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# SHIDA KARTLI REGIONAL DEVELOPMENT STRATEGY

**2014-2021**



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REGIONAL  
DEVELOPMENT  
STRATEGY  
2014-2021**

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## I. GENERAL OVERVIEW OF THE REGION

The region of Shida Kartli lies in a middle section of lowland between the Greater and Lesser Caucasian mountain range in East Georgia. It occupies 9.2%<sup>1</sup> of the country's territory, with 7% of the country's population. The region of Shida Kartli borders Mtskheta-Mtianeti to the east, Kvemo Kartli to the south-east, Samtskhe-Javakheti to the south-west and Racha-Lechkhumi/Kvemo-Svaneti to the north-west. The region shares its northern border with the Russian Federation.

The region has a very favourable geographic location such as close proximity to the capital city, the East-West highway of international importance and the South Caucasus main railway that goes through the region.

The **natural conditions** of the region are quite favourable: the climate is moderately continental with moderately warm air temperature and moderate humidity providing suitable conditions for life and economic activity. The dense drainage network of the region is a part of the River Mtkvari basin, which is the main water source for the region. The region has natural sites unique to the temperate zone, including vertical zoning remarkable for a wide variety of soils and rich in forests, flora and fauna.

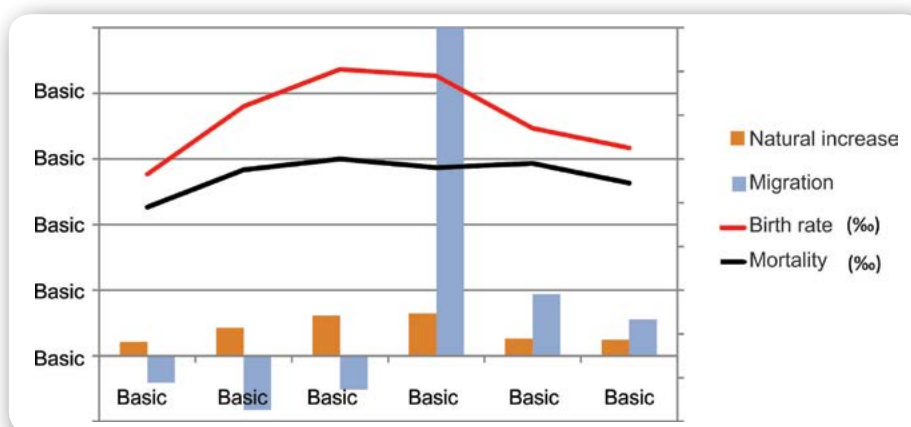
The Shida Kartli region includes nine administrative-territorial entities: 1 city - Tskhinvali and 8 municipalities – Gori, Kaspi, Kareli, Khashuri, Tigvi, Eredvi, Kurta and Javi. Four municipalities are located in the territory controlled by the Georgian government, with 372 settlements out of which 4 are cities (Gori, Kaspi, Kareli, Khashuri), 2 are townships (Surami, Agara) and 366 are villages (strategy 2011).

In the early 90s, the Georgian government lost effective control over a part of Shida Kartli's territory due to the abolishment of the South Ossetia's status as an autonomous region within the USSR and the ensuing ethnic and political conflicts in the region. In the aftermath of the Georgian-Russian war in August 2008, Russian troops occupied about 1,400 km<sup>2</sup> of the country's territory. The occupation will have a negative impact on the future prospects of the region's economic and social development due to restricted access to the occupied territories, security issues in adjacent areas of the conflict zone and severe economic downturn.

The population of Shida Kartli is more than 300,000 people. Nearly half of them are residents of the Gori municipality and the remaining population is almost equally distributed among three municipalities: 20% in Khashuri and 17% each in Kartli and Kaspi. Shida Kartli is primarily a rural region where the level of urbanization hardly reaches 40% which is typically an indicator of non-industrial, developing regions.

Annual migration flows do not exceed 0,5% of the region's population. The exception is more than 10,000 migrants registered in 2010 (3,5 % of the region's population) most of whom (more than 6,000) were IDPs from Tskhivali (the so called South Ossetia) as a result of the Georgia-Russian war in 2008.<sup>2</sup>

**Natural growth of population and net migration (2007-2012)**



Source: Geostat

1 In fact, the territory of Shida Kartli that is currently under the control of the Georgian government accounts for only 6,9% of the country's total territory (within de jure borders). The number of population in the region is therefore proportional to the total number of population in Georgia.

2 Migration of IDPs in 2008-2008 is described in the statistical data of 2010.





In Georgia there are 250,658 IDPs in total, of which 14,298 live in Shida Kartli, i.e. 5,7% of all IDPs in the country and 4,5% of the region's population. A majority of IDPs (almost 70%) reside in the Gori municipality or in the city of Gori itself. The social and economic integration of IDPs still remains to be one of the most pressing challenges for the region.

## II. SOCIAL CONDITION OF THE REGION

### EMPLOYMENT

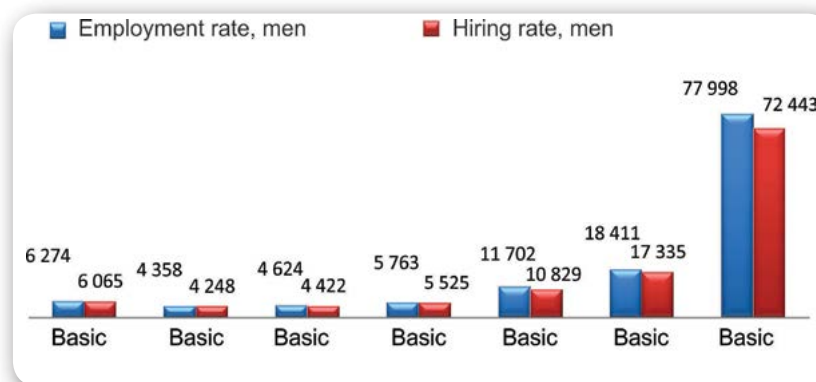
The self-employment rate accounts for 77% of the total workforce in the region reflecting the number of agricultural workers employed in small farms (households). Consequently, the rate of employment, activity and unemployment in Shida Kartli is higher than the average rate in Georgia.

| 2012              | Shida Kartli | Average rate in Georgia |
|-------------------|--------------|-------------------------|
| Employment rate   | 63.9 %       | 56.8%                   |
| Activity rate     | 71.5 %       | 66.9 %                  |
| Unemployment rate | 10.6 %       | 15.01 %                 |

Source: Geostat

The number of people employed and hired in the business sector was declining in 2006-2008 with a significant growth recorded again from 2009.

#### The number of people employed and hired in the business sector in 2006-2012



Source: Geostat

More than 80% of the population is employed in the agricultural sector of the region. However, agriculture generates only 15% of gross value added (GVA) which indicates low productivity of the sector.

### SOCIAL SECURITY

Shida Kartli is one of the regions in Georgia where the number of socially vulnerable groups is high. According to the statistics of 2010 with the aggregated data of Shida Kartli and Mtskheta-Mtianeti population, these groups account for about half of the population. The proportion of population below the poverty line is high in Shida Kartli (about 20%), including those in extreme poverty (8%). It is partly due to a large number of IDPs. There is also a large number of pensioners (19% of population), including people with disabilities (4%). All government-funded medical and social programmes are implemented in the region. One-time social benefit programmes are also implemented in the municipalities but such programmes do not cover the whole vulnerable population and do not have a long-term impact on its standard of living due to the one-time nature of the benefits.

### EDUCATION

All levels of educational institutions are represented in Shida Kartli. There are three higher educational institutions in Gori: the University of Gori, the Sukhishvili University of Gori and the National Defence Academy. There are 7 vocational institutions, 172 secondary schools, 6 special (music) schools and 99 pre-school institutions in the region.





The curricula of higher educational institutions, colleges and vocational institutions generally includes agriculture and tourism but the quality of these courses needs to be improved by developing curricula in accordance with the latest standards, establishing active communication and coordination with potential employers in these areas. In addition to the local academic personnel, local educational institutions should also invite outside experts and collaborate with relevant government institutions, potential employers, business sector representatives and foreign experts to develop and improve agricultural and tourism courses and to deliver lectures on these subjects. In this regard, it is important to consider the experience of successful countries and provide graduates with on-the-job training opportunities in relevant institutions.

Establishment of general and support infrastructure for pre-school institutions, improvement of management and curricula in Shida Kartli is a challenging task. Alternative pre-school institutions should be opened step-by-step in the villages where there are no pre-school institutions.



### HEALTHCARE

There are a total of 112 medical institutions in Shida Kartli with an average of one medical institution for 2,803 people. There is a different picture in case of breakdown by municipalities. With regard to the number and location of rural outpatient clinics, there is a normal situation in the Gori municipality. All territorial entities (villages, communities) have their own outpatient clinics. The situation is more or less good in the Kaspi and Kareli municipalities but there is a distinctive lack of outpatient clinics in the Khashuri municipality. There are 15 private clinics in the region, of which 8 are located in the Gori municipality. The ratio of physicians to 1000 people is 2.5 whereas the average ratio, excluding Tbilisi, is 2.9.

**Medical institutions of Shida Kartli in 2011**

|                             | Total in Shida Kartli |
|-----------------------------|-----------------------|
| Hospitals                   | 24                    |
| Clinics                     | 11                    |
| Private clinics             | 15                    |
| Outpatient clinics          | 57                    |
| Ambulances                  | 5                     |
| Total in the municipalities | 112                   |

*Source: Passports of municipalities.*

## III. ECONOMIC DEVELOPMENT OF THE REGION

### NATURAL RESOURCES

Shida Kartli is quite rich in natural resources. It has a wide variety of soils, forests (occupying 46% of the region's territory), water and other resources (e.g. recreational). Kaspi, Khashuri and Gori municipalities are rich in resources whereas the Kareli municipality has a lower amount of resources.

It should be noted that the region has a wide variety of mineral resources. The mineral resources of the region include iron, silver, gold, lead, zinc but due to their small number and limited use in production their economic value is generally low. There is also a negative impact of conflict areas (e.g. suspension of the Kvaisa development). Therefore, the mining of most resources is either limited or suspended. In this regard, the extraction of inert materials (sand and gravel) from river beds (in particular, the Mtkvari river)/ravines and their use in the construction industry is a comparatively important and perspective project. Among other mineral resources, the region produces flux limestone, dolomite, paving stones, magmatic rocks, lightweight aggregates, furnace limestone, brick clay, etc.







## GROSS VALUE ADDED OF THE REGION

The gross value added (GVA) of Shida Kartli and Mtskheta-Mtianeti totalled GEL 1,335 million in 2011, reflecting an increase of 18,6% over the previous year and accounting only for 5.5% of the country's GDP. It is a comparatively low indicator for the population and territory of these two regions reflecting not only the relatively weak economic situation but also constraints to the economic growth due to the war with Russia and the economic crisis.

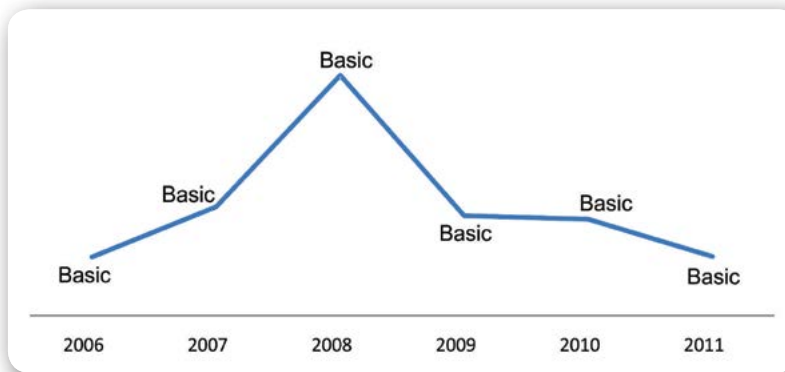
The economic activity of Shida Kartli is primarily based on the following industries: agriculture (agricultural industry), production, tourism, trade (commerce), transport and communications, energy, construction (including roads and other infrastructure).

In 2011, the industrial sector accounted for the largest share of the region's GVA - 22% of the total value, with various kinds of services being 18%, public management 17% and agriculture 15%. The share of other industries ranges from 1 to 5%.

## INVESTMENTS

Like many other segments, capital inflow and investment market in Shida Kartli showed a significant increase from 2006 (GEL 29.1 million) to 2008 (GEL 118.9 million) followed by a sharp downward trend in the post-war period, GEL 29.3 million in 2011 (see fig. 4.2). The main reason for the decline was the Russian aggression in 2008. Another factor worth noting is the unstable investment environment.

**Amount of investments in fixed assets of business sector in 2006-2011 (million lari)**



Source: Geostat

The industrial sector accounts for the largest share of total investments. Investments in the industrial sector in 2011 (GEL 20.8 million) were 71% of total investments, 87% in 2010, and 84% in 2009, etc. The remaining investments are distributed among construction, trade, transport and communications, and other sectors.

**Amount of investments in fixed assets of various sectors, million lari**

| Year | Industry | Construction | Trade | Hotels & restaurants | Transportation and communications |
|------|----------|--------------|-------|----------------------|-----------------------------------|
| 2006 | 24.8     | 1.8          | 1.2   | 0.0                  | 0.1                               |
| 2007 | 49.3     | 2.7          | 0.9   | 0.1                  | 0.3                               |
| 2008 | 107.2    | 2.7          | 0.6   | —                    | 0.3                               |
| 2009 | 41.7     | 3.5          | 1.4   | 0.3                  | 0.0                               |
| 2010 | 41.7     | 0.8          | 1.4   | 0.0                  | 0.2                               |
| 2011 | 20.8     | 1.4          | 1.6   | 0.1                  | 0.6                               |

Source: Geostat

## INDUSTRY

Industry in Shida Kartli is not well-developed - the number of sectors, employees and production rate is not large. Only food industry is more or less advanced and significant in the region.

The data for recent years reflect year-on-year substantial fluctuations in the number of employees, production rate and gross value added but a certain trend can still be observed: in 2006-2008 there was a positive





trend (except for the turnover rate) followed by a sharp decline due to the war and crisis and then again an upward trend in 2010-2011.

Amid such fluctuations in the industrial production rates, a general upward trend in the average monthly wages can be seen (except for 2009 when there was a significant decline of 22% compared to the last year).

## CONSTRUCTION

The construction sector performance in Shida Kartli are quite similar to that of the industry sector: the sector showed an upward trend in the pre-war and pre-crisis period followed by a post-war/post-crisis decline/downturn and then an upward swing again in 2011.

The same trends are apparent in the industry and construction sectors, such as significant fluctuations of employment rate, production rate, turnover and added value. After a peak in 2007 followed by a downturn due to the war and crisis, there was another move upwards in 2011. Instead, a relatively stable upward trend is observed in the rate of wages, which is certainly a positive aspect.

## TOURISM AND HANDICRAFT INDUSTRY

The tourism potential of Shida Kartli is generally related to a multitude of cultural, historical and religious sites in four municipalities of the region. Therefore, the tourism potential is considered to be one of the key areas for the long-term development of the region. The two-year dynamics demonstrates a substantial increase in the flow of tourists and visitors, which is a positive trend. However, it should be noted that a major part of people coming to the region are merely various types of visitors rather than tourists.

Among the factors contributing to an increase in the number of tourists and visitors are infrastructure development at a regional level, overall improvement of criminal situation in the country, promotion of the country's tourism potential in the leading markets of the world, etc.

At the same time, there are some constraints to the development of tourism in Shida Kartli, such as:

- complete lack of private travel agencies in the municipalities of Shida Kartli;
- a low level of coordination between the representatives of travel agencies in the capital city and tourist sites in the municipalities of Shida Kartli;
- unavailability of tourist infrastructure;
- rates on sightseeing;
- Improper cleaning of tourist sites.





In general, the region has a quite great tourist potential. However, the right tourist “niches” need to be identified in order to develop and offer competitive travel products. The region has a potential for the development of health tourism, eco-tourism, agro tourism, cultural, active and extreme tourism.

The development of tourism is one of preconditions for the growth of revenues and employment. For instance, the establishment of catering and recreational facilities, private guest houses and tourist centres near cultural sites would provide employment opportunities for the local population and an additional stimulus for the production and sale of agricultural products.

With regard to **handicraft stores**, it should be noted that certain municipalities of Shida Kartli have a rich tradition of producing handicrafts. However, today the share of this industry in the economy of the region is very low providing only a minimum subsistence livelihood for certain individuals.

## TRADE

Similar to the industry and construction sectors, fluctuations can also be seen in the trade. However, based on various criteria, the upward trend (except in 2009) is more vivid here. This sector reached its high in 2011 which could be considered to be a positive sign but for one important detail: the average monthly wage in the trade sector is extremely low (below GEL 200) and continues to spiral downward. It is an important issue which should be studied and addressed additionally by the governing authorities of the region.

## SERVICE SECTOR

The number of people employed in hotels and restaurants of Shida Kartli was 450 people in 2008. In 2010, this number fell by 2.4 (down to 183 people) but increased again by 4.5 up to 821 people in 2011. As a general rule, fluctuations in the production and turnover rates are a clear sign of instability in the sector.

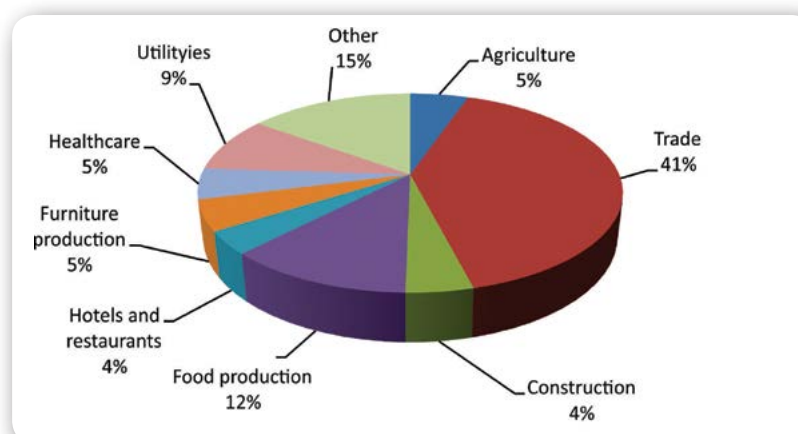
The service sector performance in Shida Kartli is less satisfactory reflecting the overall poor performance of tourism and recreational industry. Moreover, there is a **lack of entertainment and holiday facilities in the region**. After a short sightseeing tour, tourists often go back to Tbilisi not only for a night stay, but also for meals as foreign tourists cannot find certain food and entertainment facilities in the region (such as cafés, night clubs, entertainment centres, etc.). As a result, tourists are reluctant to spend a night in Shida Kartli and often come as “visitors in transit”. This limits opportunities for tourists to spend money in the region.

Wages in the sector are very low, even compared with the trade sector, with a significant downward trend in 2009-2011.

## BUSINESS

In terms of sectors, companies in Shida Kartli mostly operate in the trade sector (41%) and food industry (12%) (see figure 4.2.).

Companies of Shida Kartli according to sectors



Source: Geostat

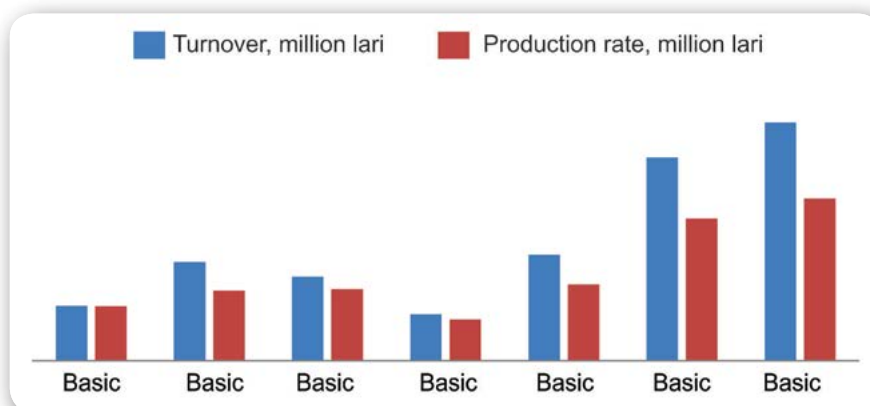
The industrial sector in Shida Kartli is mostly represented by **SMEs**.

As mentioned above in the description of various sectors, after the Russian aggression in 2008 and later, as a result of the world financial crisis, the business sector turnover and production rates in Shida Kartli experienced a considerable decline followed by a rapid increase in subsequent years.





### Business sector turnover and production rates in Shida Kartli



Source: Geostat

The region produces up to ten types of industrial moulded products which are almost identical in the municipalities of the region. The only exception is the Kaspi municipality which is focused on the production of building materials and components.

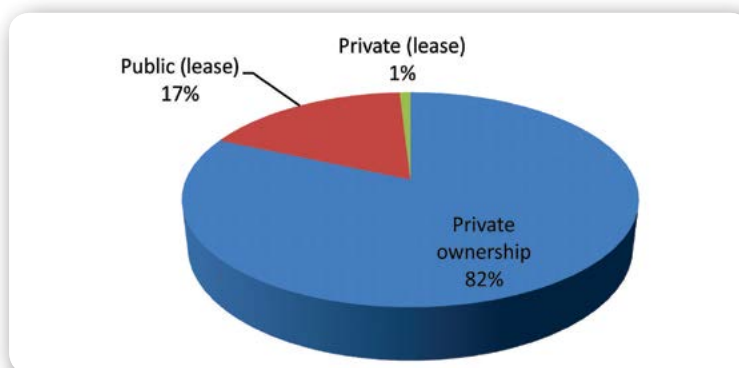
Among the factors preventing the development of business in the region are high price of financial resources, obsolescence of production capacities and lack of qualified staff.

## AGRICULTURE

### LAND RESOURCES AND LAND USE

According to the Geostat data of 2009, the total area of land in Shida Kartli is 69,425 ha, or only 14,4% of the region's area controlled by Georgia, of which 56,682 ha is in private ownership. 95% of non-privatised lands or 12,116 ha was granted on lease by the state, while the area of land granted on lease by private persons is only 628 ha (see figure 5.1).

Lands of Shida Kartli by types of ownership



### AGRICULTURAL LANDS

Although the area of Shida Kartli's agricultural lands is relatively smaller than in the other regions - Kakheti, Kvemo Kartli, Imereti, it is still considered to be **one of the most important agricultural regions of Georgia**. 66,237 ha are used for agricultural purposes (95.4% of total lands), of which 74% are arable lands, 21% are perennial plantations and 5% - grasslands/pastures. The share of greenhouses is small being less than 1%.

In 2009, there were 72,940 farms in the region, including 72,881 family-run farms (99.9% of all farms), 64 agricultural enterprises and 55 - other enterprises. On average, one enterprise does not hold even 1 hectare. The farms are clearly small and fragmented with a low potential for commercial production.

Under these conditions, the agricultural land market is generally limited and undeveloped. The number of market transactions is comparatively low due to lack of interest in fragmented lands. Banks also refrain from funding small agricultural holdings due to their low liquidity. The problem is aggravated by a lack of insurance services in this area.





All this discourages land owners to register their real estate - agricultural land holdings. Land registration process which is considered to be simple in Georgia is still inconvenient and expensive to most farmers because land as a market commodity has a low value and besides, land can be cultivated without registration. This makes it more difficult for peasants/farmers to engage in market relations (e.g. to obtain a loan). Lease market is also undeveloped and is largely of an informal nature (no agreements are made and registered).

Accordingly, in early May 2013 slightly more than 50,000 land plots, both agricultural and non-agricultural (e.g. household plots), with the total area of 126,670 were registered in the region while the total area of lands is 375,066 ha according to the cadastre/inventory data. Therefore, only a third part of privately owned lands (33,77%) have been registered to date with most of them being non-agricultural lands (residential/household plots). It is clear that this issue needs to be addressed as soon as possible in which the state can and must play an important role.

**Statistics of cadastral and registered agricultural lands (from 2007 to 2013)**

| Municipalities        | Number of registered land plots |          | The area of land plots registered by 2013 | Total areas based on the cadastral data | % of registered lands |
|-----------------------|---------------------------------|----------|---|---|-----------------------|
|                       | January 2012                    | May 2013 |   |   |                       |
| Total in Shida Kartli | 29,076                          | 50,907   | 126,670                                   | 375,066                                 | 33.77                 |

*Source: National Public Registration Agency of Georgia*

**AGRICULTURAL SECTORS**

**FRUITS**

Shida Kartli is a fruit-growing region of Georgia ranking first in a variety of fruit produced,

The region has always been famous for apple production (see Appendix No. 2, fig. 1). Despite the lower harvest of apples compared to 2007 and sharp fluctuation of yields in various years, the region still has a dominating position in the country. In 2011, the harvest of apples was several times bigger in the region than in Samtskhe-Javakheti (6 times), Imereti (21 times), Kvemo Kartli (16 times) and Samegrelo-Zemo-Svaneti (18 times).

With regard to the production of pears, in 2011 Shida Kartli outstripped the traditional leader - Samegrelo which was a top producer in 2006-2010. In 2011, Shida Kartli becomes the top pear producer in the country. Moreover, Shida Kartli retains a top position in the country in plums production despite the decrease in production levels compared to 2006.

Shida Kartli has also retained a leading position in cherry production since 2008, with the production level being 12 times more than in Adjara and Samagrello-Zemo Svaneti, and 4 times more than in Imereti and Kvemo Kartli.

Since 2009 Shida Kartli has become the second largest peach producer, preceded only by Kakheti.

Another priority area in Shida Kartli is the production of **cereals** - wheat and barley. Based on the 2011 data, the region ranks second in the country in the area of lands under these two crops (12,900 ha of wheat and 4,900 ha of barley). Wheat consumption is steadily increasing. However, local production cannot meet a





large portion of demand and, similar to other agricultural products, 550-800 thousand tons of wheat or flour are imported every year. It is important to note that imports far outweigh local production. At the same time, local seeds are produced in small quantities; as a result, there are high losses and a large amount of low quality wheat.

The region ranks second in **walnut** production and fourth in grape production. Shida Kartli ranks second in terms of areas under vegetables, and first in terms of areas under beans (see Appendix 2, fig. 6 and 7). Shida Kartli has traditionally been one of large vegetable producers after Kvemo Kartli and Kakheti. It produces the following vegetables: potatoes, beetroot, cabbage, carrots, onions, garlic, asparagus, pepper, aubergine, etc. Suitable agricultural and climatic conditions and favourable soil, including a large area of irrigable lands, create a great potential for the development of this sector of agriculture. Due to a limited number of greenhouses and their low profitability, supplies of vegetables to the domestic market in winter are not sufficient and have to be supplemented through imports.

#### LIVESTOCK

There is a different situation in the livestock sector as the region does not play a leading role almost in all the categories of this sector. Compared to other regions, livestock and meat production are not a priority area in Shida Kartli which ranks fifth, sixth or seventh in this sector.

The region is behind Imereti, Samegrelo-Zemo Svaneti and Kvemo Kartli in pork production but retains the sixth position in the production of all kind of poultry and is fifth or sixth in the production of milk. The same situation is in the production of cow and buffalo milk and eggs.

Shida Kartli's potential in the livestock sector is realisable, including highland areas where soil is not used for cultivation. The development of road infrastructure might open up opportunities for the development of cattle farming.

#### WAYS FOR IMPROVEMENT OF AGRICULTURAL PRODUCTION

One of the obstacles to the development of agricultural production in the region is the lack of peasants'/ farmers' **association and cooperatives**. However, for this purpose large-scale and continuous **awareness/ educational campaigns** should be developed and conducted, many presentations should be held demonstrating and sharing the international experience so that each peasant/farmer could see and understand the extent to which production costs can be reduced by consolidating lands and resources and thus increasing incomes from joint activity. At the same time, it should be clearly demonstrated and each peasant should make sure that consolidation does not mean loss of their lands and resources, or their transfer to another person. Peasants should see that there is no risk in cooperation, and that they would not lose but rather win from the cooperation. The campaign should be comprehensive and positive - the psychology and disposition of peasants/farmers in each village or district and their attitude to cooperation should be considered.

The on-going **technical and technological progress** affects modern production demonstrating the need for upgrading the existing equipment and technology. It is absolutely impossible to achieve competitive production with out-dated technology in the conditions of constantly growing consumer demand for reasonable prices and high quality products made to the latest standards (including environmentally safe products). Central and local authorities should continue import of highly functional equipment and modernisation of the existing fleet with the purpose of expanding the role of leasing in this area and involving entrepreneurs in this process.





Stimulating the **re-equipment and construction of processing plants** is a priority but it requires appropriate primary production.

The recovery of agricultural production in the region involves introducing the following innovative solutions and methods:

- Plant, improve and expand modern **nursery gardens**, introduce new technology and promote the production of high-standard fruit-tree seedlings.
- Encourage the development of **demonstration plots** and virus-free stool bed plantations of wild seedlings and fruit varieties both on commercial land holdings and on lands belonging to research institutions. This should be achieved by extensive awareness campaigns demonstrating the profitability of such projects.
- Increase **fruit yield** and **product quality** by planting potentially valuable and high-yield commercial varieties of fruit in Shida Kartli.
- install modern **drip irrigation systems** by giving long-term loans or grants to farmers who have the potential to produce competitive production.
- **Bring modern agricultural equipment** to the region and encourage the development of agricultural service centres into private businesses.
- Rehabilitate and construct modern **refrigerated storage facilities** for fruit taking into account the specific characteristics of each district. Support farmers' cooperatives by providing refrigerating systems equipped with modern fruit calibrating, sorting and packaging lines, including vehicles for fruit distribution.
- Establish short-term **training courses for farmers** (training centre), issue appropriate books, brochures, newspapers and other information. Encourage active involvement of local fruit farmers, agricultural organisations and other entities in international exhibitions.

The efficiency of agricultural production is largely dependent on the improvement of basic infrastructure in this industry. The development of **refrigerated storage facilities** is one of the key factors contributing to the future development of production and substitution of imports (for instance, refrigerated storage facility in the Shindisi village (Pkhvenisi). The development of refrigerated storage facilities will allow for the steady supply of high-quality products to the market all year round. It will also allow entrepreneurs to keep extra products in storage without any losses or regardless of low prices during a season, and to sell the products gradually throughout a year.

It is very important to replace the existing irrigation systems with modern **energy efficient irrigation systems** which are used successfully in the intensive agriculture of developed countries. Moreover, such systems will allow for saving and efficient use of resources. A majority of irrigation systems established during the USSR period are out of order and their recovery is associated with high costs. Besides, such systems often fail to meet market conditions due to high operating costs. The economic development plans of certain municipalities (e.g. Gori) provide for the rehabilitation of old irrigation channels and construction of new ones. However, such plans are less likely to be implemented in a timely manner due to the inappropriate management by the local government and deficiencies of the legislative framework. The situation is aggravated by difficulties with water supply from the conflict region.

Due to the disrepair of irrigation systems, about 30% of agricultural lands have been degraded. According to the information provided by local farmers, the existing traditional stone fruit and other perennial plantations have been going dry for the last 5-6 years.

At the initial stage, the rehabilitation of irrigation systems will require the government's support in the import and introduction of drip irrigation systems. The population should then be able to use the drip irrigation systems as per the established plan. It is important to develop the right approach to determining who will finance the import and installation of the systems and how, then the way of repurchasing the systems by farmers, the duration and conditions of agreements.

The area where government resources can still be used is the **import of agricultural equipment** and increase of its affordability. However, current or future agricultural mechanisation service centres should manage the existing equipment efficiently. The government's involvement may become necessary at the initial stage of purchase and import of the equipment. It should be noted that the sooner the government pulls out of this activity which it has been actively pursuing for the last several years, the sooner the agricultural mechanisation centres will transform from quasi-state entities into totally private business entities.

A significant part of the infrastructure development programme should be devoted to the purchase and





import of **hail protection nets**, including their marketing campaigns. These actions are also very important for reducing the existing agricultural risks. The hail protection nets should be used to the maximum extent possible, certainly, with own finances, medium or long-term loans/installment plans.

For many years insurance companies have been very discreet and cautious about **insuring** agricultural risks and have generally been unwilling to work in this sector. Lower interest rates on the insurance and re-insurance of agricultural production is important for the development of agricultural business in the region and in the country, on the whole. However, it must be stressed that any direct involvement of the government in this sector may prove to be ineffective and detrimental to the financing and insurance market thus restricting and prohibiting free competition. Providers of these financial services will be naturally drawn to the agricultural sector if agricultural production becomes profitable and therefore attractive for financial and insurance institutions. This requires improvement of road and irrigation infrastructure; creation of an infrastructure for stable supply (refrigerated storage facilities) and prospects for steady substitution of imports.

Only 19% of companies operating in the region sold more than 2/3 of their goods outside Shida Kartli, and only 4% or twelve companies shipped their goods for export. Eight out of twelve exporters are related to the food sector. The low level of sales outside Shida Kartli shows that the development of markets is a challenge.

With the government support, farmers should look to swiftly growing markets like China, India and certain other countries and regions which is a challenging, but promising task.

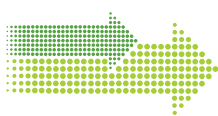
## IV. INFRASTRUCTURE OF THE REGION

### ROADS

In recent years, roads have been intensively reconstructed in the region but some internal roads in the municipalities of the region still remain in disrepair.

The international highway (Tbilisi-Senaki-Leselidze) which is fully covered with asphalt goes through the region. The total length of internal roads is 950 m<sup>2</sup> of which only 262 m<sup>2</sup> (28%) are covered with asphalt and the remaining 688 m<sup>2</sup> are roads of secondary importance; a large part of the roads is covered with gravel and a smaller part are roads with a dirt surface.

The main east-west railway goes through all the municipalities of the region, and all centres of the municipalities, except for Kareli, are railway stations.







## PUBLIC TRANSPORT

Passenger transportation services both inside and outside the municipalities of Shida Kartli are provided by private transport companies. Shuttle taxi services are available mostly in the municipalities of the region. As transportation in the region is not regulated by the local self-government, prices of transportation to certain destinations mostly depend on the market.

## TRADITIONAL AND MODERN COMMUNICATIONS

Almost all electronic communication companies of Georgia are present in Shida Kartli with nearly 80% coverage of the region's area in particular, the mobile communication network of Magticom, Geocel and Beeline.

With regard to **wireless communications**, Silknet has recently been actively installing cordless phones and terminals in the region. Silknet owns corded telephone network in Gori. Calls from corded phones to cordless phones are free in the city which is very good for the rural population both economically and in terms of fast communication.

With regard to **computerisation**, computers and the Internet are certainly more widely used in cities than in villages. However, more or less accurate data on computerisation are unavailable.

## HOUSING CONDITIONS

Shida Kartli is primarily a rural region with a majority of population living in private houses. Individual (private) houses are also abundant in urban settlements.

Apartment (multi-storey) buildings are mostly available in Gori but we do not have accurate information on the number of such buildings. There is no information available about apartment buildings in Khashuri. There are 82 apartment buildings in the Kareli municipality (18 in the city of Kareli, 36 in Agara township, 17 in Breti farming unit and 11 in the farming unit of Bebnisi village; the total of 17,500 private houses with household plots in the Kareli Municipality), 57 in the Kaspi municipality (in all cities of Kaspi).

The quality of apartment and private houses is unknown, either. However, municipal statistical data (see the passport of the Gori municipality) indicate that 20% of private houses in the Gori municipality are old and in need of major repairs and restoration. For the last three years roofs have been replaced and renovated in 60% of apartment buildings with the support of the local government. Water supply and sewer systems in 95% of apartments in such buildings need to be repaired. The general picture shows that the condition of the houses is not quite up to the mark.

Given the large number of IDPs and low-income people in the region, focus should be made on **social housing**. Certain actions have been undertaken in this regard but they are too insignificant to resolve even a part of the issues.<sup>3</sup> We believe that this issue should become a serious topic for discussion and effort at various levels of the government.

## ELECTRICITY AND GAS SUPPLY

A majority of the population in Shida Kartli uses electricity. It is noteworthy that energy consumption rates have been increasing annually in the industrial sector since 2009 and in the domestic area since 2010. More than half of the region's population have already been provided with natural gas. The gasification project is also being carried out in rural areas of the region.

## WATER SUPPLY AND SEWER NETWORK

All municipalities of Shida Kartli are rich in water resources which is an important factor for the smooth operation of irrigation systems in agricultural lands. However, it should be noted that supply of water to the population is no longer within the competence of public authorities (has been withdrawn from the competence of the local self-government since 2008) and is subject to market regulation. As a result, the state company was interested only in the supply of water to cities and townships.

<sup>3</sup> A social house started functioning in August 2009 based on the memorandum between the Swiss Development and Cooperation Agency, United Nations High Commissioner for Refugees (UNHCR) and the Gori municipality ("Social Housing in Supportive Environment"). 14 families moved into the social house in 2010. Beneficiaries were provided with equipment, household appliances and were explained the distribution of utility fees and terms of payment.





### Water supply and sewer system in the region, according to municipalities (2011)

| Municipalities | Headwater structure | Drinking water network (km) | Water supply to the population     | Sewer (km) | Note             |
|----------------|---------------------|-----------------------------|------------------------------------|------------|------------------|
| Kaspi          | 6                   | 46                          | 60% - cities<br>80% - villages     | 26         |                  |
| Gori           | 121                 | 351.5                       | 100% - cities<br>75% - villages    | 40.2       | Old water system |
| Kareli         | 30                  | 92.4                        | 100% - cities<br>90% - villages    | 21.3       |                  |
| Khashuri       | 3                   | Unknown                     | 50% - cities<br>Unknown - villages | Unknown    |                  |

Source: Strategy 2011

A large part of population, especially in the Khashuri and Kaspi municipalities, is discontent with the water supply.

Irrespective of the local government, budget revenues are mostly used to cover ongoing expenses without anything left for the implementation of major projects. It is almost impossible to collect any water supply fees from the rural population, so the expenses incurred for the water system rehabilitation cannot be recovered through the collection of fees from the population.

The self-government agencies do not have sufficient information on deficiencies in the water supply systems which is partly due to the withdrawal of this issue from the local self-government's competence. The local administration experiences a shortage of qualified staff in the field of water supply systems due to the lack of motivation because of low wages. The information available in the administration is outdated and updating the information involves a large amount of resources. The local self-government therefore has no accurate information about financial resources required to address the problem. There are no state standards or regulations concerning the rehabilitation of water systems.

The Georgian legislation does not expressly regulate who is responsible for the rehabilitation of water systems in rural areas and supply of water to the population. Local water resources have remained unidentified for many years. The legislation contains no regulations concerning the transfer of the municipally owned water systems to Georgian Water Ltd. It is not clear from the law who is considered to be a water supplier and whether this activity is subject to permit.

### WASTE MANAGEMENT

Cleaning and waste collection in the territory of the region is the responsibility of the local self-government. Waste collection services are mostly provided in cities, which is a serious problem for the rural population.

It is a complex problem comprising issues of environmental pollution by domestic waste or waste disposal sites, and management of hazardous and accumulated waste.

Waste management issues remain unresolved in Shida Kartli. After the break-up of the Soviet Union, this system has not been rehabilitated in a systematic way, garbage trucks are worn out, and the improvement of waste disposal sites and waste recycling issues remains a serious problem. The issue of allocating funds for waste management also remains unresolved.<sup>4</sup> In this regard, another problem is the introduction of a flexible system for waste collection fees in Shida Kartli.

**Standardisation** Standardisation system needs to be approved at the national level. Georgia does not yet have national standards in waste management. There are no instructions or technical regulations at the municipal level on which relevant agencies could rely in case of need. Standards are applied optionally. Mechanisms ensuring actual implementation of instructions should be developed.

**Lack of financial resources** Due to the lack of revenues in the municipalities, funds allocated for waste collection and recycling are not sufficient. The system for the administration of waste collection and recycling fees needs to be improved. The cost of these services is not analysed systematically. Accordingly, the amount of fees introduced by the municipality for the services should be revised. There is no efficient system for collecting service fees from the population.

<sup>4</sup> Pursuant to article 16/2 of the organic law of Georgia on Local Self-Government, the collection and recycling of municipal wastes is the responsibility of local self-government which means that these services must be funded locally.





**Management problems** There is a shortage of human resources at the municipal level. Relevant agencies of the municipality are unaware of waste management practices and models existing in the municipalities of European countries.

Therefore, due to the waste collection and recycling problems, the municipal territory cannot be improved and kept clean. This results in an increase of environmental risks, prevents the development of tourism and socio-economic development of the self-government.

## V. ENVIRONMENTAL PROTECTION

### SOIL CONDITION

Due to the peculiar climate, terrain and geodynamical processes, the erosion of lands and soils in Georgia is quite large-scale. 105 thousand hectares of arable lands in arid and half arid zones of West Georgia are affected by wind erosion, and 59 thousand hectares are affected by high salinity. The process of land and soil erosion has intensified in recent years due to more frequent natural disasters caused by changes in the global climate. Soil is degraded with plant nutrients and there is a decline in the soil fertility index - humus - almost in all kinds of soil. The loss of soil fertility is aggravated by inappropriate agricultural practices (excessive grazing, ploughing on uphill slopes, cutting of windbreaks) and deforestation.

According to the data of the ministry of agriculture, 8,677 hectares are affected by wind and water erosion in the Kareli municipality, and 14, 157 in the Gori municipality. 450 hectares in Kareli and 233 hectares in Gori have saline soil. Both slopes of the Kvernaki mountain ridge have average rates of erosion due to excessive grazing by sheep. Soil erosion can be observed in certain areas. There are changes in the forest borders in the Ateni Gorge. The desertification process has intensified in Shida Kartli where wind erosion has intensified for the past 20 years due to the high temperatures caused by the destruction of windbreaks and lack of precipitation.

The land degradation process can be avoided or stopped by putting in place a more efficient land policy at the national, regional and local levels. Despite the existence of legislative framework for **land management**, the land use planning practice in Georgia is deficient leading to inappropriate allocation of lands for development and construction operations without any actions taken to avoid damage to high-value agricultural areas and important natural ecosystems. A basis for the stable development of land resources can be established and conflicts between various sectors can be avoided only by implementing **land use plans** developed with the involvement of all stakeholders.

Due to a shortage of information about soil degradation, it is difficult to identify necessary mechanisms for addressing the problem. Research should be conducted to establish the soil condition with subsequent planning of land management and provision of training for farmers on land management issues.

### AIR POLLUTION AND SOURCES OF POLLUTION

Transport accounts for the largest share of pollutants in Georgia. 87% of carbonic acid, 70% of nitrous oxides, 50% of sulphur dioxide 40% of soluble organic substances are released into the atmosphere from vehicles. These data are also relevant for Shida Kartli.

The source of pollutants is the transportation sector and the cement plant of Kaspi. Although the problem of emissions from cement production has been recently resolved, permanent monitoring and further improvements are still required.

Unfortunately, there are no objective or accurate data available on air quality. As a result of the severe economic crisis after 1990s, the air monitoring network of the hydro-meteorological department has gone out of order. The unavailability of modern data processing systems makes it very difficult to interpret data.

### DEFORESTATION AND GRAZING

The Liahvi Nature Reserve has been established in Shida Kartli to protect forest in the middle, upper and subalpine belt of the Liahvi Gorge.

Two main forms of unsustainable forest use can be distinguished according to the causes and subjects: (1) Forest logging to harvest timber and (2) logging to collect fire-wood. Forest logging via unsustainable





methods is often illegal. However, unsustainable logging can sometimes be legal, for instance, when logging operations are performed without taking into account the principles and ecological value of forests involved. Such clear-cutting causes disruption of forest land structure and forest fragmentation with an ultimate loss of forests and impairment of ecological functions. Poor planning and performance of logging operations by using technically and environmentally unfriendly technology also cause damage to the herbage and soil in the uncut upper forest and subforest. It should be noted that no systematic analysis of potentially hazardous effects of logging technology is conducted; it has an unsystematic nature during the planning and implementation of measures to avoid such effects. As a result, no measures to ensure natural regeneration are undertaken on clear-cut forest lands.

Grazing in forests adjacent to settlements is mostly excessive, far exceeding the natural potential of the forests. Excessive grazing damages the herbage, subforests and saplings. In turn, the damage to the herbage, subforest and saplings causes soil erosion and landslides, including loss of forest habitats. Among the factors contributing to excessive grazing are a lack of alternative incomes and, accordingly, a high level of poverty in agriculture as well as low level of environmental awareness.

### ENVIRONMENTAL AWARENESS

Although almost all environmental projects and programmes are aimed at providing information and raising the awareness of various target groups, the region's population seems unaware of the economic value of the environment and natural resources and their role in the improvement of the standard of living. This demonstrates the need for permanent and efficient public communication and awareness raising.

Various groups of society are not well aware of environmental problems. This also refers to decision-makers and private sector representatives including those who are directly engaged in the use of biological resources, as well as media, local government agencies, communities, children and young people.

### CLIMATE CHANGE PROBLEMS

The region of Shida Kartli is sensitive to climate changes, in particular, the region's semi-arid areas existing primarily in the Gori and Kareli municipalities.

The Gori weather station covers a part of these areas. Its data confirm the general warming trend in the semi-arid areas.

The main problem of agriculture in Shida Kartli is (1) high average annual wind speed and (2) high temperature. Ultimately, both of these components have the greatest impact on the semi-aridity of these areas, including vegetation.

The inventory of vegetation available in the area which is partly covered by the Gori weather station revealed the reduction or appearance of some varieties of wild plants which indicate the increasing aridness of the region. Such varieties can be used to observe changes in biodiversity, of which agricultural biodiversity is a part.

Based on information provided by the local government and population of the Kareli municipality, productivity has decreased considerably in such leading sectors as fruit and vegetable growing, including major crops in the Kareli municipality such as pears, peaches and apples, in particular, the traditional varieties. Agricultural pests have become more widespread. There has been a decline in the yield of tomatoes which fail to ripen in autumn due to early frosts. The reason for this phenomenon should be thoroughly investigated as warming in semi-arid areas can be revealed in autumn.

Due to frequent droughts in recent years, the harvest of vegetables (cabbage, potatoes) is almost fully destroyed even with the use of irrigation.

One of the most efficient measures to prevent climate change is energy saving and energy efficiency.





## VI. FACTOR ANALYSIS OF THE REGION (SWOT)

### SINGLE SWOT ANALYSIS OF SHIDA KARTLI

| S - STRENGTHS  | W - WEAKNESSES  |
|--|---|
| <ul style="list-style-type: none"> <li>• Central location in the Caucasian region, proximity to Tbilisi</li> <li>• Location near the East-West highway and railway</li> <li>• Favourable natural conditions</li> <li>• Fertile soil and rich water resources</li> <li>• Rich traditions of agricultural production, in particular, fruit-growing.</li> <li>• Tourism and recreational potential</li> <li>• Existence of all levels of educational institutions.</li> <li>• Partial improvement of transport and utility infrastructure, especially in cities</li> <li>• Support of international organisations in the implementation of regional projects</li> <li>• Cheap labour</li> </ul> | <ul style="list-style-type: none"> <li>• Conflict and occupied territory</li> <li>• High proportion of IDPs and other vulnerable groups</li> <li>• Poorly developed urban system</li> <li>• Poor diversification of economy</li> <li>• Low incomes of the population</li> <li>• Dominating share of natural agriculture and low competitiveness of agricultural production</li> <li>• Strong fragmentation of lands and a great number of small land holdings.</li> <li>• Lack and unavailability of agricultural infrastructure and services (irrigation, agricultural machinery, etc.).</li> <li>• Lack of education and innovative knowledge in agricultural industry and other businesses.</li> <li>• A large number of people below the poverty line</li> <li>• Unavailability of adaptable environment for people with disabilities</li> <li>• Poor utility services and malfunctioning systems, especially in rural areas</li> <li>• No public transport</li> <li>• High level of environmental pollution, soil degradation and deforestation; low environmental awareness</li> <li>• Lack of local/own financial resources</li> </ul> |
| O - Opportunities  | T - Threats   |
| <ul style="list-style-type: none"> <li>• More efficient and optimal use of the geographical location and natural resources</li> <li>• Development of urban system</li> <li>• Development of agricultural infrastructure and services</li> <li>• Substitution of import by local production</li> <li>• Introduction of new technology and innovative production methods</li> <li>• Raising of entrepreneurs/farmers' awareness</li> <li>• Development of organic agricultural production</li> <li>• Provision of utility services in settlements</li> <li>• Raising of environmental awareness among the population and administration</li> <li>• Increase of local incomes</li> </ul>        | <ul style="list-style-type: none"> <li>• Acceleration of conflicts</li> <li>• Large-scale reduction of population</li> <li>• Inconsistent policy of supporting local entrepreneurs (e.g. undocumented subsidies, unjustified interference, undifferentiated approaches, etc.).</li> <li>• Lack of local financial resources</li> <li>• Inefficient management by the administration and non-involvement of the population in the decision-making process.</li> </ul>  |





## NON-AGRICULTURAL ECONOMY AND BUSINESS ENVIRONMENT OF THE REGION

| S - Strengths  | W - Weaknesses   |
|--|--|
| <ul style="list-style-type: none"> <li>Proximity to the highway and railway</li> <li>Travel and recreational potential, rich cultural heritage</li> <li>Sites of traditional handicraft</li> <li>Full coverage of the territory by cellular networks</li> </ul>  | <ul style="list-style-type: none"> <li>Poor diversification of economic sector</li> <li>No private travel agencies; low level of coordination between travel agencies of Tbilisi and tourist sites of the region.</li> <li>Poor condition of territories adjacent to tourist sites; lack of entertainment facilities</li> <li>Poor condition of circumferential and internal roads in the municipality</li> <li>Low incomes of the population</li> </ul> |
| O - Opportunities  | T - Threats  |
| <ul style="list-style-type: none"> <li>Availability of long-term and cheap credit resources</li> <li>Functioning of insurance system</li> <li>Branding of tourist sites and distribution of information about such sites</li> <li>Improvement of transport and other tourism infrastructure</li> </ul> | <ul style="list-style-type: none"> <li>Political unrest and threat of Russian aggression</li> <li>Unsuccessful attempts of manufacturers to attract investments</li> <li>Stronger competition from other regions of the country</li> <li>Low purchasing ability of the population</li> </ul>   |

## AGRICULTURE

| S - Strengths   | W - Weaknesses   |
|---|--|
| <ul style="list-style-type: none"> <li>Favourable geographical location of the region and proximity to the country's largest market - Tbilisi</li> <li>Road infrastructure of national and regional importance</li> <li>Existence of agriculture as a traditional industry and its high importance for the country</li> <li>Soil suitable (favourable) for agriculture</li> <li>Existence of grasslands and pastures</li> </ul>   | <ul style="list-style-type: none"> <li>A dominating share of non-commercial, subsistence agriculture</li> <li>Poor competitiveness of local agricultural products in the market Non-compliance with standards and food safety requirements, high prices, seasonality of supplies, etc.</li> <li>Lack of higher and vocational agricultural education, shortage of qualified specialists Lack of knowledge in the field of agricultural management, technology and innovations.</li> <li>Production costs of farmers are higher than the prices of imported goods</li> <li>No requirement for cooperation of farmers or lack of clarity about the purpose of such cooperation.</li> <li>Parcelling of lands and small landholdings</li> <li>Unavailability of agricultural loans and insurance system</li> <li>Old and high-cost irrigation systems; inefficient management and wasteful use of water resources</li> <li>Inefficient management of agricultural equipment and poor development of equipment leasing services</li> <li>Non-existence or poor condition of internal access roads to land plots</li> <li>Processing agricultural industry is not developed in the region</li> <li>Use of substandard and falsified materials and agents in production</li> </ul> |
| O - Opportunities   | T - Threats  |
| <ul style="list-style-type: none"> <li>Elaboration and implementation of agricultural development strategy and efficient plan of actions</li> <li>Rehabilitation of irrigation systems and introduction of new irrigation methods</li> <li>Establishment of demonstration and pilot plots, seed nurseries and breeding farms</li> <li>Availability of loans and insurance</li> <li>Introduction of new technology and innovative production methods</li> <li>Establishment of consulting and training centres for farmers</li> <li>Substitution of imports by local production</li> <li>Development of organic agriculture</li> <li>Development of agricultural services</li> </ul> | <ul style="list-style-type: none"> <li>Natural disasters (hail, drought, hurricane, etc.)</li> <li>Barriers to investments due to political instability</li> <li>Inconsistent policy of the central or local government</li> </ul>   |





## INFRASTRUCTURE

### WATER RESOURCES MANAGEMENT

| S - Strengths   | W - Weaknesses  |
|---|---|
| <ul style="list-style-type: none"> <li>• Dense drainage network, existence of headwater structures</li> <li>• Supply of water to a major part of the population</li> </ul>  | <ul style="list-style-type: none"> <li>• Pollution of municipal drain waters</li> <li>• Illegal waste dumps in rural areas near rivers and water pollution</li> <li>• Poor condition of the irrigation systems.</li> <li>• Utility fees unaffordable to a certain part of the population</li> <li>• Supply of water in the Khashuri municipality in accordance with the strictly defined time schedule (3-4 hours a day)</li> <li>• Outdated water supply pipes</li> <li>• Lack of clarity as to who is responsible for water supply due to a deficiency of law</li> <li>• Insufficient funding to address the problem</li> </ul> |
| O - Opportunities   | T - Threats   |
| <ul style="list-style-type: none"> <li>• The legislation will clearly define the person(s) who are responsible for water supply systems</li> <li>• Recovery of water line costs, efficient management of utility fees</li> <li>• Use of drip and spray irrigation in agriculture</li> <li>• Elaboration of water resources management concept</li> <li>• Address water pollution problems due to waste dumps</li> </ul> | <ul style="list-style-type: none"> <li>• The population may be unable to pay high water supply fees</li> <li>• Possibility of the population's inappropriate attitude to the water management plan/concept</li> </ul>   |





## WASTE MANAGEMENT

| S - Strengths  | W - Weaknesses   |
|--|--|
| <ul style="list-style-type: none"> <li>• Regular waste collection in cities and roadside villages</li> <li>• Composting industry experience in Gori</li> </ul>   | <ul style="list-style-type: none"> <li>• No waste management plans at the regional and municipal levels</li> <li>• The region has no waste dumps complying with the international standards</li> <li>• Several illegal waste dumps in all settlements, mostly in ravines and in riverside areas</li> <li>• Non-payment of waste collection fees by the population</li> <li>• Sustainable waste management issues are not considered at the regional and municipal level</li> <li>• No waste minimisation policy and practices</li> <li>• Organic waste is not separated and composted by the population</li> <li>• Lack of funding to address the problem</li> <li>• No efficient mechanism to enforce pollution penalties</li> <li>• Lack of knowledge and experience to address the problem in the municipalities</li> </ul> |
| O - Opportunities  | T - Threats  |
| <ul style="list-style-type: none"> <li>• Development of a waste management strategy at the regional level and management plans - at the municipal level</li> <li>• Design and construction of one common waste dump compliant with the international standards</li> <li>• Sorting of wastes into two fractions: organic and all other wastes</li> <li>• Establish a composting enterprise to produce organic fertilisers</li> <li>• Ensure the delivery of organic waste to the composting enterprise</li> <li>• Establish an actual amount of waste collection fee and address the problem using the collected fees</li> <li>• Hold public awareness-raising campaigns as a result of which the population will learn how to sort wastes into at least two fractions and how to use organic waste</li> <li>• Raise the awareness of persons in charge of these issues in the municipalities in order to develop mechanisms for addressing the problem</li> <li>• Improve fee collection system</li> <li>• Devise efficient mechanisms for imposing and enforcing pollution penalties</li> </ul> | <ul style="list-style-type: none"> <li>• Insufficient funding to establish the enterprise</li> <li>• Population treats this issue irresponsibly preferring to dispose of garbage in customary locations (ravines and riverside areas) without sorting the waste.</li> <li>• The population cannot afford to pay higher fees for waste collection.</li> </ul>   |







## ENVIRONMENTAL PROTECTION

| S - Strengths   | W - Weaknesses   |
|---|--|
| <ul style="list-style-type: none"> <li>Diversity of forests in Shida Kartli Forest area occupies about 45% of the region</li> <li>The creation of the Liakhvi Nature Reserve</li> <li>Existence of Forest Code</li> <li>Law on protected areas</li> </ul>   | <ul style="list-style-type: none"> <li>Clear cutting of forest (deforestation) for the production of wood and construction materials</li> <li>The ecological value of forests is often disregarded</li> <li>Illegal forest clearance</li> <li>Use of environmentally unsound and technically unsafe technology for cutting</li> <li>No afforestation measures undertaken</li> <li>Excessive and intensive grazing which causes soil erosion and loss of habitat.</li> <li>Low level of environmental awareness in the regions</li> </ul> |
| O - Opportunities   | T - Threats  |
| <ul style="list-style-type: none"> <li>Strict control over forest cutting and grazing</li> <li>Impose penalties</li> <li>Repair of equipment</li> <li>Develop a new afforestation plan, raise the population's awareness and conduct trainings to involve the population in the afforestation process.</li> <li>Allocate special pastures which will be replaced once in several years for reclamation</li> </ul> | <ul style="list-style-type: none"> <li>Low awareness of population about forestry issues.</li> <li>Lack of finances for afforestation</li> </ul>   |

## SOIL MANAGEMENT

| S - Strengths   | W - Weaknesses   |
|---|--|
| <ul style="list-style-type: none"> <li>Diversity of soils</li> <li>Horizontal movement and filtration of air masses in the region depending on the terrain</li> <li>Favourable micro-climate of resort areas</li> <li>A small number of polluting industries</li> <li>Bio diversity</li> <li>The Liakhvi Reserve</li> <li>Existence of legislative framework (forest code, national strategy and the action plan "Environmental Awareness for Sustainable Development").</li> <li>Existence of a structural framework for formal education in the field of natural science</li> <li>Effect of international environmental initiatives, programmes and projects.</li> <li>Functioning of environmental NGOs in the region</li> </ul> | <ul style="list-style-type: none"> <li>Intensive soil erosion and salinity</li> <li>A small amount of humus in the soil</li> <li>Excessive grazing and deforestation</li> <li>Air pollution with mine dust</li> <li>Transport emissions</li> <li>Clear-cutting of forests</li> <li>Use of firewood by a major part of the population</li> <li>Air pollution by industrial emissions</li> <li>Clear cutting of forest (deforestation) for the production of wood and construction materials</li> <li>Environmentally unsound and technically unsafe technology used for forest logging</li> <li>Afforestation measures are rarely undertaken</li> <li>Intensive grazing.</li> <li>Soil erosion due to excessive grazing</li> <li>Low level of environmental awareness in regions</li> <li>No awareness of environmental risks at the regional and municipal level</li> <li>No efficient mechanisms for public communication and awareness-raising</li> <li>Lack of financial and human resources for organising diversified public campaigns at the local level</li> <li>Lack of environmental NGOs, low level of involvement</li> <li>The population's lack of information and knowledge of its own rights, low level of involvement</li> <li>The administration's disregard of public consultations</li> <li>Low interest of the population in public discussions</li> <li>No attention of media to environmental issues</li> <li>Fragmented nature of informal environmental education and lack of continuity</li> </ul> |





| O - Opportunities   | T - Threats   |
|---|---|
| <ul style="list-style-type: none"> <li>• Development of an efficient land use policy</li> <li>• Soil fertilisation</li> <li>• Prevent excessive grazing and deforestation</li> <li>• Raise public awareness about environmental issues</li> <li>• Provide enterprises with cleaning equipment</li> <li>• Inspect the condition of operating vehicles</li> <li>• Fuel quality improvement</li> <li>• Reduce deforestation</li> <li>• Strict control over forest logging and grazing</li> <li>• Development of an afforestation plan</li> <li>• Raise public awareness</li> <li>• The population's involvement in the afforestation process</li> <li>• Allocate special pastures which will be replaced once in several years for reclamation</li> <li>• Organise awareness campaigns</li> <li>• Improve teachers' qualifications and prepare educational materials</li> <li>• Manage resources for sustainable institutional development such as museums, national parks, schools, etc.</li> <li>• Include sustainable development principles in the relevant curricula of higher and vocational institutions</li> <li>• Make the Internet available to teachers and students</li> <li>• Integrate biodiversity issues in the curricular of pre-school, secondary and higher education institutions</li> </ul> | <ul style="list-style-type: none"> <li>• Inappropriate attitude of the population to the environmental issues</li> <li>• Lack of financial resources</li> <li>• Natural disasters</li> <li>• Hostilities</li> </ul> |

## SOCIAL SECTOR

| S - Strengths   | W - Weaknesses   |
|---|--|
| <ul style="list-style-type: none"> <li>• Existence of all levels of educational institutions in the region</li> <li>• Central government aid programmes for socially vulnerable layers</li> <li>• Comprehensive state healthcare programme</li> </ul>   | <ul style="list-style-type: none"> <li>• Lack of pre-school institutions in rural areas</li> <li>• A large number of people below the poverty line</li> <li>• Unavailability of adaptable environment for people with disabilities</li> <li>• High concentration of IDPs in the region</li> <li>• Location in the conflict area</li> </ul> |
| O - Opportunities   | T - Threats  |
| <ul style="list-style-type: none"> <li>• Introduce alternative modules of pre-school institutions in relevant settlements.</li> <li>• Strong support of international donor organisations</li> <li>• Development of a long-term approach in the social sector</li> <li>• Involvement of IDPs and other vulnerable groups in business (e.g. creation of business incubators, social enterprises).</li> </ul> | <ul style="list-style-type: none"> <li>• Acceleration of military conflicts</li> <li>• Economic crisis</li> </ul>  |





## VII. THE REGION'S DEVELOPMENT PRIORITIES, TARGETS, OBJECTIVES AND EXPECTED OUTCOMES

### REGIONAL DEVELOPMENT PRIORITIES

- Constant development of agricultural production
- Development of agricultural businesses
- Development of
- other businesses (except for agricultural) focused on the region's available resources
- Existence of human capital assets required for the development and supply of necessary services
- Priority: Existence of environmentally safe and comfortable environment

### AGRICULTURE

#### Target 1. Develop farms by means of consolidation

##### Objectives

- Consolidation of small farms
- Raise small landowners' awareness of consolidation
- Voluntary agricultural cooperation
- Systematic performance/completion

of primary land registration

#### Target 2. Develop agricultural production by introducing and applying modern technological methods and materials in the agricultural production

##### Objectives

- Production and use of high-yield varieties and seed materials
- Increase the number and quality of nursery gardens
- Continue mechanisation/modernisation of multi-functional agricultural machinery
- Availability of fertilisers and other chemical agents
- Import hail protection nets
- Rehabilitation and modernisation of irrigation and melioration systems
- Road infrastructure improvement (internal rural roads)
- Provide storage facilities for harvest

#### Target 3: Inform farmers about modern practices and experience, introduce innovative methods in the sector

##### Objectives

- Hold long and short-term **trainings and workshops**
- Creation of **demonstration/pilot farms**
- Availability of **market and technology information**
- Participation and organisation of **agricultural forums and exhibitions**

Importance of establishing and supporting international and regional cooperation and contacts in this sector

### EXPECTED OUTCOMES

Implementation of the above-mentioned proposed changes in the agricultural sector will likely bring about the following positive developments:

**Better access of local production to the market** as a result of the following factors:

Production of competitive (cheap and high-quality) production in the region

Faster development of the domestic market during a year by means of import substitution

Export of products and search for new prospective markets

**Attraction and involvement of financial and insurance institutions in the agricultural business** If agricultural production becomes more or less profitable, the key market players - banks and insurance companies - might become interested in cooperation with the sector which means:





Availability of affordable (cheap and long-term) loans

Functioning of agricultural insurance system

### **Greater diversification of agricultural sector and adaptation to market demands**

Identification and development of other competitive sectors in addition to fruit and cereals growing such as livestock, poultry, fishing, bee-keeping and other sectors

Production of untraditional fruit and vegetables which are in demand due to the agricultural and climatic conditions of the region

### **Government's role in the achievement of purposes**

#### **Purposeful and moderate involvement of the government in supporting agricultural business and local farmers**

- Analysis of the sector's development prospects
- Provision of basic agricultural infrastructure
- Investments in the improvement of knowledge and introduction of innovations
- Introduction of correct/flexible management forms and cooperation between the private and public sectors

#### **Creation of equal conditions for farmers inside the country and with regard to importers**

- Exclusion of private and group interests detrimental and unfair to local farmers

### **Target 4. Develop the processing and storage cycle of agricultural production**

#### **Objectives**

- Processing of local agricultural production: production of juices, preservatives and ready-made products.
- Foster the creation of agricultural production storage system
- Foster the creation of storage facilities, cooling units, mills and meat producing shops.
- Production of loading and packaging units for agricultural production.

### **Target 5. Develop the service sector**

#### **Objectives**

- Creation of agricultural machinery repair shops
- Establishment of agricultural consulting services .

### **Other sectors of economy**

#### **Target 1. Promote further development of tourism and recreation**

#### **Objectives**

- Establishment of travel companies
- Professional development of human resources
- Development of eco and agro tourism, cultural and active extreme tourism and resorts (including marketing research and campaigns)
- Provision of the existing tourist sites (the Stalin museum, Uplistsikhe) with updated information and appropriate travel services
- Attraction of tourists to religious and sacred sites (e.g. Kintsvisi, Atenis Sioni)
- Promotion of handicrafts
- Greater focus on inbound tourism and recreation

#### **Target 2. Develop construction business and production of building materials**

#### **Objective**

- Higher production of sand and crushed rocks from the Mtkvari river-bed.
- **Target 3. Develop logistic services**

#### **Objective**

- Development of various cargo transportation services Suitable location of the region for the development of the business





## **Target 4. Produce energy from water and alternative sources**

### **Objectives**

- Focus on solar energy production
- Promotion of alternative energy sources (e.g. biofuel)

### **Social sector**

## **Target 1. Promote further development of education**

### **Objectives**

- The region's economic priorities and local market demands should be widely considered in the curricular of the region's higher education institutions, colleges and vocational institutions.
- Deepening of domestic and international contacts and participation in professional networks
- Knowledge of informational and communications technology and foreign language(s)
- Provision of incentives for qualified staff to work and stay in the region (including staff from other regions and countries)
- Establish cooperation between businesses and universities

## **Target 2. Ensure accessibility of healthcare services and social involvement**

### **Objective**

- Provision of vulnerable groups with medical services
- Social integration of vulnerable groups - people with disabilities, IDPs, pensioners and low-income families.

## **Target 3. Provide decent dwellings**

### **Objectives**

- Creation of healthy and comfortable living conditions
- Supply of utilities (water, gas, sewer, electricity, etc.) to cities and villages

### **Urbanisation**

## **Target 4. Expand cities and foster urban life in the region - urbanisation**

### **Objectives**

- Promotion of a new, competitive economic environment and job creation in cities
- Creation of alternative non-agricultural jobs in rural areas

### **Environmental protection**

## **Target 1. Raise environmental awareness and education**

### **Objectives**

- Increase of the population's environmental awareness
- Provision of information about risk mitigation in case of natural disasters

## **Target 2. Sustainable water management**

### **Objectives**

- Use of new cost effective methods in water supply and irrigation/melioration (e.g. drip and spray irrigation)
- Prevention of water pollution
- Efficient monitoring of water abstraction
- Repair of municipal sewage treatment systems

## **Target 3. Improve soil condition**

### **Objectives**

- Implementation of measures to prevent soil erosion, salinity and reduce humus
- Prevention of excessive grazing and desertification

## **Target 4. Establish one modern waste dump in the region**

### **Objectives**

- Prevention of pollution by domestic waste and chemicals
- Sorting of wastes into at least two fractions: Organic and all other wastes
- Address the issue of accumulated hazardous waste removal and utilisation





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**Target 5. Protect the forest eco-system and biodiversity**

**Objective**

- Stop and prevent deforestation, especially, in proximity to settlements

**Target 6. Foster environmentally sustainable practices**

**Objective**

- Restore the air quality monitoring station in Kaspi and open a similar station in Gori



