of kitchen gardens and plots of land intended for horticulture and provision of livestock and resources to build stables. Resettled IDPs would benefit from livelihood inputs that support agricultural activities such as equipment, investment / working capital to hire tractors, purchase fuel, seeds, fertiliser, livestock and livestock feeds. Furthermore, the infrastructure for storage, food processing and marketing network is poor and will require substantial upgrading.

3.3 Agriculture

The size of land plots provided by the Government to each household is not sufficient to sustain livelihoods solely from farming. The Government has stated that each newly settled household would receive a plot of land from 0.6 to 1 ha for agriculture purposes. At present, the areas of allocated plots range from 0.22 and 1.0 ha in area, based on criteria such as land quality and availability.[14] In some settlements the allocated land is several kilometres from the farmers' cottages, leaving resettled IDPs with very limited and not very profitable options.

The quality of the land is not conducive for agriculture activity in many settlements. Resettled IDPs who received extensively overgrazed, degraded pastureland might not have any other option than using their land for pasture. In some cases, the depth of the topsoil might prevent land improvement activities, though farmers may be able to increase grass production and, over time, transform some areas of degraded pastureland into meadows for hay production. However, it will take a few years before fertility is enhanced enough to enable satisfactory food production or a positive gross margin. Additionally, resettlers driven by short-term needs or unable to use the allocated plot could be tempted to sell it, as the value of the square meter can exceed US$ 10 in some locations.

None of the plots visited had irrigation facilities; making a living from this land will be extremely difficult. Villagers will be obliged to use only drought-resistant varieties of cereals, if they are not able or are not assisted to establish irrigation where water sources are available. Common pastureland is theoretically accessible by the entire farmer community. However, it is unknown how this will translate into practice given limitations of natural resources. Competition for natural resources might hamper livestock development

3.4 Livestock

Most resettlements plots are too small for individual ruminant/pig housing. Moreover, ruminants and pigs would significantly contribute to sanitation problems.

Allocated land in at least third of resettlements is adequate only for production of cereals and eventually fodder. Cereal and fodder production is not sufficient to ensure livelihood sustainability, unless value is added through the introduction of livestock. In a few settlements, the allocated lands are pastures and meadows, and are neither suitable for cultivation nor sufficient for grazing. However as these plots are a part of larger grazing areas, livestock production is the only likely option for these locations.
Construction of individual or communal animal housing may be feasible, depending on location. Using existing infrastructure or abandoned facilities (former Kolkhozes and military installations) in the vicinity of most settlements is recommended. Planned restocking activities should include production and storage of animal feed.

[14] The assessment found that 0.8 ha is the most frequent size of land plot per household. (EFSA database Feb 2009).

4. COLLECTIVE CENTRES

4.1 Child Nutritional Status

In collective centres, a significantly higher proportion of overweight and, in particular, obesity was measured in the group of 24 to 59 months of age. This could indicate a lack of dietary diversity. Cash programmes that started at the time of the survey may increase dietary diversity but the effect could not be assessed in this report.

4.2 Food Security and Livelihoods

The 2008 EFSA recorded 127,000 IDPs. By February 2009, most IDPs had returned to their villages, leaving some 8,000 in CCs. This section covers the food security situation of these remaining IDPs. The survey included more than 100 households living in CCs in Tbilisi.[15]

4.2.1 Demographics

Almost all of the IDPs remaining in CCs originate from South Ossetia with a few arriving from the Kodouri corridor in Abkhazia. Seventy-nine percent of households are headed by males. There is no significant change in the male to female ratio recorded in the 2008 EFSA. However, there is a noticeable increase in the percentage of households with disabilities. This was recorded as 22% in September 2008, compared to 27% in February 2009. The increase suggests a higher level of vulnerability among remaining IDPs. Able bodied persons have secured resettlement or have returned to villages leaving behind the less able persons. Figures regarding elderly are encouraging. In September 2008, 71% of households had elderly members. This has now dropped to only 22% suggesting the majority of elderly have returned to their villages. In the 5-17 year age group there are 55% boys compared to 45% girls. In the adult working age group the ratio is almost the same with slightly less men (49%) than women (51%). About 4% of household members were living outside the CCs, mostly in search of work.

4.2.2 Income and Savings

IDPs have now spent several months severed from their primary sources of livelihood. Only 16 percent still own cars.[16] Yet, there have been improvements in income generation. About 12 percent of households enjoy a regular income and another 25% report income from casual employment. More than half (55%) receive government allowance(s) and 2% report receiving some income through remittances. In spite of these multiple sources, 60% of households report a monthly income of less than 100 GEL (Table 15). Conservative estimates indicate an income of 300 to 500 GEL is required to meet basic needs. Almost all IDPs (95%) have no savings (less than 100 GEL).

Table 15: Monthly Household Income

Monthly Household Income	% of Households
Less than 100 GEL	60
100-199	17
200-299	11
300-500	7
>500	2

Source: WFP EFSA February 2009

[15] Collective Centres outside of Tbilisi were not included in this assessment.

[16] A drop from the 20% recorded in September 2008 EFSA.

4.2.3 Assistance

In addition to free housing, families are receiving regular assistance (Table 16). The housing and utilities provided by the government, and the food and non-food aid from non-government sources have helped families avoid serious debt. Over 95% of households have no debt at all and only 2% have debt in excess of one thousand GEL. These households are in good positions to seek credit to start small businesses, but most lack collateral. Banks, the traditional sources of loans, do not appear to be options and external sources such as government or international agencies would need to support their quests for new livelihoods.

Table 16: Assistance

Free assistance received on a regular basis	% of Households
Food	99
Non-food	20
Health care	43

Source: WFP EFSA February 2009

Nearly all IDPs (99%) have access to clean drinking water sourced from municipal pipelines. Some IDP children are not attending school, despite a close proximity to schools. Over 95% of households use electricity for cooking and heating. Since they live in urban settings, all the households are within easy reach of retail and wholesale markets (Table 17).

Table 17: Access to Markets

Retail Markets		Wholesale Markets	
Distance	% of Households	Distance	% of Households
Less than 250 meters	72	Less than 0.5 km	15
250-500	14	0.5-1 km	39
500-1000	14	1-2 km	2
> 1000 meters	11	2-5 km	22
-	-	>5 km	22

Source: WFP EFSA February 2009

4.2.3 Food Consumption

WFP is currently providing full rations to all IDP households. Food rations consist of wheat, pasta, sugar, oil, beans and salt. Intake is calculated as equivalent to 2100 kcal per person per day. The diversity of their consumption is poor. The Food Consumption Score (FCS) indicates 18% of IDPs have a score of *poor*, 67% score *adequate* and only 15% record *good* scores. Amongst vulnerable groups, the lowest FCSs were recorded for households with disabled and elderly members (Table 18).

Table 18: Food Consumption Scores of Vulnerable Groups

	As Percentage of Households within the Group		
Vulnerable Households	Poor FCS<21	Adequate FCS 21-35	Good FCS > 35
Female headed	11	70	18
With children less than 5 years old	5	72	23
With elderly (60 or above)	18	50	22
With disability	15	67	18

Source: WFP EFSA February 2009

The survey asked families the number of days in a week they consume certain food categories not provided in the food package. About 55% do not eat meat at all. About 55% of families consume vegetables less than twice a week (Table 19). Fruit and dairy are consumed by only 30% of the households. This indicates a very poor dietary diversity that would have serious long-term effects. It is essential that complementary food of meat, vegetables, fruit and dairy be supplied in kind or

through cash provisions. Although provision of dry rations have relieved these families of adopting severe coping strategies, about 28% of households report having sent away, in the last two months, a family member in search of incomes and 2% have incurred debt to meet food needs.

Table 19: Average Food Consumption of IDPs

# of Days	Meat	Vegetables	Fruit	Dairy
0	56	40	42	64
1	26	16	23	12
2	13	18	16	13
3	2	6	9	3
4	2	2	4	3
5	0	1	1	0
6	0	0	0	1
7	1	17	5	4

Source: WFP EFSA February 2009

4.2.4 Preferences

Households were asked for their preference regarding food assistance. About half (48%) prefer to purchase their food through direct cash transfers support and a quarter preferred food aid in kind. About a fifth considered both options suitable.

IDPs were asked about their preferred location for resettlement (Table 20). One third of the IDPs would prefer staying in urban areas. Only 29% prefer relocation to rural areas and 11% would prefer either rural or urban. The most surprising statistics are that 18% do not know and 9% do not wish to relocate. The trauma of conflict, displacement, life in collective centres and experience of early resettled IDPs may have left about one fifth of the remaining IDPs unclear on what option they would prefer. That about every tenth household does not wish to relocate at all suggests a poor opinion amongst IDPs of the available resettlement options. It also suggests a new attachment to urban life. Many IDPs have teenage children pursuing higher education in Tbilisi and would prefer remaining in the city to facilitate their education.

Table 20: Relocation Preference

Relocation Preference	% of Households
Relocation to urban areas	33
Relocation to rural areas	29
Either (urban or rural)	11
Do not know	18
Do not wish to relocate	9

Source: WFP EFSA February 2009

These IDPs practiced farming in South Ossetia before being displaced by the conflict. About 40% of the household heads and 30% of their spouses would prefer a return to farming as their primary source of livelihood. Forty-two percent preferred adopting labour as a source of livelihood (Table 21).

Table 21: Preferred Livelihood

Preferred Livelihood	Percentage of Households	
	Head of Household	Spouse
Farming	38	28
Skilled labour	28	13
Unskilled labour	14	12
Small business	9	6
Services	5	3
Other	2	4

Source: WFP EFSA February 2009

Since losing their lands, a chief requirement to realize new livelihoods would be provision of arable land. There is also a sizeable group of IDPs that would consider establishing small businesses. This is encouraging since those wishing to live in urban areas must invest in changing their livelihoods from agriculture. This group would require assistance in skills development and provision of cash for equipment (Table 22).[17]

Table 22: Assistance as Stipulated by IDPs

Assistance Type	% of Households
Land	55
Training	12
Equipment	55
Cash	46

Source: WFP EFSA February 2009

Among households preferring a return to farming, the amount of estimated land needed is quite small (Table 23). About 40% need only half a hectare and 80% require less than one hectare of land. It must be noted that their original farms were predominantly irrigated. These low estimates may also be a realization of limited land options. It could reflect anxiety, where even small land sizes would be better than the present status. These preferences should be interpreted as the bare minimum. Land size is an important determinant of their livelihoods. Providing resettled IDPs with land sizes that merely support subsistence farming would condemn these families to perpetual poverty. Generous land sizes would support development of a middle class. Although these IDPs are too few to impact the overall economy, adding them to the middle class should be pursued as a salient objective of the resettlement process. Thus, larger land sizes should be considered a necessity, not a luxury.

Table 23: Land Sizes

Preferred land size	% of Households
Less than 0.5 hectares	23
0.5 ha	16
1 ha	41
2 ha	2
More than 2 hectares	0

Source: WFP EFSA February 2009

Since some households prefer settling in urban areas and would require cash to establish businesses and purchase tools for crafts, IDPs[18] were asked to estimate what amounts of cash they envision necessary to realize these urban livelihoods (Table 24). About a quarter estimate less than 3000 GEL. As in the case of land sizes, these are modest estimates and more generous allocations should be considered.

[17] Some households indicated more than one assistance type.

[18] From amongst those households preferring a return to farming.

Table 24: Cash Amounts Preferred

Cash Amount	Approximate $ Equivalent	% of Households
Less than 1500 GEL	900	8
1500-3000	900-1800	16
3000-5000	1800-3000	7
More than 5000 GEL	3000	5

Source: WFP EFSA February 2009

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Food aid, complementary food and cash, and livestock feed have permitted a relatively food secure winter for the conflicted affected population in collective centres, resettlement areas and the villages of return. The findings of the study have, however, highlighted that the recovery phase has not yet fully and properly begun. The following outlines the main findings and conclusions of the assessment, followed by a more detailed recommendations section.

5.1.1 Villages in Adjacent Areas

- There is a need for cash injections, credit facilities, and agricultural inputs due to loss of 2008 harvest income and damage to assets
    - Most villagers in the affected areas reported partial or total loss of agricultural income in 2008. The time spent in collective centres further depleted savings.
    - Funding of specific interventions needs to be better aligned with agricultural/seasonal windows of opportunity.
- Securing access to water is key to reinstating pre-conflict diversified food production. Failure to do so could leave 4,000 hectares or more without irrigation for the 2009 season, and lead to new migration patterns or a deeper dependence on food aid.
    - With most water originating in South-Ossetia, uncertainty of supply is a major concern.
- Support is needed for the most vulnerable e.g. communities/individuals with land contaminated by ERWs, and extremely vulnerable individuals (elderly, disabled, widows).
- Some 900 hectares of agricultural land will remain contaminated with ERWs until beyond the 2009 agricultural season.
- The need for alternative livelihoods and special social safety nets for the most vulnerable members of communities is higher in this post-conflict, recovery and rehabilitation phase.

5.1.2 Resettlement Areas

- Targeted programme support is needed to avoid the full dependence on outside assistance protracted into 2010.
    - 81% of resettled IDPs are unemployed.
    - 70% do not eat meat, fruit, dairy or vegetables.
    - 67% of those families with an income earn less than 100 GEL per month.
- There is potential for conflict with neighboring communities over natural resources and access to land, water and employment.
- Only 8% of resettled IDPs expect to find employment in neighboring communities.
- Some plots were communal grazing land before allocated to IDPs.
- Differences exist in quality of distributed land, and size ranges from 0.2 to 0.8 ha.
- Irrigation is a major concern for new land plots and kitchen gardens:
    - There is a large variety in availability of irrigation water for land plots and kitchen gardens: potential should be developed and alternative sources tapped.
- Nutrition: caloric intake is adequate due to food assistance, but there is a concern for lack of dietary diversity. This can be addressed through kitchen gardens, small animal husbandry and cash injections.
    - 70% of survey respondents indicated they do not eat meat, fruit, dairy or vegetables.

5.1.3 IDPs in Collective Centers:

- Remain fully dependent on outside assistance. Three possible durable solutions are integration, resettlement or absorption into permanent social safety nets.
- Due to food assistance, caloric intake is adequate but a serious lack of dietary diversity is illustrated by the following indicators:
  - 55% of respondents do not eat meat
  - 40% do not eat fruit
  - 60% do not take dairy products
  - 55% have vegetables less than twice a week
  - Obesity among IDP children is significantly higher than in the general population.

5.2 Recommendations for the adjacent area

5.2.1 Short-Term

1. Provision of basic food rations should continue until a first post-conflict harvest and a first harvest from kitchen gardens.
2. Introduce Food for Work aimed at agricultural rehabilitation activities in spring 2009.
3. Continue basic food rations for most vulnerable individuals or communities (i.e. for households in ERW areas until cleared and/or security is restored).
4. Provide agriculture inputs / plant protection products to the farmers in the conflict affected area.
5. Provide inputs for production of animal feed and fodder
6. Provide pregnant heifers to the most vulnerable households, with a plan of offspring redistribution to households in need.
7. Provide micro-credit; inject financial resources into the local economy and farming activities.
8. Provide opportunities for engaging in labour-intensive community works to restore agriculture production. Introduce cash for work activities with the aim of restoring infrastructure or rekindling livelihood activities.

5.2.2 Medium and Long Term

9. Rehabilitation assistance should address more long-term issues related to the conflict. Identify and develop alternative irrigation methods:
   - Identify low cost, low technology alternative irrigation methods (via micro-shed management combined with rainwater harvesting)
   - Improve groundwater access for kitchen gardens and animals
   - Promote use of drought-resistant varieties for non-irrigated crops.
10. Utilize food for work and cash for work to facilitate the transition from emergency ration distribution to restoring food security, while ensuring affected families are provided with required caloric intake until harvest-time. Activities should be labour-intensive and should engage the community as a whole in improving common assets.
11. The rehabilitation phase should also restore key sub-sectors of vegetable and fruit, particularly apple production to pave the way for longer-term activities. Such value chain support activities can be done through:
    - Promotion and support to nurseries
    - Introduction of new husbandry techniques: seedlings, IPM, high-density orchards
    - Establishment of demonstration farms and participatory training
    - Development of market linkages, business skills and practical marketing strategy.

12. Complement the state veterinary inspector's surveillance with private veterinarian services to fight against zoonoses and TADs. Strengthen support to private and state veterinary services through:
    - Training for private veterinarians in business management and price formation
    - Training for private and state veterinarians in surveillance, biosecurity and animal disease control and eradication.

13 Upgrade surveillance of TADs and zoonoses. To prevent new outbreaks and improve public health in improving safe food production:
    - Upgrade the control of animal cross-border movement and introduce routine inspection at cattle markets; and strengthen surveillance of TADs and zoonoses and conduct regular surveys on brucellosis
    - Strengthen the capacities of the MoA with training in disease control, outbreak management and epidemiology
    - Draft a strategy for controlling infectious diseases in animals.

14. Establish and strengthen water users associations for irrigation systems management through:
    - Awareness raising and mobilisation
    - Institutional and organizational strengthening
    - Supporting economic sustainability.

15. Strengthen seed sub-sector development to ensure communities have access to safe and quality agricultural inputs, particularly seeds.

5.3 Recommendations for Resettlement Areas

5.3.1 Short Term

1. At present, resettled IDPs are fully dependent on outside help. This situation will change as IDPs start receiving government stipends and when they start harvesting products from the new landplots and kitchen gardens. Direct assistance may need to continue until a second harvest in mid-2010.
2. Start Cash for Work activities in spring 2009, to engage the new communities in communal activities that enhance food security.
3. Stimulate kitchen garden and poultry production. This is particularly important for dietary diversity.
4. Advocate for the protection, promotion and support of exclusive breastfeeding for six months, and of continued breastfeeding up to 2 years of age and beyond
5. Promote adequate and safe complementary foods through the awareness rising activities for parents and caregivers on child nutrition and development from birth to 5 years of age. In addition, also through the provision of complimentary food support to the vulnerable groups.
6. Develop, as soon as possible, agricultural activities on the new land plots.
    - In good quality land plots:
        - If a water source exists, irrigation for horticulture;
        - If no water source exists, for food and fodder crops.
        - Provide agriculture inputs / loans.
    - In poor extensive overgrazed pastureland, through FFW/CFW:
        - Support pasture rehabilitation and where possible establish meadows for hay production
        - (Re-)establish gravity irrigation
        - Where land is not available or of poor quality: non-land bound activities (e.g., apiculture, mushrooms) can be explored; potential markets should be investigated.

- Generate alternative sources of income through credit for small businesses.
- Provide small business training.
- Promote communal pastures.
- Mediate the joint use of communal pasture before new settlers engage significantly in livestock production.
- Promote community mobilization for pasture management.
- Introduce gravity irrigation where possible through FFW / CFW programs.

5.3.2 Medium Term

1. Advocate for use of pastures and access to more land for livestock management. Where pastures are overused and degraded, improved management is needed to sustain production. Where grazing opportunities are limited, provide training in intensive food production and in use of by-products from food industry.

2. Explore opportunities for alternatives to crop production. The quality and quantity of land in some settlements may mean possibilities for agricultural production will be very limited. In any case, non-farm based income generation activities will need to be explored. These include options for establishing and running small enterprises, food-processing and other value-addition activities, apiculture, mushroom cultivation, and creating opportunities for skilled and non-skilled labour.

5.4 Recommendations for Collective Centres

1. Continue food assistance until a sustainable alternative is established. Most if not all collective centres are located in urban areas. As such, options for agricultural activities and food security through farming are practically non-existent.
2. Secure dietary diversity and sufficient micronutrient intake through cash provision for fresh food to complement food assistance packages.
3. Encourage health authorities to promote measures shown to be associated with good nutrition and with the prevention of both under- and over-nutrition.
4. Advocate for protection, promotion and support of exclusive breastfeeding for six months and of continued breastfeeding, adequate and safe complementary foods until at least two years, and provision of fortified products/supplements to the most vulnerable.
5. Provide access to credit for establishment of small businesses.

6. ANNEX

ANNEX 6.1: Joint Food Security, Nutrition and Rural Livelihoods Assessment

Background

In August 2008 a short but intense conflict was fought between Russia and Georgia over the region of South-Ossetia. This caused some 138,000 Georgians to flee from their homes in the war-affected zones (referred to as 'adjacent areas'), and some 30,000 fled to the Russian Federation. Most of the IDPs came to Tbilisi, where collective centres were rapidly established. Since that time, a lot of people have moved back (some 100,000), the government has constructed resettlement areas where resettlement is now taking place and the collective centres in the larger towns, especially Tbilisi, have begun to empty out again.

The UN Country Team, notably FAO, WFP and UNICEF, are planning to do an assessment of the food security, nutritional and agricultural livelihood situation of the affected population, six months after the conflict. Therefore, an inter-agency mission is to be fielded to provide an update on the food security situation, the nutritional status, and the rural livelihoods changes of the affected population. This mission, comprising resource persons from FAO, WFP and UNICEF and with possible participation/observers from ECHO or other UN Agencies is currently scheduled to take place in February 2009.

9 to 13 Feb:	**Assessment design, questionnaire design**
16 to 20 Feb:	**Data Collection and data entry**
23 to 27 Feb:	**Data analysis and presentation of main findings**

Focus areas

There will be three major geographical focus areas:

1. The remaining **collective centres**, in Tbilisi and Gori, where those people will remain that cannot return to their village and could not be resettled.
2. The **Resettlement Areas**: these areas are newly constructed and any infrastructure or economy is lacking. These areas are permanent, and the people are expected to provide for their own food security, after the initial assistance related to the settling in process.
3. The villages in the war-affected zones (**Adjacent areas**): some 100,000 persons returned to their villages in September/October. However, in many cases infrastructure and assets were destroyed. And in most cases the 2008 harvest has partially or fully been lost. Therefore, the situation in these areas should be reassessed with a focus on longer-term food security and re-establishment of pre-conflict livelihoods.

Agencies

The three lead agencies will each be responsible for assessing the issues relevant to their mandates: WFP will focus on household food security; UNICEF will focus on nutrition and child health, and FAO will focus on rural livelihoods, agriculture and livestock issues. Attached are three annexes that describe in more detail the role of each Agency.

WFP

Overall, the WFP team will:

- examine the food security situation in the targeted areas, including an analysis of how it has evolved since the baseline was conducted and how it is expected to evolve as well as any future risks, the main causes, and the capacities of people, communities, the government and other organizations to improve the situation;
- determine if further food, non-food and/or cash interventions are appropriate/necessary for the vulnerable populations;
- determine an update of how the original group of some 138,000 IDPs has now settled into any of the 3 options: staying in collective centre, resettled in new housing area, or returned to original village/area and the implications to their food security.
- where food assistance is an appropriate response option, determine the necessary quantities, as well as the most appropriate interventions, during which period of the year these are most needed, and how they should interface with on-going or future planned programmes.
- Recommend future interventions linked with the JNA findings and aiming to a new WFP project which should start by July 2009 after completion of the actual PRRO.

Roles and Responsibilities

The WFP members will report directly to the Inter-agency Team leader while in the country and closely liaise with the WFP Emergency Coordinator and Head of Programme. The following are the specific tasks of the WFP members of the needs assessment team:

1. Liaise with the UN country team, other humanitarian agencies and NGOs and relevant government authorities, and ensure effective coordination and partnerships in collecting food security information.
2. Consolidate and review available secondary data and information (e.g. from government and other agencies, news reports) on the existing food security situation, including the main geographic areas and population groups affected.
3. Assess the targeting criteria used in the adjacent areas and impact on food security of beneficiaries and non-beneficiaries.
4. Travel to the affected villages, collective centers and resettlement areas to conduct a rapid assessment of food availability, access and utilization, six months after the crisis, and of the possible impact on the population's nutritional status.
5. For the three most vulnerable provinces, using secondary data and input from key informants and field visits, the team will:
   - compile relevant information on trends in socio-economic conditions, including changes in basic services provided by the government (e.g. housing, health, education), in the macro-economic situation, and key policies affecting food security;
   - assess food availability and market conditions, e.g. effects on local and national food stocks, staple food prices, markets, and key food sources;
   - identify people's access to food, including changes in their livelihoods, sources of food and income/entitlements, purchasing power, employment opportunities, assets, and the sustainability of their coping strategies;
   - assess factors related to people's food consumption and utilization including changes in the types of food consumed/diet diversity, and their ability to obtain full nutritional benefit from the food they eat; and
   - in consultation with WHO and UNICEF, identify linkages between food security and nutritional and health status and education, including the effects of access to clean water, sanitation and health services.
   - Advise on impact of safety nets in place for affected populations and projections for the future
6. Develop initial estimates of:
   - the extent and severity of current food insecurity (including current food access shortfalls) and the risk of deterioration in the near future;
   - the capacities of the national and local authorities to cope with these shortfalls, including the use of existing social safety nets;
   - populations in need of immediate food or non-food assistance (if any) and the duration of assistance; and
   - the role markets are playing and could play in enabling access to food (prices, volumes).
7. Consult with the UN Country Team staff and Government/aid agency counterparts to make recommendations on the need for, and actions required to establish, a food security baseline and monitoring system to track changes over time. These functions could be attached to a Government/inter-agency food security monitoring system.

Expected outputs

1. Food security section of the inter-agency assessment report providing a description of the current food security situation, including whether a further external response is required and, if so, the nature of the response and the number of people in need of assistance.
2. Recommendations on arrangements to monitor the food security situation and related food and non-needs with the government/partner agencies.
3. Preliminary inputs and advise for the preparation of WFP Georgia future projects

UNICEF

Overall, the UNICEF team will:

- Assess the nutritional status of IDP children; the children from 0 to 5 years of age will be targeted. Considering UNICEF ongoing project on infant and young child feeding support, UNICEF activities under the Joint Food Security, Nutrition and Rural Livelihood Assessment will be split into the two groups. The first group of activities is aiming at deriving the information on children from 0 to 2 years of age from the assessment already carried out in the frame of abovementioned ongoing project, while the second group of activities considers launch of additional nutritional assessment for the children from 2 to 5 years of age.
  Currently the data on 1800 children (0-2 age group) is collected and the data entering phase is ongoing. The children were sampled from the collective centres and the settlements all over the country. The assessment methodology used will provide the information on undernutrition (stunting, wasting, and underweight), overweight and infant and young child feeding practices (feeding type, initiation of BF, initiation of complementary feeding). The data will be stratified only by gender and age. Unfortunately, the data on micronutrient deficiency can not be obtained.
  In addition to this, as explained above, UNICEF will assess the nutritional status of 2 to 5 years old children. UNICEF will participate in the survey/questionnaire design (to ensure that the questions are not duplicated) and conduct the assessment independently (considering the assessment specificity: measurements etc.). However, the children will be sampled from the villages or the collective centres agreed with FAO and WFP;
- Obtain an overview of nutritional status of IDP children, compare with the country profile and determine an unique character of nutrition problems;
- Determine the relevant response options, where supplements or complementary food are considered relevant, define the necessary quantities.

Roles and Responsibilities

The UNICEF members will report directly to the Inter-agency Team leader while in the country. The following are the specific tasks of the UNICEF members of the needs assessment team:

1. Liaise with the UN country team, other humanitarian agencies and NGOs and relevant government authorities, and ensure effective coordination and partnerships in collecting relevant information.

2. Consolidate and review available secondary data and information (e.g. from government and other agencies, news reports) on the existing situation in the field of nutrition, including the main geographic areas and population groups affected.
3. Travel to the affected villages as well as to the resettlement areas to conduct a rapid assessment;
4. Analyze the collected data and develop the comprehensive report on findings. For the further analysis, the report will be handled to the Inter-agency Team leader.

Expected outputs

1. Child nutritional status section of the inter-agency assessment report providing a description of the current situation, comparing with the existed country profile and determining the impact of displacement on the nutritional status of the children;
2. Detailed recommendations for the external response required linked up with the ongoing or planned programmes in the field of child nutrition.

FAO

Overall, the FAO team will:

- Examine the agricultural livelihoods situation in the targeted areas six months after the crisis, covering livestock, horticulture (kitchen gardens and orchards), annual and perennial crops. This will include an analysis of how the situation is expected to evolve and identification of potential future risks to the agricultural sector and livelihoods, and impact on food security.
- Review the current and projected capacity of individuals, local communities, the government and other actors (CBOs, NGOs etc) to address and ameliorate the agricultural livelihoods situation.
- Analyse new information in the context of the September/October 2008 FAO Agricultural-based Livelihoods Assessment and Rehabilitation Programme Formulation report, UN Joint Needs Assessment, and WFP assessment reports.

- Recommend appropriate agricultural-based rehabilitation interventions (both short- and medium-term) which will enhance food security and rural livelihoods in the affected areas, and which will better inform FAO's provision of technical advice to relief and development partners.

Roles and Responsibilities
Specific tasks of FAO members of the needs assessment team are as follows:

1. Liaise with the UN country team, other humanitarian agencies and NGOs and relevant government authorities, and ensure effective coordination and partnerships in collecting agricultural livelihoods and related information.

2. Consolidate and review available secondary data and information (e.g. from government and other agencies, news reports) on the existing agricultural and rural livelihoods, situation including the main geographic areas and population groups affected.

3. Travel to the affected villages as well as to the resettlement areas to participate in WFP's rapid assessment of food availability, access and utilization, and possible impact on the population's nutritional status. In this context review existing crop (annual/perennial) and livestock farming activities and any other key agricultural-based livelihood activities.

4. Based on secondary data and input from key informants and field visits FAO team will:
   - Consolidate relevant information on trends in crop and livestock farming and other key agricultural-based livelihood activities;
   - Assess existing crop and livestock farming practices, and other key agricultural-based livelihood activities (to include animal feed and fodder, food and any other type of agriculture production);
   - Examine availability of different farm inputs (including machinery, seeds, fertilizers, fuel, tools etc.), and operator access to processing facilities and markets;
   - Investigate price trends on major primary and secondary food products, and the cost of essential farm inputs at different locations within the affected area and resettlement locations;
   - Determine the level of indebtedness of different operators;
   - Identify linkages between income generation from agricultural production and improved food security, consumption and utilization through increased purchasing power, crop variety and self-sufficiency;
   - Identify rehabilitation needs of different agricultural activities, including identification of farmer training requirements.

5. Develop revised estimates of:
   - The extent and severity of damage to the horticulture sector, with specific attention to orchard crops, and the risk of further deterioration in the near future;
   - The impact of ongoing lack of irrigation on cropping practices, and the appropriateness/ability to switch to rain-fed systems and varieties;
   - Damage to pasture and grazing (both communal and private), and availability of animal feed and fodder to support local livestock populations;
   - Likelihood of spread of Transboundary Animal Diseases (TADs) to at risk livestock in target areas;
   - Assess the situation of agricultural labour in target areas, its availability and cost and its implications on production, and hence food security;
   - The role markets are playing (and could play) in improving agricultural-based livelihoods and income generation to improve food security.

Expected outputs
1. Evaluation of the impact of agricultural-related emergency responses since the August 2008 conflict and identification of preliminary results towards early recovery in the sector.
2. Description of existing situation in the agricultural sector, and implications for food security, among populations in affected areas and resettlement locations.
3. Agricultural-livelihoods section of the inter-agency assessment report providing a description of the current agricultural-livelihoods situation, including the nature of additional interventions, estimating likely number of beneficiaries and donor funding required.

4. Programme and project recommendations on interventions aimed at rehabilitation of agricultural sector in affected areas and resettlement locations, including a plan of action.

ANNEX 6.2: SWOT for Adjacent Areas

Strengths	Weaknesses	Opportunities	Threats
Returnees assets in terms of land and fruit trees almost returned to normal	Villagers lack capital limiting their ability to cultivate the land and purchase inputs particularly fertiliser and pesticides. Some villagers are selling productive assets to get cash, consequently eroding their asset base.	Government and different agencies are and could provide some inputs	Quality of pesticides on the market considered low Better coordination of assistance to villages essential
A large portion of the land is irrigable and under irrigation systems. Some irrigation systems rely on rivers and other water sources under Georgian government control.	Lack of maintenance of the primary and secondary channels.	GoG constructing headwork and pumping system on Georgian controlled territory, which should allow control over water flow and availability.	Intake of Tiriphoni and Saltvisi main canals located in Tskhinvali controlled territory. There is a higher likelihood that water supplies from SO will be interrupted or may cease to flow than prior to the conflict. On-going risk of sabotage due to the fact that part of the Tiriphoni canal passes through SO territory to the east of Tskinvali,
Returnees have the skills to return to their major livelihood activities	Returnees lack technical knowledge and information about modern agricultural husbandry.	Assistance provided and planned for returnees (winter wheat, animal feed, vegetable seeds, fruit seedlings, etc.) by various agencies	No advisory services available. Advisory services provided by private agro-dealers of variable quality.
Almost all villagers have previous animal husbandry experience. Most villages still have some livestock so stock can be gradually built up.	Livestock production is limited by a shortage of feed in some (but not all) villages. Many villages no longer have enough pastureland, and the pastureland that remains is largely degraded. Due to lack of feed animals are highly susceptible to transboundary animal diseases and zoonoses.	Assistance being provided in terms of animal feed. Possibility to provide assistance involving pasture rehabilitation. Commitment of the Veterinary Supervision Department to strengthen surveillance and control of TADs and zoonoses. Availability of private veterinarians who can be recruited to help in control and eradication animal diseases.	Possible cross-border movement of animals can cause an outbreak of TADs and zoonoses. Lack of efficient disease reporting system and reliable information that enables risk based diseases control and eradication. Limited number of state veterinarians at the district level. Limited capabilities of state and private veterinarians. No compensation and stamping out policy.
	Indebtedness to banks and private agro-dealers preventing further access to credit for inputs, combined	Availability of micro-finance options in conflict-affected areas likely to increase in the near future. Some institutions	Post-war cessation of provision of credit to agro-business/small farmers by many lending agencies

	with loss of cash/capital/savings	rescheduling repayment deadlines to 2010.	
Villagers have access to a diverse farming system (vegetable and fruit production, livestock, cereals, grapes…) – this reducing vulnerability	Low productivity and yields reduce profitability. Low household hectares under production means that marketing systems are inefficient.	Varied farming system provides scope for supporting a return to normal farming practice from several angles at once.	Lack of coordination among agencies providing support could reduce harmonisation of, and synergy between, livelihood supports from different agencies.
	Opportunities for villagers largely limited to agriculture. Very little scope for villagers to engage in value-addition and non-farm income generation activities.	Outside assistance could seek to support value-addition activities or build skills in non-farm income generation activities	The Georgian financial and economic situation, set within the global financial crisis, is already impacting on employment opportunities
Villagers employing various coping mechanisms and succeeding in cutting down costs.	Sale of productive assets depletes asset base. Future generation depleted through youth going to work elsewhere in and beyond Georgia (e.g. Russia). Possible negative impacts on students that have been withdrawn from University (50% reported in some villages) due to inability to pay fees, and consequent wider impacts on household economy and the nation.		
High concentration of fruit producers in the conflict-affected region gives potential for development of the value chain.	Low quality of produced fruit reduces percentage of fruits that can be sold as fresh products at a high price. Overall poor quality of fruits restricts market options e.g. to Europe Lack of modern varieties and adequate phytosanitary measures restrict market options e.g. to Europe	Several juice-processing factories functioning presently, including some relatively modern plants.	Fluctuating prices for fruit concentrates on the world market. Financial and economic crises at major fresh export market (Ukraine) Outdated technologies at the processing facilities prevent production of high value final product

.

ANNEX 6.3: SWOT for Settlements

Strengths	Weaknesses	Opportunities	Threats
Strong sense of social cohesion amongst settlement dwellers and to a large extent between settlements and their host villages (at present). Also some connection with place of origin in some cases. In some cases settlers have friends and relatives in nearby settlements, possibly opening up opportunities for joint economic activities	Connection with place of origin could lead to lack of interest in starting a new life in the new location.	Level of social capital enhances opportunities for settlers to engage in joint enterprises and for access to casual labour and other (for instance teaching) opportunities in the host village.	In the medium term possible competition for jobs, pastureland and drinking water may erode the present level of social capital.
Varied skill base amongst settlers – mostly farming but also teachers, nurses, skilled labour etc. This combined with willingness (amongst some) to engage in a range of income generation activities.	Settlers with skills in construction, joinery etc. have no tools or workshop.	Agencies/Government could provide tools, and further vocational and small enterprise training as well as start up grants or loans.	Local, national and international financial conditions may reduce employment opportunities nearby.
Some settlers own trucks that can be used for products transports	Very limited opportunities to produce for market As newcomers, the settlers do not yet have strong networks for marketing. No storage or marketing infrastructure	Most settlements are located close to main roads, enhancing access to market Settlements close to villages might be in position to link with the traders collecting products from local farmers	Settlements distant from villages might be cut off commercialisation channels as long they do not reach production volumes threshold
Resettled people keen to grow vegetables and have the skills to cultivate kitchen gardens	Settlers lack capital for fertiliser, seeds and other required inputs	All households in settlements have a plot of land for kitchen gardening and households have been given hand tools. The Government of Georgia may provide inputs to all settlers for their kitchen gardens.	In some cases the land is poor. There is no provision for irrigation. Even, for Kitchen garden the problem of irrigation might prevent intensive production, as the daily quantity of water provided to the settlements is insufficient. There is no fencing (so "dogs may dig up my garlic") and chicken cannot be kept. Hand tools reported to be of poor quality.
Many settlers have a farming background and are keen to engage in horticulture and cereal production again. Some settlement receive good quality land	Settlers do not have any equipment or capital to hire tractors, purchase fuel, seeds, fertiliser, livestock and livestock feeds. Some settlements received extensive overgrazed degraded pastureland. This leave very limited and not very profitable options to the settlers	Some settlements have allocated farmland from the GoG (plans are that all should be allocated land). Common pastureland is in theory accessible by the entire farmer community. However, local farmers might not consider newcomers belonging to it. Competition for natural	The Government stated all settlements would receive agricultural land. However, some settlements might not receive the land or will be receiving very poor quality or distant land plot. Once, settlers have received the land, they could be tempted to sell it, as the value of the m2 can reach US$ 10 in the are of some settlements

	In some cases allocated land is several kilometres from the settlement. None of the plots visited had irrigation facilities; making a living from this land will be extremely difficult without this. Villagers will be obliged to use only drought-resistant varieties of cereals.	resources might hamper livestock activity development	
Many settlers used to keep livestock and they are keen to keep livestock again, both for consumption and marketing purposes.	Livestock ownership in the settlements is extremely limited or non existent. Lack of space for building stables and feed storage facilities inside settlements. Keeping animals inside settlements could create serous hygienic and environmental problems.	Possibility of using communal pasture for grazing livestock. Possibility of building communal stables located close to the settlement and used by all of them.	Competition between settlers and local farmers in using communal pasture might hamper livestock activity development in the settlement
	Lack of capital to engage in farming or enterprise start up	Possibility of providing special targeted micro-finance to people living in settlements	Lacking collateral, it may be difficult for settlers to access credit lines.
All settlements are located next to host villages or in towns, providing relatively easy access to education, health and other facilities	Settlers lack the finance to purchase school books for their children.	Possibility that qualified teachers and nurses in settlements could gain employment in their host village clinic and school	
Presently settlers are being provided with basic services, this will be helping to relieve stress and trauma freeing up settlers to begin to focus on the way forward	Provision of free food, utilities and other services may create dependency amongst the settlers, hindering their efforts to develop sustainable livelihoods.	Settlers presently being provided with free electricity, fuel wood and water from the Government, and food rations from WFP. Agencies could support communities to develop woodlots	Food rations will cease at some time as may free provision of utilities. It may be difficult to source fuel wood locally from sustainable sources in future.

ANNEX 6.4: Proposed response for livelihood restoration and food security

Villages in the adjacent area

Timeframe	Issue	Action	Implementer
Short-term	Lack of working capital for crops	Last distribution of agricultural inputs and animal feed in spring 2009 in villages	FAO / NGOs
		Distribution to vulnerable HH, who will be able resume cropping once demining activities are completed or once security risk due to proximity of the boundary is not a threat anymore	NGOs
		Provision of (micro-) credit	MFIs and banks
	Lack of irrigation	Rapid Hydro-Geological Survey	FAO
		Groundwater access improvement for kitchen gardens. Digging wells in areas where the water table is easily accessible Demonstration of rainwater collection with low technology alternative irrigation methods	FAO/NGOs
Medium-term	Lack of working capital for crops	Provision of (micro-) credit	MFIs and banks
	Lack of irrigation	Promotion and establishment of micro-shed management to create an alternative to the existing irrigation system through rainwater harvest schemes - Community based approach - FFW and CFW - Training	FAO / WFP / local (international) NGO / GoG
		Promotion of drought resistant varieties	FAO / NGOs / GoG
	Low profitability of cash crops	Support fruit and vegetable value chains with adapted technologies and know-how: - Demo orchards and nurseries - Market linkages - Advisory services (Field Farm Schools and Farm Business Schools) - Agriculture Machinery and Equipment repairs	FAO / local NGOs / GoG
	Limited surface and low quality pastureland	Enhanced pasture management through community based approach and melioration measures (fertilisation, irrigation) and introduction of rotation systems of pastures	FAO / local NGOs
	Loss of livestock and lack of financial means to restock	Distribution of pregnant heifer to vulnerable HH without and who lost cattle during or after the conflict	FAO / INGOs
	Increased risk of TADs	Upgrade the surveillance of TADs and zoonoses	FAO / GoG
	Lack of systemic veterinarian system	Support private and state veterinarian services. Training for technical and business management (for Private veterinarians) skills	FAO / GoG
	Lack of irrigation	Build capacity of water users and establish new water users association in order to achieve irrigation cost recovery	FAO / local NGOs / GoG / State owned company

Resettlements

Timeframe	Issue	Action	Implementer
Short-term	Lack of working capital for crops	Provision of vegetable seeds to resettlers in Spring 2009 and in fall for winter wheat	GoG / FAO / NGOs
		Provision of preferential loans	MFIs / INGOs
	Food aid dependence	Increase food security through intensive kitchen gardens growing, including provision of inputs (seed, fertilizer, and tools), secured water supply, guidelines / info on intensive growing practices and fencing. Improve best farming practices know-how transfer mechanisms	FAO / NGOs / GoG
Medium Long	Lack of irrigation	For resettlers who received land with soils appropriate for high value crops (e.g. vegetables) and having access to water sources: Introduce greenhouse projects for select settlements with tailored irrigation solutions Provide irrigation equipment (pump, pipes) and capacity building to water users associations to manage and ensure sustainability of irrigation schemes FAO / Local NGOs	FAO / WFP / local NGOs
	Poor extensive overgrazed pastureland	Soil quality Study of land allocated to resettles as well as pastureland accessed in the region	FAO
		For resettlers who received poor quality land (often overgrazed communal pastureland): Pasture rehabilitation and where possible establishment of meadows for hay production (Re-)establish gravity irrigation and other alternative methods of irrigation (FFW / CFW)	FAO / WFP / local NGOs
	Constraints limiting land use	For resettlers who received land with medium quality soils or no access to water: Demo-fields and training in rain harvesting techniques, adoption of drought resistant varieties and soil fertility enhancement. Greenhouse for intensive vegetable production.	FAO/NGOs/GoG
	No animal products and no financial means for investing in livestock	Provision of pregnant heifer to HH with children under 10. Provision of small animals (i.e., goats, rabbits, chickens).	FAO / INGOs / GoG
	Joint use of communal pasture by resettlers and local farmers	Mediate the joint use of communal pasture before new settlers engage significantly in livestock production. - Community mobilization for communal pastureland management - Gravity irrigation where possible (FFW / CFW)	FAO / WFP / local NGOs
	Lack of infrastructure for livestock production	Establishment of communal barns for cattle and animal feed storing facilities	FAO / INGOs / GoG
	Land inappropriate for agriculture activities or not made available to resettlers	Promote non-land bound activities (Apiculture, Mushrooms) - Market surveys - Mix of in-kind grant and loans for investments - training in technical and business management skills	FAO / MFIs / Local NGOs
		Generate alternative sources of income through credit for small businesses	MFIs

Collective Centres

Timeframe	Issue	Action	Implementer
Short-term	No income opportunities; fully dependent on assistance	Continue to provide basic food rations plus cash assistance for complementary, fresh, food to ensure micronutrient balance.	WFP, GoG
Medium		Provide durable solutions for all IDPs in collective centres	GoG

ANNEX 6.5: Stratification (Clustering) of Resettlement Areas

During the baseline EFSA conflict, affected rural areas and IDPs mainly staying in the communal centres (CC) of Tbilisi were studied. By March 2008, most of the inhabitants of the adjacent area (formerly buffer zone) have returned to their homes. In addition, government, during September December of 2008, has managed to build the new settlements for those IDPs who were mainly from the areas of the Former South Ossetia and resettled around 18,000 people in these new houses.

The follow up EFSA studied all three groups of the conflict affected population. IDPs still staying in the CC, IDPs reallocated to the new settlements and the villages of the adjacent area.

For assessing the food security situation of the IDPs in the CC face to face interviews were conducted in Tbilisi CC amongst the randomly selected 100. The same methodology was use to study the IDPs in the settlements. Another 100 randomly selected households were interviewed in 15 different settlements.

The survey has found out that reallocation places were different from each other based on their locality: urban or rural, size, vicinity to the neighbouring developed or remote village or city, opportunities to have access to fertile land, irrigation and portable water. Therefore, the 36 settlement were clustered into 14 groups[19] and assessed using the Settlement Level Questionnaire, which was filled out using the focus group interview technique.

	Region	District	Village	Cluster
1	Kvemo Kartli	Bolnisi	Bolnisi	**Cluster 1**
2	Kvemo Kartli	Marneuli	Shaumiani	
3	Kvemo Kartli	Tetritskaro	Koda	**Cluster 2**
4	Mtskheta Mtianeti	Dusheti	Bazaleti	**Cluster 3**
5	Mtskheta Mtianeti	Mtskheta	Saguramo	
6	Mtskheta Mtianeti	Mtskheta	Tsinamdzgvriantkari	
7	Mtskheta Mtianeti	Mtskheta	Saguramo	
8	Mtskheta Mtianeti	Mtskheta	Saguramo	
9	Mtskheta Mtianeti	Mtskheta	Tsinamdzgvriantkari	
1	Mtskheta Mtianeti	Mtskheta	Frezeti	
1	Mtskheta Mtianeti	Mtskheta	Tsilkani	**Cluster 4**
1	Mtskheta Mtianeti	Mtskheta	Tserovani	**Cluster 5**
1	Shida Kartli	Gori	Skra	**Cluster 6**
1	Shida Kartli	Gori	Berbuki	
1	Shida Kartli	Gori	Khurvaleti	
1	Shida Kartli	Gori	Shavshvebi	
1	Shida Kartli	Kareli	Mokhisi	**Cluster 7**
1	Shida Kartli	Kareli	Akhalsofeli	
1	Shida Kartli	Kaspi	Metekhi	**Cluster 8**
2	Shida Kartli	Kaspi	Teliani	
2	Kakheti	Lagodekhi	Lagodekhi	**Cluster 9**
2	Kakheti	Sagarejo	Sagarejo	
2	Kakheti	Telavi	Telavi	
2	Kvemo Kartli	Gardabani	Gardabani	**Cluster 10**
2	Shida Kartli	Gori	Karaleti	**Cluster 11**
2	Shida Kartli	Gori	Tsmindatskali	

2	Shida Kartli	Gori	Gori	**Cluster 12**
2	Shida Kartli	Gori	Kvernati (city)	
2	Shida Kartli	Gori	Gori	
3	Shida Kartli	Kareli	Kareli	**Cluster 13**
3	Shida Kartli	Kareli	Kareli	
3	Shida Kartli	Khashuri	Surami	**Cluster 14**
3	Shida Kartli	Khashuri	Surami	
3	Shida Kartli	Khashuri	Surami	
3	Shida Kartli	Khashuri	Khashuri	
3	Shida Kartli	Khashuri	Chumateleti	

The survey in the rural areas of the former buffer zone looked into the indicators, which were assessed during the baseline. 21 villages 7 each ranked to be the most moderate and less food insecure in September 2008 were assessed using the village level questionnaire filled via focus group discussion interview.

ANNEX 6.6: Questionnaires

QUESTIONNAIRE FOR IDPS IN COLLECTIVE CENTRES

Questionnaire #:_____Page 1 of 2

Date _____ Enumerator name _____ Cell Number _____

Region _____ District _____ City/Village _____ Centre Name _____

DEMOGRAPHICS

Head of Household		□ Male □ Female			
Spouse		□ Male □ Female			
Respondent		□ Head of Household □ Spouse □ Other			
Household Size and Age (years)		Less than 5	5-17	18-59	60 and above
In Centre	Male				
	Female				
In South Ossetia or elsewhere	Male				
	Female				
Is any household member disabled? □ Yes □ No					
Origin: □ South Ossetia □ Other					

CURRENT STATUS

Assets	□ Car □ Jewelry	
Income Source	□ Regular Employment □ Casual Employment □ Govt allowance □ Remittance □ other specify _____ □ None	
Monthly household cash income	□ Less than 100 □ 100-199 □ 200-300 □ 300><500 □ >= 500 lari	
Savings	□ Less than 100 □ 100-500 □ 500-1000 □ above 1000 lari	
Debt	□ no debt □ Less than 100 □ 100-500 □ 500-1000 □ above 1000 lari	
Type of assistance received regularly	□ food □ non-food □ health care	
Access to stove □ Yes □ No	Access to fuel for cooking □ Yes □ No	
Access to clean drinking water (20 litres/person/day) □ Yes □ No		
Access to functioning sanitary facility □ Yes □ No Personal hygiene supplies (soap, sanitary cloth/napkin) availability □ Adequate □Inadequate		
Are school age children attending school?	Yes: □ All □ Some □ None	

UTILITIES

Utilities	**Cost**	**Source**
Cooking fuel	□ free □ on payment	□ Gas □ Electricity □ Wood □ Other
Heating fuel	□ free □ on payment	□ Gas □ Electricity □ Wood □ Other
Drinking water	□ free □ on payment	□ Truck □ Spring □ Well □ Pipe □ Other

MARKETS

Distance in meters to nearest retail food market	□ <250 □ 250-500 □ 500-1000 □ >1000
Distance in kilometers to nearest wholesale food market	□ <0.5 □ 0.5-1.0 □ 1-2 □ 2-5 □ >5
Would you prefer food assistance in cash or kind	□ Cash □ Kind □ Both □ Does not matter □ Do not know
Why? _____	

Questionnaire # _____Page 2 of 2

FOOD CONSUMPTION AND DIETARY DIVERSITY

Over the last seven days, how many days did your household consume the following food?									
Food Group	Food Items	Source	Number of Days (Circle one)						
Cereal/Tubers	Wheat, maize, barley, rice, pasta, potato		0	1	2	3	4	5	6	7
Pulses	Beans, lentils, peas, any types of nuts		0	1	2	3	4	5	6	7
Vegetables	Vegetables		0	1	2	3	4	5	6	7
Fruits	Fruits and fruit products		0	1	2	3	4	5	6	7
Meat and Fish	Beef, pig, goat, sheep, poultry, eggs, fish		0	1	2	3	4	5	6	7
Diary	Milk/yoghurt/cheese or other dairy products		0	1	2	3	4	5	6	7
Sugar	Sugar and sugar products		0	1	2	3	4	5	6	7
Oil	Oil, fats, butter		0	1	2	3	4	5	6	7

Source: 1=purchase; 2=aid; 3=borrow/credit; 4=private donation; 5 =other

COPING STRATEGY ADOPTED OVER LAST 2 MONTHS

□ Sale of assets □ family member migrating to find work □ incur credit/debt □ incur credit/debt

RELOCATION: In case of permanent relocation, where would you prefer?

Prefer Relocation to	□ urban □ rural □ either □ Do not know □ do not wish to relocate Why _____
Where: District _____ Region _____ Why _____	

LIVELIHOOD: What livelihood would you prefer to adopt?

Livelihood	Household head	Spouse
□ Farming	□	□
□ Unskilled labour	□	□
□ Homemaker/housewife	□	□
□ Skilled labour specify _____	□	□
□ Small business specify _____	□	□
□ Services specify _____	□	□
□ Other specify _____	□	□

NON FOOD ASSISTANCE: What assistance would be required to realize this livelihood?

Assistance	Cost (lari)
□ Land (Ha) _____ Type □ Irrigated □ Rainfed	
□ Training, specify type _____ and duration □ day □ week □ month □ 6 months □ 1 year □ 2 years □ don't know	
□ Equipment, specify type _____	
□ Cash, specify use _____	

INCOME GENERATION

What is the major factor limiting your income generation? _____

FOCUS GROUP DISCUSSION QUESTIONNNAIRE FOR RETURNEE VILLAGES

This assessment form should be used in close coordination and review with key members of the community (example: the village authorities, community leaders, local health staff, religious leaders, local community based organizations) and take into consideration the need for a balanced representation of women, men and vulnerable groups. Some of the indicators have been **highlighted and underlined** to emphasis there importance. Due to challenges in the field if assessment teams cannot collect answer for all questions then it is suggested to focus on these highlighted key indicators. The security of all participants must be taken into consideration when conducting the assessment.

1. Assessment Team Information

Name of team leader/ organization		Contact Details	
Date of assessment:			

Name of team members	Organization	Phone number
1)		
2)		
3)		

2. Sample Village/Community

Village Name	Community (Sub-district)	**District**

Name of Community Leader: Phone Number:

3. Population data (Village/Settlement level)

3.1 Population of village in July 2008 (prior to conflict) :

3.2 Estimated village population of September 2008:

3.3 Estimated village population in February 2009 :

3.4 Current population as a percentage of prewar population: _____

4. Household food security

4.1 Number of *tractors* in the village:	**Before the conflict**	**September 2008**	**February 2009**

4.2 Price of main commodities?	**Unit**	**Before crisis**	**Sep 2008**	**Feb 2009**
Wheat flour	Kg.	_____	_____	_____
Oil	liter	_____	_____	_____
Sugar	kg.	_____	_____	_____
Bread	loaf	_____	_____	_____

4.3 Are markets accessible? ☐ Yes ☐ No **If Yes, are markets stocked with basic food commodities?** ☐ Yes ☐ No

4.4 Have any of the following coping strategies being practiced in the community over the last month?

☐ Reduce food intake ……1-24% 25-49% 50-74% 75-100%
☐ Eating unhealthy food / less preferred foods/quality……1-24% 25-49% 50-74% 75-100%
☐ Increase in borrowing for consumption purposes ……1-24% 25-49% 50-74% 75-100%
☐ Sale of productive assets (tractor, milk producing cow, land…) ….1-24% 25-49% 50-74% 75-100%
☐ Sale of household assets ……..1-24% 25-49% 50-74% 75-100%
☐ Consumption of seed reserved for future planting ……1-24% 25-49% 50-74% 75-100%
☐ Others (Specify) ……..1-24% 25-49% 50-74% 75-100%

5. LIVELIHOOD

5.1 **Main livelihood of this community is**:
☐ Crop farming ☐ Horticulture ☐ Livestock ☐ Small business ☐ Cottage industry ☐ Urban employment ☐ other

5.2 Is there a well in the village ☐ Yes Depth in meters _____ ☐ No
5.3 If there are more than one wells in the village Depth in meters: Most shallow well _____ Deepest well _____
5.4 If there are no wells, what is the estimated water table in meters: _____
5.5 Does your village have irrigation water shortage? ☐ Yes ☐ No
5.6 Are there surface water sources that could be channeled to the village ☐ No ☐ Yes Explain _____
_____
(source, channel length, water amount)

5.6 Percentage of village population with:

Access to farm land	1-24%	25-49%	50-74%	75-100%
For those with livestock, access to pasture……	1-24%	25-49%	50-74%	75-100%
Access to tractors	1-24%	25-49%	50-74%	75-100%
Irrigation fully restored	1-24%	25-49%	50-74%	75-100%
Irrigation partially restored	1-24%	25-49%	50-74%	75-100%
Irrigation not restored ?	1-24%	25-49%	50-74%	75-100%
Seed for next season's kitchen gardens	1-24%	25-49%	50-74%	75-100%
Fertilizer for next season\s kitchen gardens	1-24%	25-49%	50-74%	75-100%
Seed for next season's crop planting	1-24%	25-49%	50-74%	75-100%
Fertilizer for next season\s crop	1-24%	25-49%	50-74%	75-100%

5.7 For those with no access to farm land, reason
☐ In South Ossetia ☐ Security ☐ UXO/landmines ☐ Other Specify _____

5.8 For households with livestock but no access to pasture, reason
☐ In South Ossetia ☐ Security ☐ UXO/landmines ☐ Other Specify _____

6. Relief effort/assistance

6.1 What do the community members identify as their greatest needs to restore their livelihoods:
1
2
3

QUESTIONNAIRE FOR INDIVIDUAL HOUSEHOLDS, RESETTLEMENT AREAS

Questionnaire #:_____Page 1 of 2_

Date _____ Enumerator name _____ Cell Phone Number _____

Region _____ District _____ City/Village _____ Settlement Name _____

DEMOGRAPHICS

Head of Household		□ Male □ Female			
Spouse	□ Male □ Female				
Respondent		□ Male □ Female			
Household Size and Age (years)		Less than 5	5-17	18-59	60 and above
In Centre	Male				
	Female				
In South Ossetia or elsewhere	Male				
	Female				
Is any household member disabled? □ Yes □ No					
Origin: □ South Ossetia □ Other					

CURRENT STATUS

Resettlement date	
Assets	□ Car □ Jewelry
Income Source	□ Regular Employment □ Casual Employment □ Govt allowance □ Remittance □ other specify _____ □ None

Monthly hh cash income	□ <100 □ 100-199 □ 200-300 □ 300><500 □ >= 500 lari
Savings	□ Less than 100 □ 100-500 □ 500-1000 □ above 1000 lari
Debt	□ no debt □ Less than 100 □ 100-500 □ 500-1000 □ above 1000 lari
Access to oven for baking bread	□ Yes □ No
Type of assistance received since settlement	□ one off cash □ regular cash □ food □ non food □ house □ ag land □ health

FOOD CONSUMPTION AND DIETARY DIVERSITY

Over the last seven days, how many days did your household consume the following food?										
Food Group	Food Items	Source	Number of Days (Circle one)							
Cereal/Tubers	Wheat, maize, barley, rice, pasta, potato		0	1	2	3	4	5	6	7
Pulses	Beans, lentils, peas, any types of nuts		0	1	2	3	4	5	6	7
Vegetables	Vegetables		0	1	2	3	4	5	6	7
Fruits	Fruits and fruit products		0	1	2	3	4	5	6	7
Meat and Fish	Beef, pig, goat, sheep, poultry, eggs, fish		0	1	2	3	4	5	6	7
Diary	Milk/yoghurt/cheese or other dairy products		0	1	2	3	4	5	6	7
Sugar	Sugar and sugar products		0	1	2	3	4	5	6	7
Oil	Oil, fats, butter		0	1	2	3	4	5	6	7

Source: 1=purchase; 2=aid; 3=borrow/credit; 4=private donation; 5 =other

Questionnaire # _____ Page 2 of 2

MARKETS

Would you prefer food assistance in cash or kind	□ Cash □ Kind □ Both □ Does not matter □ Do not know
Why? _____	
In case land is allocated, would your preference for food assistance change? □ Yes □ No	

EDUCATION LEVEL: check highest education level achieved

Level	Household head	Spouse
Secondary	□	□
Technical school (subject) _____	□	□
University (subject) _____	□	□

LIVELIHOOD: What livelihood would you prefer to adopt?

Livelihood	Household head	Spouse
□ Farming	□	□
□ Unskilled labour	□	□
□ Skilled labour specify _____	□	□
□ Small business specify _____	□	□
□ Services specify _____	□	□
□ Other specify _____	□	□

ASSISTANCE: What assistance would be required to realize this livelihood?

Assistance	Cost (lari)
□ Land (Ha) _____ Type □ Irrigated □ Rainfed	
□ Training, specify type _____ and duration □ day □ week □ month □ 6 months □ 1 year □ 2 years □ don't know	
□ Equipment, specify type _____	
□ Cash, specify use _____	

INCOME GENERATION

What is the major factor limiting your income generation?

FOCUS GROUP DISCUSSION FOR QUESTIONNAIRE IN RESETTLEMENT AREAS

Date _____ Enumerator name _____ Cell Phone Number _____
Resettlement Name: _____ **Region _____ District _____**
Circle: Urban Rural
Nearest village or town: _____ Number of people: _____
Distance to nearest school: □ < 1 km □ 1-2 □ > 2 kms
Access to school □ Yes □ No
Distance to doctor: □ < 1 km □ 1-2 □ > 2 kms
Access to doctorl □ Yes □ No

Percentage of Population with Access to:

Access	**Percentage**
land for kitchen garden	
land for agriculture/horticulture	
stove for cooking	
Oven for baking bread	
Functioning sanitary facility	

UTILITIES

Utilities	**Cost**	**Source**
Cooking fuel	□ free □ on payment	□ Gas □ Electricity □ Wood □ Other □ none
Heating fuel	□ free □ on payment	□ Gas □ Electricity □ Wood □ Other □ none
Drinking water	□ free □ on payment	□ Truck □ Spring □ Well □ Pipe □ Other □ none
Water supply	Is it enough for kitchen gardens	□ Yes □ No

MARKETS

Distance in meters to nearest retail food market	□ <250 □ 250-500 □ 500-1000 □ >1000
Transport cost by minibus to retail food market	_____ lari □ no bus service
Distance in kms to nearest wholesale food market	□ <0.5 □ 0.5-1.0 □ 1-2 □ 2-5 □ >5
Cost by minibus to wholesale food market	_____ lari □ no bus service
Would you prefer food assistance in cash or kind □ Cash □ Kind □ Both □ Does not matter □ Do not know Why? _____	

WORK OPPORTUNITIES

Is there a need for construction work in the resettled area? □ Yes □ No

□ construction □ Drainage □ Water system □ Fencing □ Kitchen garden preparation
□ Other specify _____

Are there asset rehabilitation/work opportunities in the surrounding areas (urban) or villages (rural)? □ Yes □ No □ Do not know

□ construction □ Drainage □ Irrigation □ Fencing □ farm labour □ wood collection
□ Other specify _____

What are the major limiting factors to income generation?
1.
2.
3.

What work opportunities are there for men?

What work opportunities are there for women?

ANNEX 6.7: Policy Issues and recommendations

Medium and long-term policies and strategies of the Government of Georgia

The GoG has an overall approach related to the conflict affected population which also includes agriculture rehabilitation, and considering options for repairing the irrigation intake as well as providing a starter kit for with agriculture inputs for some of the IDP settlements. Most likely the government will also distribute fertiliser and fuel nationwide once the dates of anticipated elections will be defined. An Agriculture Strategy was redrafted late 2008 and should be adopted by the Parliament to become an effective tool for planning. However, a national medium term plan drafted by the Ministry of Agriculture could perhaps assist in effective implementation of their strategy. The formulation and adoption of the strategy is one of the requirements of the European Commission (EC) in the frame of the European Integration process. The EC is also requesting Georgia to adopt laws and regulation complying with international standards. Among those standards, the Sanitary and Phytosanitary System (SPS) and the Sanitary and rapid Alert System for Food (RASF) are of first importance for European integration, but undermined by the GoG.

During interview with farmers, concerns were voice about the quality of agricultural inputs (seeds, pesticides and fertiliser) and their wish for more guidance, regulation and control of pesticides and fertiliser as well as official certification of seeds. The farmers also highlighted the need for advice and training. While they mentioned that they tend to seek advice from the best farmers in their communities, they also emphasised the lack of information on new technologies and new husbandry practices. Staff met in the MoA are aware of the need for knowledge and technology transfer but the absence of sufficient financial commitment prevents developments in that direction. Although there are certified and registered veterinarians that can provide adequate animal healthcare, strengthening organised extension service might also improve animal feed production and animal husbandry. At the district level there are 3 to 5 employees working for the National Service for Food Safety, Veterinary and Plant Protection, whereas 1-2 of them are veterinarians. Extension services in this direction would help improve this.

Local authorities

The Gori Governor plays an active role in information sharing and coordination activities. This role should be reinforced as the emergency phase ends and local capacity enhanced. Experience, but also the governance component of the FOSTER project implemented by UNDP, shall play a positive role in that sense.

Evaluation of the planned rehabilitation programme

FAO will distribute vegetable kits through its implementing partners (IPs) to more than 3,000 families. The targeting and the intervention strategy will take into account the different geographic and HH levels of vulnerability. Kits for kitchen garden will assist the most vulnerable areas and HH, while a limited number of seeds will be provided to a limited number of farmers to resume more market oriented vegetable growing in the open-field.

Vulnerability criteria for selection of kitchen garden growers will be chosen taking into consideration lack of access to land because of ERWs and proximity of the boundary with SO, and vulnerability due to extent of damage to houses and other assets.

Changes in assets, vulnerability and consequent coping mechanisms have been captured in this joint needs assessment through taking a livelihoods approach (set within the Sustainable Livelihoods Framework – Annexes 1a and 1b). Furthermore, discussions with key GoG, donor, UN, NGO and

other agency informants in addition to IDPs also provided an understanding of the opportunities and constraints posed to livelihood rehabilitation by the wider policy, institutional and support context.

This section identifies a number of areas for action that are relevant for all three-stakeholder groups (IDPs in collective centres, settlements and returnees to villages). The first two: Coordination and Harmonisation, and the Need for Appropriate GoG Policies, Strategies and Mechanisms, relate to the policy context. The third: Identifying and Addressing Vulnerabilities, addresses three issues of concern relevant to all stakeholder groups: targeting, gender, and disaster risk management.

Gender mainstreaming

Gender mainstreaming – taking gender considerations into account when designing and implementing livelihood rehabilitation programmes and initiatives – is critical so as to ensure that Gender-specific social constraints (time and care burdens, mobility restrictions, lack of assets, and vulnerability to gender-based violence) are addressed and remedied. In addition to mainstreaming gender in such a way that the needs and abilities of women, the youth and the elderly are drawn upon as much as those of men, stand-alone programmes and initiatives may also be needed.

Disaster risk management and enhanced population resilience

As has been noted, despite the diverse farming system in the conflict-affected area, the conflict had a huge negative impact on peoples' finances and consequent ability to rebuild their lives at the present time. This is the case even for those who just fled their village for a short period and did not suffer any conflict related physical damage and destruction. For many HH the only tangible conflict impact consisted in the loss of crops (i.e. a sizeable loss of income), but as mentioned above, losses of assets happened only in a minority of villages. Despite this, households, social networks, and local and central authorities across the whole region have not been able to face the situation and overcome the crisis by themselves.

This lack of resilience must be addressed in order that HHs, the region and the GoG are able to overcome minor disasters in future without relying on international aid. To reach this objective, the forthcoming activities shall consider improving the overall local economy to ensure savings by HH. The second aspect is related to Risk Disaster Reduction strategy or at least practices, by farming communities and local authorities. Eventually, development assistance should help the GoG to address these problems by designing policies and measures conducive for regional economic development, as well to support local authorities in DRR measures. A Disaster Risk Management (DRM) strategy would help to increase the resilience of conflict-affected village returnees and resettled IDPs to future natural or man-made disasters.

Already some DRM activities are being undertaken such as clearance of ERWs and identification of alternative sources of irrigation water, and some of the recommendations made in this joint needs assessment will also contribute to DRM. But a more comprehensive DRM policy and strategy is required. Taking a DRM approach to new settlements will likely lead to programmes that enhance the environment around the settlements through improved water and sanitation management, establishment of fire prevention measures and planting of woodlots and windbreaks.

Environmental issues

Villages and their surroundings in are an agro-environmental conglomerate of available natural resources and needs of a given population size. As such size of villages is usually predetermined by available resources enabling livelihood.

Most settlements will likely compete with existing villages for natural resources, including: firewood, land, pastures, water as well as jobs and infrastructure. Experience shows that if not managed,

diminishing and even depleting of resources is likely and proportional with size of settlements. Such occurrences are usually followed by reduced sustainability and conflicts with the local population.

Environmental burden in form of pollution (faecal contamination, waste effluents and communal waste), in accordance with size of settlements, available infrastructure and available communal services will have light to moderate impact on the environment.

Environmental conditions such as the limited precipitation and lack of snow in 2008/2009 have the potential to become a drought, further resulting in increased irrigation dependency and reduced yields in rain fed crops.

ANNEX 6.8: Tables of Data

ADJACENT AREAS: VILLAGES OF RETURN

Table 25: Population Fluctuation

Village Location			Population			
			Pre-Conflict July 2008	Post Conflict Sep-08	Post Returns Feb-09	Current as % of pre-conflict
Region	District	Village				
Gori	Shindisi	Pkhvenisi	450	20	450	100
Gori	Variani	Akhaldaba	529	80	529	100
Gori	Variani	Variani	524	75	524	100
Gori	Berbuki	Rekha	413	413	413	100
Gori	Berbuki	Sveneti	549	549	549	100
Gori	Berbuki	Kheltubani	1151	1151	1151	100
Gori	Berbuki	Tortiza	375	375	375	100
Kareli	Dirbi	Dirbi	3019	1000	3019	100
Kareli	Breti	Breti	490	200	490	100
Gori	Karaleti	DidiGarejvari	237	237	237	100
Gori	Karaleti	Karaleti	1275	1050	1275	100
Gori	Variani	Sakasheti	375	50	375	100
Gori	Dzevera	Shertuli	120	25	120	100
Gori	Dzevera	Dzevera	468	100	468	100
Kareli	Breti	Aradeti	180	15	180	100
Kareli	Abisi	Abisi	190	45	190	100
Gori	Mejvriskhevi	Kvarkheti	165	165	165	100
Gori	Tkviavi	Tkviavi	840	5	840	100
Gori	Dzevera	Kitsnisi	520	100	520	100
Gori	Megvrekisi	Tirdznisi	220	100	212	98
Kareli	Breti	Tseveri	290	10	290	100

Source: WFP EFSA Database Feb 2009

Table26: Market Access

Village	Access to market	Market stocked with basic food commodities
Pkhvenisi	Yes	Yes
Akhaldaba	Yes	Yes
Variani	Yes	Yes
Rekha	Yes	Yes
Sveneti	Yes	Yes
Kheltubani	Yes	Yes
Tortiza	Yes	Yes
Dirbi	Yes	No
Breti	No	No
DidiGarejvari	Yes	Yes
Karaleti	Yes	Yes
Sakasheti	Yes	Yes
Shertuli	Yes	Yes
Dzevera	Yes	Yes
Aradeti	Yes	Yes
Abisi	Yes	Yes
Kvarkheti	Yes	Yes
Tkviavi	Yes	Yes
Kitsnisi	Yes	Yes
Tirdznisi	Yes	Yes

Source: WFP EFSA Database Feb 2009

Table 27: Greatest needs to restore livelihoods

Village name	First Priority	Second Priority	Third Priority
Pkhvenisi	Farm machinery	Fertilizer/Pesticides	Irrigation water
Akhaldaba	Fertilizer/pesticides	Farm machinery	-
Variani	Fertilizer/pesticides	Farm machinery	-
Rekha	Farm machinery	Irrigation water	Fertilizer/pesticides
Sveneti	Irrigation water	Fertilizer/pesticides	Road
Kheltubani	Farm machinery	Irrigation water	Fertilizer/pesticides
Tortiza	Irrigation water	Farm machinery	Fertilizer/pesticides
Dirbi	Credit	Irrigation water	Tractor
Breti	Farm machinery	Fertilizer/pesticides	Irrigation water
Didi Garejvari	Irrigation water	Fertilizer/pesticides	Seed
Karaleti	Irrigation water	Fertilizer/pesticides	Seed
Sakasheti	Fertilizer/pesticides	Farm machinery	Irrigation water
Shertuli	Fertilizer/pesticides	Farm machinery	Irrigation water
Dzevera	Fertilizer/pesticides	Farm machinery	Irrigation water
Aradeti	Credit	Farm machinery	Seed
Abisi	Farm machinery	Irrigation water	Fertilizer/pesticides
Kvarkheti	Deep wells	Tractor	Fertilizer/pesticides
Tkviavi	Fertilizer/pesticides	Farm machinery	Fertilizer/Pesticides
Kitsnisi	Irrigation water	Farm machinery	Credit
Tirdznisi	Fertilizer/pesticides	Credit	Farm machinery
Tseveri	Farm machinery	Fertilizer/Pesticides	Credit

Source: WFP EFSA Database Feb 2009

Table 28: Well Depth in Meters

Village	Shallow well	Deepest well
Pkhvenisi	20	30
Akhaldaba	7	28
Variani	7	10
Rekha	3	10
Sveneti	2	12
Kheltubani	2	14
Tortiza	3	12
Dirbi	25	37
Breti	5	25
Didi Garejvari	2	12
Karaleti	2	12
Sakasheti	14	30
Shertuli	14	20
Dzevera	11	27
Aradeti	4	11
Abisi	5	9
Kvarkheti	16	52
Tkviavi	12	40
Kitsnisi	10	25
Tirdznisi	78	80
Tseveri	8	23

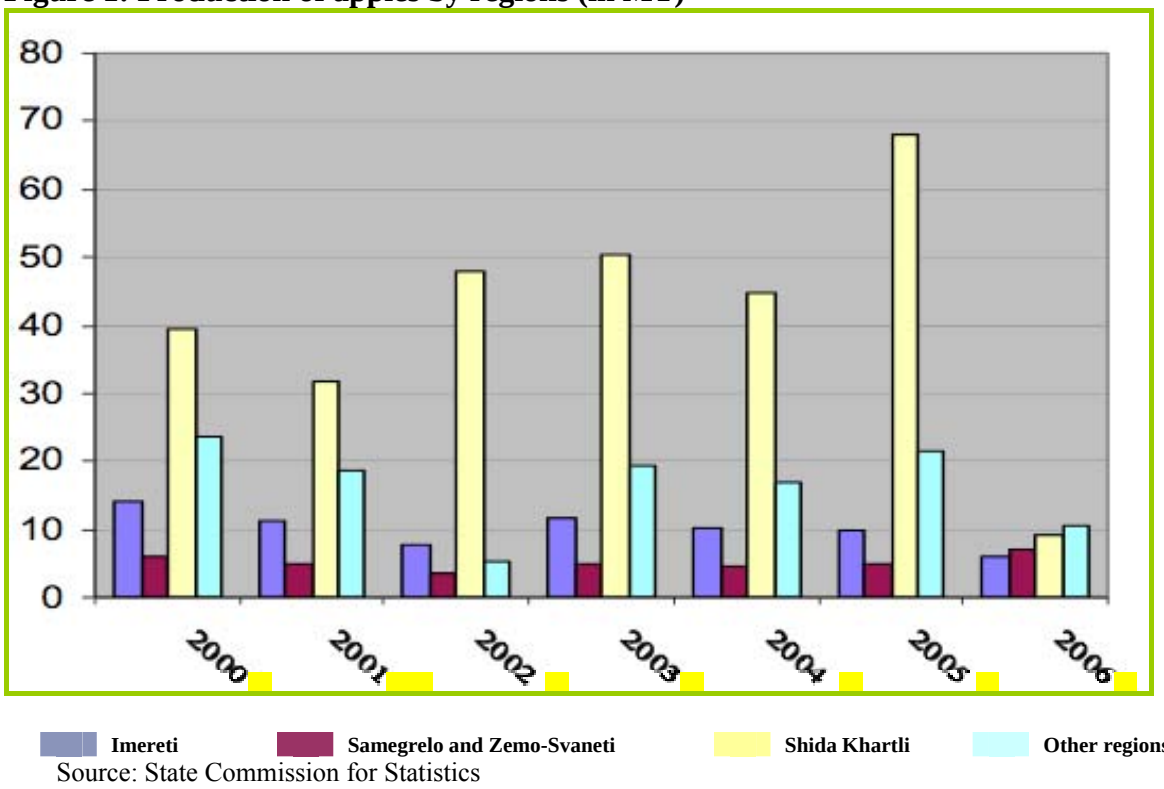
Source: WFP EFSA Database Feb 2009

Table 29: Tractor Availability

Village			Number of Tractors		
			Before conflict	Sep-08	Feb-09
Region	District	Village			
Gori	Shindisi	Pkhvenisi	30	29	29
Gori	Variani	Akhaldaba	28	28	28
Gori	Variani	Variani	32	32	32
Gori	Berbuki	Rekha	5	5	5
Gori	Berbuki	Sveneti	8	8	8
Gori	Berbuki	Kheltubani	30	30	30
Gori	Berbuki	Tortiza	7	7	7
Kareli	Dirbi	Dirbi	13	12	12
Kareli	Breti	Breti	1	1	1
Gori	Karaleti	Didi Garejvari	0	0	0
Gori	Karaleti	Karaleti	16	16	16
Gori	Variani	Sakasheti	25	22	22
Gori	Dzevera	Shertuli	10	5	5
Gori	Dzevera	Dzevera	20	19	19
Kareli	Breti	Aradeti	3	3	3
Kareli	Abisi	Abisi	4	4	4
Gori	Mejvriskhevi	Kvarkheti	1	1	1
Gori	Tkviavi	Tkviavi	30	29	29
Gori	Dzevera	Kitsnisi	40	40	40
Gori	Megvrekisi	Tirdznisi	135	0	0
Kareli	Breti	Tseveri	12	12	12

Source: WFP EFSA Database Feb 2009

Figure 1: Production of apples by regions (in MT)



Source: State Commission for Statistics

Table 30: Crop Calendar

Crop	Sowing time	Harvesting time	Seed rate kg/ha
Wheat(winter, spring)	**Sep./Oct. Feb./March**	**May/June, August/Sept.**	**200-240**
Maize	June/July	Oct.	70-80
Barley	Feb./March	July/August	90-130
Rye	Oct.-March	May/June	35-40
Oat	Feb./March	May/June	120-140
Pulses	March-April/May-	June June/Oct.	120–140
Potato	Nov./Dec. March/April	May/June Sept./Oct.	2-3 MT
Onion	March/April	August	12-18
Tomato	Feb. March	August-Oct.	4-6
Cabbage	March/April	Oct./Nov.	8-12
Red beat	March/April	Sept./Oct.	6-10
Carrot	March/April- June/July	May-Nov.	4-5
Fodder crops	Sept./Oct./March/ April	May-Nov.	168-18

(Source: FAO, Georgia, Agricultural-Based Livelihoods Assessment and Rehabilitation Programme Formulation Mission, October 2008).

Resettlement Areas

Table 31: Number of Resettled IDPs in Surveyed Settlements

Region	District	Settlement Name	# of Resettled IDPs
Kakheti	Sagarejo	Sagarejo	70
Kvemo Kartli	Gardabani	Gardabani	321
Kvemo Kartli	Tetritskaro	Koda	1,259
Shida Kartli	Gori	Shavshvebi	587
Shida Kartli	Kareli	Akhalsofeli	333
Shida Kartli	Kareli	Mokhisi	215
Kvemo Kartli	Bolnisi	Bolnisi	79
Shida Kartli	Kareli	Kareli	469
Shida Kartli	Kaspi	Metekhi	128
Shida Kartli	Mtskheta	Tserovani	6,385
Mtskheta-Mtianeti	Mtskheta	Tsilkani	1,287
Mtskheta-Mtianeti	Mtskheta	Saguramo	246
Shida Kartli	Khashuri	Surami	73
Shida Kartli	Gori	Gori	145
Shida Kartli	Gori	Karaleti	1,482
Number of Resettled IDPs in Surveyed Settlements			13,079

Table 32: Settlement Land Allocation and MoA Seed Package Distribution

#	Region	Rayon	Village	# of HH Received/ to Receive MoA Seed Package	Average Size of Plots Allotted, ha/HH	
					Arable Plots	Plots under Perennials
1	Shida Kartli	Gori	Karaleti	480	0.22	0.16
2			Skra	86	0.30	0.46
3			Khurvaleti	139	0.50	
4			Berbuki	134	0.49	0.31
5			Shavshvebi	177	0.80	
6		Kareli	Akhalsopheli	100	0.26	
7			Mokhisi	58	0.80	
8		Kaspi	Teliani	54	0.36	
9			Metekhi	35	0.24	
10	Kvemo Kartli	Gardabani		128	0.24	
11		Marneuli	Shaumiani	205	0.21	
12		Bolnsi	Kvemo Bolnisi	17	0.30	
13		Tetritskaro	Koda	446	0.50	
14	Kakheti	Sagarejo		21	0.50	
15		Telavi		26		
16		Lagodekhi		18	0.14	
17	Mtskheta-Mtianeti	Mtskheta	Saguramo	71		
18			Tsinamdzvriantkari	101		
19			Tsilkani	400		
20			Tserovani	1,990		
21			Prezeti	270		
22		Dusheti	Bazaleti	96		
Total				5,052		
Mean					0.39	0.31
Min				17	0.14	0.16
Max				1,990	0.80	0.46

Source: MoA, MRA, estimates as at March 19, 2009

Note: IDPs in Skra, Karaleti, and Berbuki resettlement areas were allocated, through a lottery, either arable plots or plots under perennial crops.

Table 33: MoA Seed Package Composition

#	Vegetable	Quantity
1	Tomatoes	250 seeds
2	Cucumber	10 gr
3	Onion	10,000 seeds
4	Squash	15 gr
5	Coriander	50 gr
6	Celery	50 gr
7	Radish	50 gr
8	Red Beet	5,000 seeds
9	Potato	25 kg
10	Carrot	50 gr
11	Parsley	50 gr
12	Cauliflower	500 seeds
13	Besom	100 gr

Source: Government of Georgia Order # 50 as of January 30, 2009

ANNEX 6.9: Irrigation in Shida Kartli Region

Irrigation water to Shida Kartli Region is provided through the Saltvisi, Tiriphoni, Tezi-Okami, Tashiskari, Skra-Kareli, and Vanati main canals, under the management of the state owned company Ltd Mtkvari-M. The entire system is characterized by frequent breakdowns and high rates of water losses. As a result of the August 2008 conflict, intakes of Saltvisi, Tiriphoni and Tezi-Okami magistral canals are in South Ossetia, outside of control of the Government of Georgia (GoG). The other two main canals, Tashiskari and Skra-Kareli, under the control of the GoG, are expected to supply water as planned.

Water is currently available in all systems. However, in the absence of an agreement between the GoG and de facto South Ossetian authorities, intake could be cut off during the irrigation season. If completely cut-off, more than 4,000 hectares would be without irrigation for the 2009 cropping season. In this scenario, Gori and Kaspi would lose 50% and 100%, respectively, of irrigable land (Table 10).

To ensure reliable supply of irrigation water, the GoG initiated construction of a new intake and pumping station for Saltvisi and Tiriphoni main canals on Georgian controlled territory, near the village Nikozi. This alternative system is expected to be operating by the end of this year. Once the work is complete, the GoG will provide a loan to Mtkvari-M to cover operation costs. After 2-3 years, Mtkvari-M will be able to charge irrigation users to recover costs incurred for the first and following years. Progressively, the GoG also intends to rehabilitate the channels to prevent water losses.

A number of factors are threatening the whole operation. The first is the financial resources made available by the GoG, who estimated the cost of the construction of the new intake and the pump equipment at US$ 5 million, while other agencies assess the total cost at US$ 12 million. This first threat could however be overcome, as the GoG commitment seems firm. The second threat is the economic viability of the system, as long as channel rehabilitation is not performed. Indeed, previously the whole system relied on gravity to supply water to the channels. Part of the future system heavily relies on pumped water. The incurred cost dictates a sound use of this water. The present state of the channels results in significant losses due to water leakages. This would result in reduced irrigable area with particular difficulties faced by farmers having land at the very end of the main channels.

Eventually, this new system might still be at risk to sabotage by SO will still be possible due to the fact that part of the Tiriphoni canal passes through SO territory to the east of Tskhinvali.

Table 34: Planned and probable area of land to be supplied with irrigation

Rayon	Magistral Canals								Total by Rayon	
	Saltvisi		Tiriphoni		Tezi-Okami		Tashiskari	Skra-Kareli		
	Planned	If cut off	Planned	If cut off	Planned	If cut off	Planned	Planned	Planned	If cut off
Gori	430	350 *	5 ,000	2, 260 **				130	5,560	2,740
Kareli							1, 876	600	2,476	2,476
Kaspi					1 ,200	0			1,200	0
Khashuri							804		804	804
Total	430	350	5, 000	2 ,260	1, 200	0	2, 680	730	10,040	
Irrigable area at risk	80		≥ 2, 740		1 ,200				≥ 4,020	

Source: FAO Technical Note, LTD Mtkvari-M, estimates from verbal discussions
* irrigable area concentrated around the village Kelktseuli
** during dry summer, water supplies are very limited

Table 35: Shortage of Irrigation Water

Village	*Irrigation Water Shortage*	*Details*
Pkhvenisi	No	Source depends on Tskhinvali, South Ossetia and could be severed any time
Akhaldaba	No	There is no deficit of water
Variani	No	source depends on Tskhinvali and could be severed any time
Rekha	No	The 1.5 km of channel requires cleaning and one of the 3 heading system is in need of rehabilitation
Sveneti	No	2 km of channel needs cleaning, heading system to be rehabilitated
Kheltubani	Yes	Since Tskhinvali blocked Tiriphoni channel, 80% of land is not irrigated
Tortiza	No	2.5 km of channel needs cleaning, head construction to be installed
Dirbi	Yes	
Breti	Yes	Head construction is located in South Ossetia territory, water pump to be installed
Didi Garejvari	Yes	
Karaleti	Yes	
Sakasheti	No	source depends on Tskhinvali and could be severed any time
Shertuli	Yes	Headwaters in Tskhinvali
Dzevera	Yes	An alternative source could be through a new channel from Didi Liakhvi to Patara Liakhvi. This would require headwork construction
Aradeti	Yes	Head construction to be installed
Abisi	Yes	Shortage of water
Kvarkheti	Yes	Headwaters in Tskhinvali
35Tkviavi	Yes	Headwaters in Tskhinvali
Kitsnisi	Yes	
Tirdznisi	No	
Tseveri	Yes	Current source can only irrigate 50 percent of land

Source: WFP EFSA Database Feb 2009

Figure 2: Tezi-Okami Irrigation System:

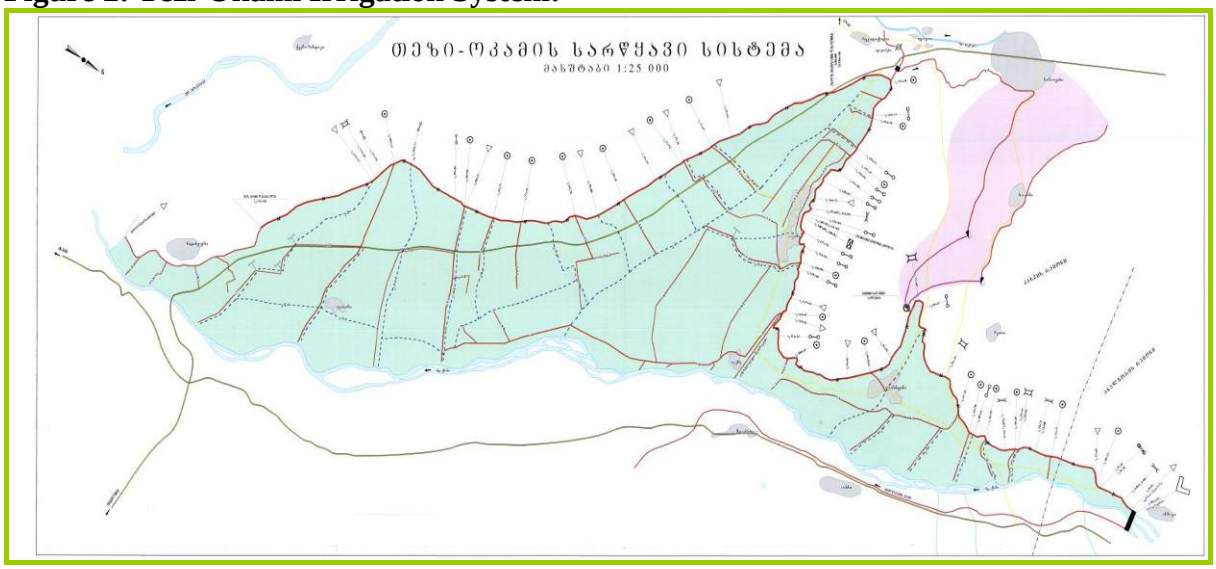


Figure 3: Tashiskari Irrigation System:

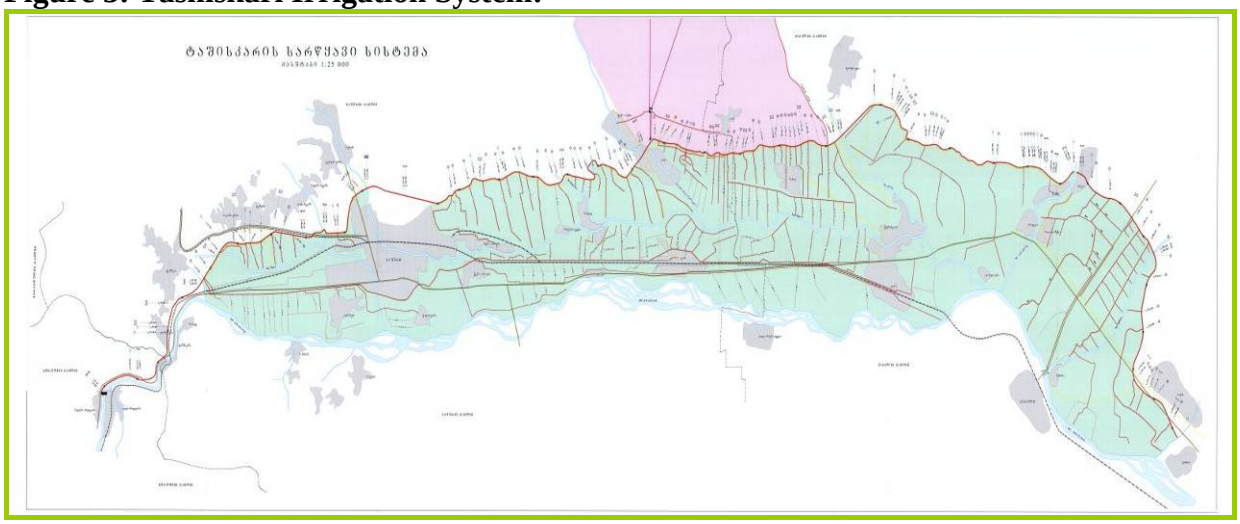


Figure 4: Skra-Kareli Irrigation System:

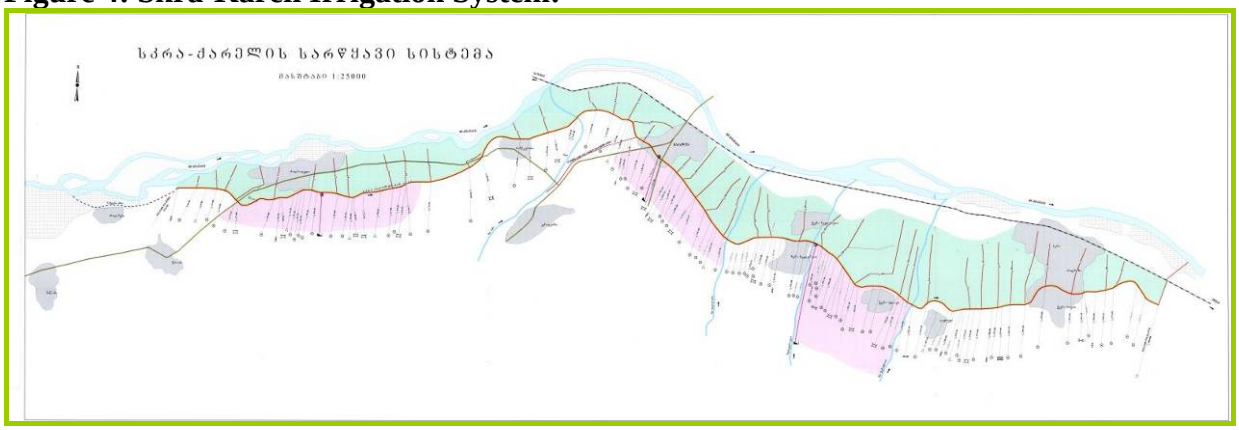


Figure 5: Saltvisi Irrigation System:

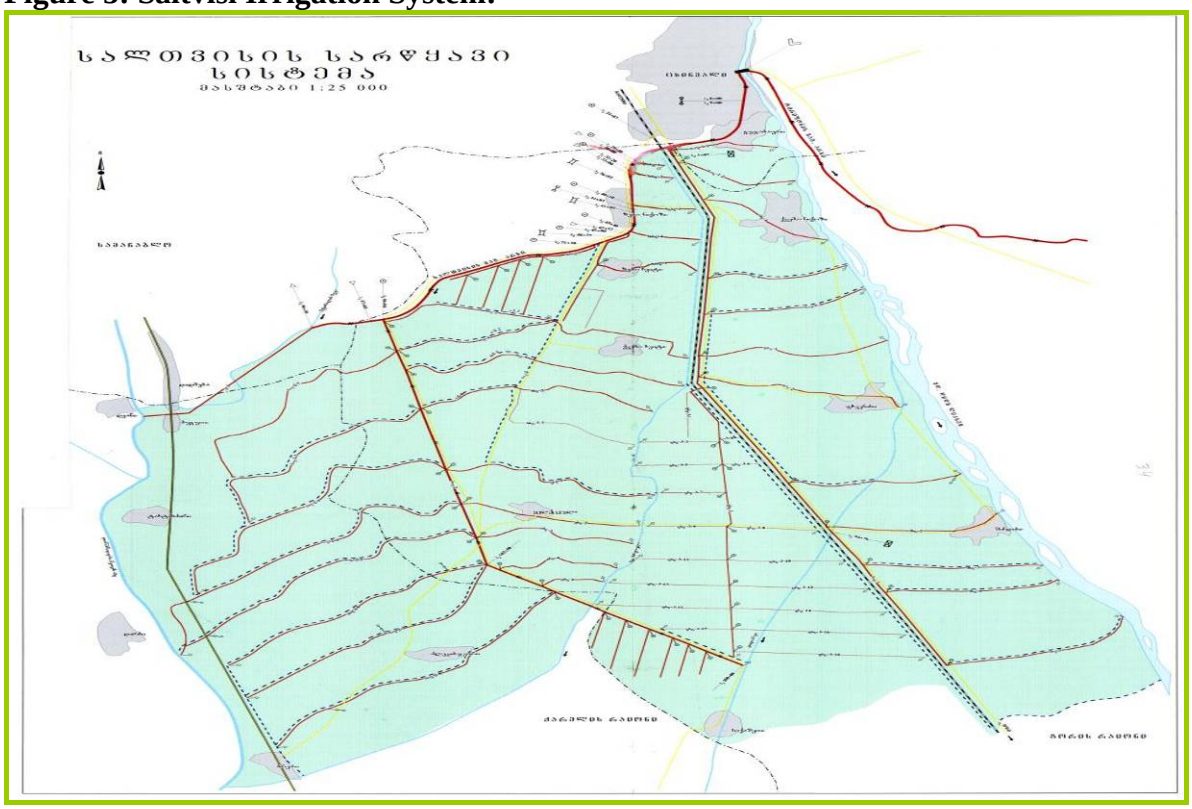


Figure 6: Tiriphoni Irrigation System:

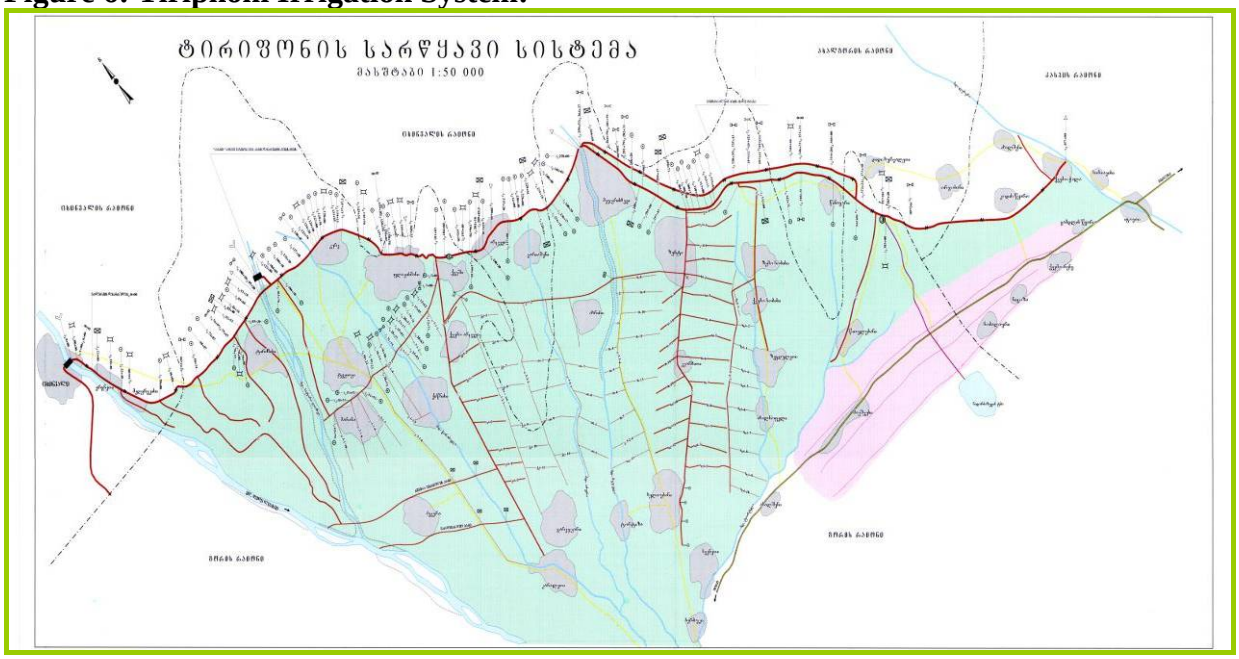


Table 36: Settlement Land Allocation and MoA Seed Package Distribution

#	Region	Rayon	Village	# of HH Received/ to Receive MoA Seed Package	Average Size of Plots Allotted, ha/HH	
					Arable Plots	Plots under Perennials
1	Shida Kartli	Gori	Karaleti	480	0.22	0.16
2			Skra	86	0.30	0.46
3			Khurvaleti	139	0.50	
4			Berbuki	134	0.49	0.31
5			Shavshvebi	177	0.80	
6		Kareli	Akhalsopheli	100	0.26	
7			Mokhisi	58	0.80	
8		Kaspi	Teliani	54	0.36	
9			Metekhi	35	0.24	
10	Kvemo Kartli	Gardabani		128	0.24	
11		Marneuli	Shaumiani	205	0.21	
12		Bolnsi	Kvemo Bolnisi	17	0.30	
13		Tetritskaro	Koda	446	0.50	
14	Kakheti	Sagarejo		21	0.50	
15		Telavi		26		
16		Lagodekhi		18	0.14	
17	Mtskheta-Mtianeti	Mtskheta	Saguramo	71		
18			Tsinamdzvriantkari	101		
19			Tsilkani	400		
20			Tserovani	1,990		
21			Prezeti	270		
22		Dusheti	Bazaleti	96		
Total				5,052		
Mean					0.39	0.31
Min				17	0.14	0.16
Max				1,990	0.80	0.46

Source: MoA, MRA, estimates as at March 19, 2009
Note: IDP's in Skra, Karaleti, and Berbuki resettlement areas were allocated, through a lottery, either arable plots or plots under perennial crops.