

TR83 REGION STATE OF PLAY REPORT

SOCIAL STRUCTURE

POPULATION AND DEMOGRAPHIC STRUCTURE

TR83 Region covering Amasya, Çorum, Samsun and Tokat provinces with an area of 37.600 km² constitutes 5 % of Turkey's total area. The total population of the Region is 2.739.400 corresponding to 3.7 % of Turkey's population. Samsun has the biggest population (1.250.000) followed by Tokat (624.000) and Çorum (540.000). Amasya, on the other hand has the smallest population (324.000). The population growth rate in the region has started to decrease since 1980s. Whereas between 1927 and 2009 TR83 Region's population tripled, Turkey's population increased by 5 times. Among the reasons of this downtrend are decreasing birth rates and immigration outside the Region. The density of population is 73 km²/people. Samsun is the only province in the region which has higher population density than Turkey's average with a density of 138 km²/people.

Looking at the demographic structure of the population, it can be seen that at all age groups female and male population has a balanced distribution, however the difference between males and females grows after the age 55 in the favour of females. On the other hand, the working age population is still dominant. Yet, the dropping birth rates and improving health services increase the life expectancy rates both in Turkey and in the Region resulting in widening of over 55 age group.

Comparing to urbanization rates of TR83 Region and Turkey, the former has had lower rates for all time periods. Samsun has the highest urbanization rate in the region with 65% and after that come Çorum (64%), Amasya (63%) and Tokat (57%). As the agricultural sector in the region dissolves, many people immigrate outside the region to big cities Ankara and İstanbul where social and economic opportunities are abundant. The net immigration rate for the period of 2008-2009 is -4,71 %. Çorum has the lowest net immigration rate in the region. The population projections taking into account the immigration, birth and death rates point out that the population of the region is going to decrease 5% by the year 2023.

EDUCATION

Without doubt education is one of the cornerstones of sustainable development. Increasing the accessibility of education alone is not enough. Besides, maybe more important than accessibility is increasing the quality of education.

Concerning the education sector, TR83 Region ranks 13th among 26 Nuts 2 regions. When the literacy rates is analyzed in the region between the years of 2000 and 2009, although it is possible to talk about an improvement which can be linked to the imposition of compulsory primary education in 1997, all provinces of the region except Amasya still remains below the national average.

Looking at the level of education completed among the literate population in 2009, it is quite possible to see that the provinces of the Region are not very successful. In parallel to this fact, although all provinces rank above the national average in terms of primary school graduation (5 years), the national average cannot be caught in

other levels of education. Only Amasya is above the national average in terms of primary school graduation rate (8 years) in the region. When the school enrollment rates are analyzed in the same educational levels, while Amasya and Samsun rate above the national average, Tokat and Çorum remain under the national average. One other education level, pre-school education is of great importance in terms of building a real foundation of learning in primary and secondary education, facilitating the transition from school to work, encouraging adults to learn, ensuring consistency between the components of the system, renewing the system resources and encouraging the lifelong learning. When the pre-school enrollment rates in 2009-10 Education Year is analyzed, it is seen that all provinces of the region except Çorum has a performance over the national average in both two age groups (3-5 and 4-5). Particularly Amasya is very successful in these statistics. 3-5 age group compared to 4-5 age group has a lower rate of enrollment in Turkey in general.

Looking at higher education institutions in the region, it is seen that each province has a public university. In addition Canik Başarı University, the establishment of which has been endorsed by the Higher Education Board (YOK), is going to be the first private university of Black Sea Region and as a result of this, Samsun is going to be the only city of Black Sea Region with two universities. On the other hand, the number of academicians that is 2.818 in total in 2009-10 Academic Year does not display a balanced distribution among the universities. Ondokuz Mayıs University located in Samsun has the largest share, whereas Amasya University has the lowest one. While the number of professors giving lectures in Ondokuz Mayıs is 229, it is 4 in Amasya University. The main reasons for the lack of teaching staff are the existing bureaucratic structures, inadequate financial resources provided to

academic staff and relatively low level of urban amenities offered by the provinces of the region. For a better quality and trouble free higher education the positions should be made more flexible and academic advancement should completely be connected to basis of scientific merit. In the region the university which has the highest number of graduates and students enrolled is Ondokuz Mayıs University. Moreover, Ondokuz Mayıs University is outstanding among the others in terms of the published publications. It is followed by the Gaziosmanpaşa University.

Since school education is not enough to meet all the needs of a changing world, non-official education which can be named as life-long learning as well is of great importance. The total number of public institutions operating in the field of non-official education in the region is 485, the number of teachers is 3.686 and the number of classrooms is 3.071.

Looking at the education-employment relationship in different sectors in the region, the sector in which the education level is the lowest is agricultural sector. The percentage of illiterates in agricultural sector is equal to the 95.79 per cent of total number of illiterate employed people in the region. The largest portion of the people employed in industry sector has education below high school. The sector which has the highest level of education is service sector.

HEALTH

Each individual's accessibility to health services equally whenever they need, contributes highly to wealth of the society and to the development of human capital. Looking at the general statistics of the region, we see that there are 57 hospitals and 8.692 beds in total. Among these hospitals five are private hospitals and the share of private hospitals in terms of the number of beds constitutes the 3 % of the total number of beds in the hospitals of the region. The number of personnel working at these institutions are below the average of Turkey. The number of inhabitants per doctor is 758 in the region and 633 in Turkey (2006). The fullness of the beds in the hospitals is below the average of Turkey. The lowness of these rates shows that the capacity cannot be used widely.

One of the important improvements in the realm of the health in recent years is the Health Transformation Programme and within this the Family Doctor Programme. The Family Doctor Pilot Implementation Programme has started in 2004 in Turkey. Today all the cities in the region are under this programme. At the same time, in order to increase accessibility to health services in 2000 mobile health services began to be implemented. Moreover, the decrease in the infant mortality rates is another sign of improvements in health services. In addition to these the medicine schools of universities of Ondokuzmayıs in Samsun and Gaziosmanpaşa University in Tokat contribute to raising quality of the health services.

CULTURE

TR83 Region has a rich cultural background with its history going back to 15.000 years ago. Changing world conditions, however, poses the loss of cultural continuity. Another threat in the region in terms of cultural assets is the low awareness of the protection and sustenance among the public.

Looking at the provinces of the region in terms of communication resources and social spaces, Samsun has become a centre of culture and art depending on its developed economic structure and as a result this makes the city an attraction centre, all of which cause changes in population structure and density of the city. In terms of the number of the libraries, theatre halls, cinemas and printing houses, Samsun is followed by Çorum in the region.

EMPOWERMENT OF WOMEN

While the male population of TR83 Region is 1.360.833, the number of women is 1.378.654. Education is one of the main factors determining the status of women in the region. The literacy rate of women that is 79 percent in 2000 has been raised to 85.7 percent in 2008. When a comparison in terms of the level of completed education is made for both sexes, it is seen that except primary school graduation, the rate of men is higher than the graduation rate of women at all other levels.

Labour force participation rate of women is very low in the region. This is 72.3 percent for men whereas it is only 39.8 percent for women. Although it is higher than the rate of Turkey in general, it is low in comparison to the rate for men. The main reasons behind this are the low level of women's education and insufficient

qualifications of women. Labour force participation rates of women in 2009 increased compared to 2008 both at regional and national level. Employment rate of women in the region is parallel to their labour force participation rate and although it is above national labour force participation, it is rather low compared to men. While an increase has been occurred in women's unemployment rate at national level from 11.6 percent to 14.3 percent, a decrease from 6.0 percent to 5,9 percent has been observed at the regional level. However, in the rural areas employment is in the form of unpaid family labourer. Therefore, unemployment or disguised unemployment as a problem continues to exist in the region. Over the years in terms of the sectoral distribution of employment, although a decrease has been observed in the share of agriculture for both men and women, the difference between the sexes requires attention. The total share of agricultural sector in employment in the region is 51.6 percent. This rate is 38.28 percent for men while it rises to 72.86 percent for women. Thus, the sector in which women's employment is highest in the region is agriculture, which is followed by service sector. However, the employment rate of women in industry and commerce is very low. Women labour is mostly preferred in labour-intensive industries like textiles and garments due to being cheap.

Strengthening women's representation in political decision-making is another important point for promoting gender equality and increasing women's participation in economic and social life. Among the parliamentary deputies of 23th period of the Turkish National Assembly, the total number of which is 21 in TR83 Region, there is only two women. Moreover, according to the results of 2009 local elections, there are no any female mayors in the region.

EMPLOYMENT

In this section labour force participation, employment and unemployment rates are examined in terms of different variables. In that regard, household labour force survey of Turkish Statistical Institute has been used. However, since 2000 it is not possible to find detailed information at provincial level, the basic employment indicators at provincial level are obtained indirectly through “management of small area estimates” since 2008.

Labour force participation rate has been decreased from 1980 until 2009 in the provinces of the region. Still all of the provinces of the region are over the national average. Among these provinces the lowest labour force participation rate was in Amasya until 2009, which has been Tokat until then. The labour force participation rate that is 55.1 percent at the regional level in 2009 is 47.9 percent at national level. Looking at the labour force participation rate in accordance to educational attainment, it is seen that while the highest labour force participation rate is among the high school graduates, the lowest rate is among illiterates. This is followed by university, high school and vocational school graduates. The highest participation rate in terms of age groups is in 25-34 age group that is followed by 35-54, 20-24, 55+ and finally 15-19 age groups.

Likewise labour force participation in terms employment in all provinces of the region are above national average. The main sector creating employment in the region is agricultural sector. The regional employment rates in other sectors are

below the national averages. Although the share of agricultural sector in employment creation decreased from 2004 to 2009 both in the region and in Turkey, unlike in Turkey, the sector still maintains its importance in the region. The share of agriculture that was 51.6 percent in 2009 in the region was 24.7 percent at the national level. Looking at the sectoral distribution of men and women, it is seen that a large majority of women is employed in agricultural sector (73.1%). This ratio is much higher than the national average that is 41.7 percent. In all three other sectors other than agriculture male employment rates are higher than women employment rates. Accordingly the employment rates of women in industry, commerce and service sectors are respectively 5.2 percent, 6.4 percent and 15.3 percent.

Looking at the unemployment figures the total unemployment rate and the unemployment rates of men and women separately are under country average. The unemployment rate at regional level in 2009 was 6.9 percent, which was 14.0 at national level.

Looking at the sectoral distribution of employment, the details of which has been given above, an economy in which the main sector generating employment is agricultural sector creates both advantages and disadvantages. The advantage is that the prevailing agricultural sector, that is very large in the region, creates employment opportunities for unskilled labour, while the disadvantage is that the large proportion of the labour force employed in agricultural sector is unpaid family labourer and insufficient employment rates stemming from the inability to transfer the resulting value to agriculture based industry. Women are the ones most affected by

this situation. The employment rate of women in agricultural sector in the region is 73.1 percent and it is generally in the form of unpaid family labourer. Therefore, it can be said that unemployment or disguised unemployment continues to exist as a problem in the region. The inability to transfer the resulting value to agriculture based industry and related insufficient employment rates are among the most significant problems of the sector. Transferring employment to agriculture based industry is believed to increase employment opportunities, the development of agricultural industry, registered employment, the number of paid employees and the regional income and living standards. As a result of all this, reduction of migration and social problems in the context of migration and unemployment will be realized in the region.

WORKING LIFE AND SOCIAL SECURITY

Among the economic sectors, agriculture generates the biggest employment rates in the region and as a consequence of this, the unregistered employment is very high. The total rate of people working at the agricultural sector is 52 percent which in return increases the rate of unpaid family workers. On the other hand, the enterprises in the region are widely small enterprises which employ no more than 9 workers. The social security statistics reveal that the majority of workers in the region are male. Also, average daily income rate is lower for female workers. The rate of workers under a trade union is low especially among those who work at smaller enterprises.

With the social security services it is aimed to provide a minimum income and living standards for every individual in the society. Among the provinces in the region

Çorum and Samsun have the highest rate of people outside the social security coverage. Amasya, on the other hand has the lowest rate. In Turkey there are three kinds of social security structures under the Social Security Institution: Bağ-Kur - for Self-employed Retirement Fund for Civil Servants, Social Insurance Institution for Workers (SSK) employed under a service contract. In the region 54 percent of employees are under SSK, 28 percent and 18 percent are under Bağ-Kur and Retirement Fund respectively. The total number of labour force in the region is 1.005.000 in 2009. The ratio of active workers to the population of the province is highest in Amasya (21,22 percent) and lowest in Tokat which indicates the highness of the unregistered workers. In total there are 375.000 unregistered workers in the region. Although the rate of unregistered workers decreases year by year in 2009, the rate is still 63 percent. This situation is related closely to the number of people working unregistered in the agricultural sector (51 percent of total employment) that is 92 percent.

The poor in the region does not have social security coverage under SSK, Bağ-Kur or Retirement Fund. The main problems poor people are complaining about are unemployment, the difficulties in meeting the basic needs, the expensiveness of health services and educational expenses (YHGP, 2006). In order to realize social inclusion it is necessary to have a wholistic approach to development including decreasing the differences in income distribution, improving the employment conditions, providing of equal access to health services and improving of housing quality.

INSTITUTIONALIZATION

Under the central administration of Turkey there are 4 governorships and 47 district administrations in TR83 Region. The only metropolitan municipality is Samsun Metropolitan Municipality which is one of the 16 metropolitan cities in Turkey. The total municipality number is 181 and there are 107 unions of local administrative units.

On the other hand, civil society organizations are very important in forming of societal consciousness. In Samsun there are 1627 associations, in Tokat 565, in Çorum 545 and in Amasya 378. The foundation numbers are 44 in Samsun, 33 in Tokat, 39 in Çorum and 16 in Amasya.

Among the 181 Commerce and Industry Chambers 18 are situated in TR83 Region. 4 of these chambers are in Amasya, 3 in Çorum, 6 in Samsun and 5 in Tokat. Moreover, 9 of 113 commerce exchanges are in TR83.

Samsun, with 72 chambers, has the highest number of active chambers in the region. Çorum follows Samsun with 42 chambers, then Tokat comes with 35 chambers and Amasya with 28 chambers. The ranking of the provinces in terms of active chamber membership is as Samsun, Tokat, Çorum and Amasya.

ECONOMIC STRUCTURE

AGRICULTURE

The share of agriculture tends to diminish both in Turkish and TR83 Region Economies. However, the sizes of the agricultural income in the region, the rural population and the agricultural employment ratio indicate that the sector is still prevalent in the regional economy. The region is quite rich in terms of agricultural land and production. Proper conditions for cultivating many species of plants and animals exist in the region.

The share of agriculture in regional gross value added (GVA) fell down from 22,7 percent in 2004 to 19,2 percent by 2006. This ratio is more than twice the share of the sector in the Turkish economy which is 9,4 percent. TR83 Region produces 5,7 percent of the agricultural GVA in Turkey. On the other hand, the ratio of agricultural employment in the region decreased from 60,9 percent to 51,6 percent between 2000 and 2009. Among 26 NUTS2 regions in Turkey, TR83 Region ranks second in terms of population employed in agriculture and fourth in terms of agricultural employment ratio.

The ratio of medium-sized agricultural enterprises in the region is below the overall national ratio of medium-sized agricultural enterprises. Small agricultural enterprises bring about many problems. Small enterprises can't easily get a big share in the market because they mostly produce for their own household consumption and can't make standard mass production. This situation causes low agricultural incomes, the farmers' interest in agriculture to decrease and an acceleration in migration from rural areas to urban areas.

The vegetal production in the region was 8,42 million tons in 2008 and this amount meets 7,12 percent of total national production. Among NUTS2 regions, TR83 Region ranks fourth in cereal and other vegetal production, third in vegetable production and fourteenth in fruit production. The vegetal production value per person is 1700 TL in the region, while the same value for the country is 923 TL. Whereas TR83 Region comes ahead in Turkey in terms of vegetal production amount and efficiency, the regions vegetal efficiency values are far below those values in the USA and some European countries.

Some of the main vegetal products of the region are: barley, rice, green lentil, potato, cannabis, soybean, sugar beet, onion, red beet, green bean, cabbage, grape, apple, pear, peach, cherry, hazelnut and walnut. The efficiency of these products should be increased and marketing activities should be improved in order to make these vegetal products regional brands and increase their share in value added of the regional economy.

Between 2001 and 2008 the amount of greenhouse vegetable production increased by 46,2 percent and the region's share in the overall national production reached to 2,31 percent. Agricultural income can be increased by spreading greenhouse vegetable production in micro-climate areas and other areas close to the the sea. In terms of organic agricultural production, the region has only 1 percent share in Turkey. Although the region has the ecologic structure necessary for organic agriculture, so far this potential has been underutilized.

The region's proper climate and rich vegetation provide essential conditions for animal husbandry. Animal husbandry enterprises in the region are mostly small-sized and 98,7 percent of them engage in both vegetal production and animal husbandry.

Agricultural enterprises in the region breeds an average of 3,9 sheep and 4,4 cattles.

TR83 Region has a high potential with regard to cattle breeding. Among NUTS2 regions, TR83 Region ranks second both in terms of total numbers of cattle and culture hybrid cattle, third in terms of numbers of domestic cattle and tenth in terms of numbers of culture breed cattle. The small number of culture breed cattle makes the efficiency values per cattle of the region decrease.

The region ranks fourth among NUTS2 regions with respect to cattle milk production. This stems from low milk efficiency values per cattle in dairy cattle enterprises. The amount of meat production which was 26.602 ton in 2002 has decreased by 32 percent as of 2009. This decline in meat production entailed high rises in meat prices in 2009 and 2010. The region ranks seventh with respect to total meat production. Considerable portion of domestic cattle in the region causes meat efficiency per unit of animals to drop.

Çorum and Samsun are the foremost production centers in Turkey in egg poultry and broiler production . TR83 Region accounts for 9,2 percent of total egg poultry production in Turkey. The region ranks third in terms of egg poultry production and thirteenth in terms of broiler production. TR83 Region, accounting for 8 percent of overall national egg production, ranks fourth among 26 NUTS2 regions. On the other hand, the region ranks tenth with its 9.100 tons of poultry meat production in 2009.

There is a significant potential in TR83 Region in terms of improving production of fisheries. Samsun is the most important province in the region in terms of production and marketing of fisheries because all fish species living in the Black

Sea can be hunted in Samsun and marketed to the inland regions. However, seasonal fish production can sometimes be more than the demand. By improving and spreading enterprises using preservation technologies like refrigerating, canning and salting fish which is hunted over the demand, value added created by fishery can be increased in the region.

TR83 Region is rich in terms of forest stock such that 35,2 percent of the region is covered with forests. Nevertheless 48,6 percent of the region's forests is poor in quality and the efficiency of the region's forests are below that of neighboring regions . Although the region's forest area accounts for 6,3 percent of Turkey's total forest area, the region's share in national forestry gross domestic product was only 3.85 percent in 2001. Moreover, forestry accounts for only 0,3-0,4 percent of total gross domestic product in the provinces of the region.

Regional forests embody many products that can be exploited properly. Unconscious consumption of these products brings about threats like decline in forest stock, increase in erosion and acceleration in migration from forest villages to urban areas. 82 percent of the region's villages are forest villages. There has been an intensive migration from forest villages to cities in the region between 2000 and 2008 which indicates the socio-economic problems in the forest villages.

INDUSTRY

According to the Gross Domestic Product (GDP) data of 2001 announced by Turkish Statistical Institute (TÜİK), TR83 Region ranks the 10th among 26 NUTS2 regions. However, the region is the 15th in terms of GDP per capita. Although the share of the region in GDP and total country population has decreased over the past years, the ratio of GDP to population which was 0,65 in 1987 rose to 0,72 as

of 2001. GDP per capita has increased in the region because the population decreased more than the regional GDP. In the region agriculture has the largest proportion in national GDP which was followed by service and industry sectors respectively.

The share of agriculture which was 30% in 1987 decreased to 20% as of 2001. At the same time period, share of agriculture decreased from 17.8% to 12.1%. While the share of industry increased from 15.7% to 19.4% in the region, it remained stable in the country. The share of agriculture in regional GDP decreased in favor of industry, which was decreased in favor of service sector in the country. This is related to low level of industrialization in the region.

Tokat is the most outstanding province in terms of industrial production according to the data belonging to period between 1987 and 2001. The main reason behind this potential is the existence of large scale industry plants owned by the public. Closure of some of these public plants as a result of privatization process possibly have a negative effect on industrial potential of the province.

Çorum is considered as one of the new industrial centers which was developed after 1980s and which ensured this development by its own resources. The main factors behind Çorum's becoming an industrial center are the establishment of organized industrial zone due to being one of the priority development regions and turning of accumulated capital in the province into new investments.

If the regional gross value added is compared to the country average, it can be said that the share of industry is quite low. While the share of agriculture in

regional gross value added is above the share of the industry in 2004, it decreased below the share of industry as of 2006.

However, regional economy still depends heavily on agriculture compared to country. Employment in agriculture sector is also very high in the region. While the share of agriculture in employment is about 25% in the country, it is about 50% in the region. Employment in industry in the region is quite below the country average which is 26%.

Manufacturing industry is the most prevalent within the whole industry sector in terms of employment and the number of business in the region. While the manufacturing industry is export oriented, mining and quarrying industries are import oriented. Outstanding sectors according to location quotient analysis, specialization matrix and shift share analysis are as follows:

- Manufacture of food products and beverages
- Manufacture of wood and wood products (except furniture)
- Manufacture of medical, precision and optical instruments, watches and clocks
- Manufacture of furniture, manufacture not elsewhere classified
- Manufacture of basic metals
- Manufacture of other non-metallic mineral products

Thanks to high agricultural production, manufacture of food products and beverages sector has developed in our region. Manufacture of wood and wood products sector is homogenously distributed countrywide and is important in terms of employment both in TR83 Region and other regions except traditional industrial centers.

Manufacture of other non-metallic mineral products in the region mainly includes brick, tile, cement, lime and marble production. Manufacture of medical, precision and optical instruments, watches and clocks is a sector concentrated in most advanced regions due to advance technology and qualified staff requirement. TR83 Region comes after three biggest cities in terms of number of business and employment. The companies in this sector mainly produce medical devices and machinery (serum set, blood pressure monitor, blood measurement machine, etc.), hospital equipments and machinery(sterilazator, autoclave, oven, x ray machine), injector and syringe, surgical instruments, orthopaedic appliances, laboratory equipments and operating table.

Basic metals and furniture manufacturing concentrate in developed cities like İstanbul. Although location quotient in these sectors is over 1 in the region, the share of TR83 Region in the sector is relatively low.

According to revealed comparative advantage ratios regarding the export and import volume, high competitive products in the region are as follows;

- Non knitted cloth and accessories
- Milling products, malt, starch, inulin, wheat gluten
- Beverages, alcoholic beverage and vinegar
- Knitted garment and accessories

Low competitive products are as follows;

- Organic chemical products,
- Mineral fuels

- Cereal,
- Pharmacy products,
- Oil seed and fruits, industrial crop, straw, animal food,
- Food industry residual, ready animal food

The most important mine resources of the region are bentonite, marble, lignite, antimony and chrome. While Samsun has limited potential in terms of mine variety and reserve, other cities in the region have rich groundwater resources. In Tokat, there is high amount of metallic and industrial raw material reserve such as antimony and bentonite. Coal, copper, lead, zinc, manganese, bentonite and ceramics-refractor clay are the mine resources of Amasya. Among these coal, marble and chalk are processed. In Çorum various type of metallic and industrial rawmaterial stratum can be found.

The region has rich geothermal resources along the North Anatolia fault line. These resources are utilized in thermal springs for cure or treatment. Thermal springs in the region are Havza and Ladik in Samsun; Gözlek, Hamamözü and Terziköy in Amasya; Figani and Hamamlı çay in Çorum and Reşadiye, Artova and Sulusaray in Tokat.

TR83 Region has also hydroelectric energy potential and renewable energy sources. The region ranks 19th among the 26 NUTS2 regions in terms of electricity consumption per capita, whereas it ranks 11th in terms of electricity production. The region has hidrolic and thermal electricity production capacity. Electricity is produced mostly in hydroelectric power plants in the region.

Electricity consumption is the highest in industry sector among the other sectors. The share of electricity consumption in industry within total electric consumption is 38%, whereas household electricity consumption is 33% in the region. In the country these ratios are 46% and 24% respectively.

Wind power potential of the region is not high enough to produce electricity. Black Sea Region has the shortest sunshine duration within the country so solar power potential is very low. Bioenergy is obtained from living organisms and their derivatives. Bioenergy is classified into biodiesel, bioethanol and biogas. Bioethanol is derived from sugar beet, corn and wheat which are widely produced in our region. 8,2% of the sugar beet, 3,24% of the corn and 9,7% of the wheat in the country is produced in TR83 Region. Likewise 21% of soya bean, 4,52% of sunflower and 1,45 of rapeseed is produced in TR83 Region which are used for producing biodiesel.

Biogas also can be derived from urban and animal waste in the region especially in Çorum where winged animal husbandry is widespread.

There are 27 small industry sites and 16 organised industry zones in TR83 Region as of 2009. Food Organised Industrial Zone in Samsun and Suluova Fattening Organised Zones are specialized zones. Samsun Free Zone, which is located in Samsunport and was established to increase investment and production, attracts foreign investment, increases the integration of the region with foreign markets, makes import cheaper and increases employment rates. Samsun Technology Development Center, which was established to provide technical knowledge for the

industrial projects with cooperation of Samsun Chamber of Commerce and KOSGEB, is located within Ondokuz Mayıs University campus area.

There are 2 technoparks in Middle Black Sea Region region, one is in Samsun and the other is in Tokat. In addition, there are 2 business development centers namely Samsun İŞGEM and Çorum KİŞGEM (For women). There are also 9 commodity Exchange markets in the region 3 inÇorum, 4 in Samsun and 2 in Tokat.

In the past, Samsun-Kastamonu-Erzurum Regional Development Program was implemented in this region, which supported SMEs . Middle Black Sea Development Agency implemented a call for proposals program for SMEs called Financial Support for Increasing Competitiveness and Foreign Expansion of Enterprises, which was the first call for proposals program of the Agency. The main objective of the program is to encourage sustainable economic development in TR83 Region, to increase competitiveness of enterprises, to support opening out, to help them have high technology and qualified work force, and to be able to adapt to changing conditions as well as to increase the capacity of the region in implementing financial support programs compatible with local priorities. Within the framework of this program 79 SMEs were supported.

SERVICES

Nowadays, because technology is constantly developing, the quantity and quality of the services increase. The communication, construction, tourism, financial structure and banking, foreign trade are included in services. When looked at Gross Added Values, services are in front of agriculture and industry; but compared to other 26 NUTS2 regions, TR83 is in the middle. Except Tokat, Gross Domestic Product (GDP) numbers of 3 other TR83 cities show that the services get more than 60 percent share.

There is no serious problem at communication sector. As technology develops, fixed telephone users decrease and gsm users increase. There exists a large internet network in the region; but the cable TV service is only available in Samsun. Over the years, construction sector percentage is decreased both at TR83 region and Turkey at gross domestic product. It can be concluded that when the speed of population growth decreases, the demand also decreases. Samsun nearly has half of the sector numbers of this region. Except Samsun, the winter is long; therefore the construction period per year is short. Due to this fact, the amount of time per construction gets longer and the cost increases.

At tourism sector, the region has a lot of a lot of alternatives: historical, cultural, nature, cave, belief, sea, winter, plateau and thermal. With all these types of tourism, this region deserves more than 1 percent of the sector in whole country. Having all 4 types of transportation (air, rail, road, water), region has an important power for tourism. Especially the region is behind the country average at foreign tourist overnight accommodation. The average of bed number per facilities is 50 in the region and it's 100 in Turkey, therefore it means that the region has tourism

facilities with lower capacity. But, more than increasing the quantity, it's preferable to increase the quality of the facilities first.

Over the years, at accrual and collected tax amounts, there is an increase in the region as in the country. But, collected/accrual tax ratio has decreased over the years both in the region and the country. The percentage of the region is 6 percent lower than the country's. The ratio of the region's cities is similar and it's 80 percent. The region's collected tax amounts are about 1 percent of the country's. The half of the banks in the region is in Samsun. The region gives more credit than it takes credits; therefore it means that some deposits of other regions are used as credits in this region.

As the export and import amounts are increased over the years; because of the economic crisis of 2008, 2009 numbers are decreased. Samsun covers 70 percent of export and 85 percent of import of TR83. Çorum follows Samsun. At foreign trade, TR83 has nearly 1 percent of the country's foreign trade amounts. The region has 446 million dollars of export and 574 million dollars of import. The region exports 85 group of products to 130 countries, imports 80 group of products from 80 countries. The region's main export destinations are Egypt, Germany, Iraq, Indonesia and Italy. The region mostly imports from Russia, Canada, Germany, US and China. Especially Russia has an important ratio of the whole as 40% of the imports. When the port of Samsun will be used more effective, the foreign trade is expected to be increased.

ENTREPRENEURSHIP AND INNOVATION / PUBLIC SECTOR INVESTMENTS, INVESTMENT INCENTIVES

To determine the entrepreneurship of the region, the number of established and closed firms is used. Until 2008, the opened firms are more, but in 2008 with the economic crisis, the contrary happens. Therefore, if we don't count 2008, it can be told that it's a positive thing for the region's entrepreneurship.

For innovation indicators, brands, patents, useful models and industrial designs are used. The region's numbers are very few compared to country's and the ratio is about 1 percent but in recent years, there is a tendency of increase. Approximately half of the innovation indicators are from Samsun and Çorum follows it.

Between 2000 and 2009, the region has 2-4% of country's public sector investment amounts. The region's amounts have increased over the years except after the years of the crisis, 2001 and 2008. The biggest sector among public sector investments in this region is transportation and communication. Education, energy, health sectors follow them. Samsun gets 70% of the share in TR83.

Among investment incentive amounts among sectors, on forefront, Amasya has nutrition and alcohol; Çorum has textile and clothing, energy; Samsun has health and vehicles; Tokat has energy.

Livability, Accessibility and Spatial Organization

In this chapter quality of life, conditions of physical infrastructure elements and transport network of the region and spatial relations and spatial development pattern as a consequence thereof will be explained very briefly here.

To begin with, TR83 region is quite rich in terms of water resources as a result of region's geographical position, situated between two important rivers of the country. Region's annual average water potential is 15.000 hm³/year, which makes 7 percent of the whole country. On the other hand groundwater capacity of the region is 795 hm³/year, which is 5.81 percent of Turkey. In such a structure it is concluded that water provision is relatively good in region compared to most of the other regions. Rate of all population which does not have a problem in water provision to municipal populations is among 100% in the Middle Black Sea Region. This picture is quite the same in rural part of the region. Almost 100% of the population has a sufficient water provision.

Nevertheless, sewerage system both in rural and urban areas has certain problems. Especially in rural parts there are serious infrastructure problems. Among 195 municipalities 133 of them have sewerage infrastructure and only 5 municipalities among all have waste water treatment utilities. In that aspect, the region has a lot to do.

Being located between Yeşilırmak and Kızılırmak basins, the region has a great potential of hydroelectric energy. Surveys carried out by government institutions say that there are 19 hydroelectric power plant projects, which will at the end create a potential of 7040 GWh per year. That is almost 6% of all hydroelectric electric energy of country.

However, at the current situation total electricity production amount is 1756 MW in the thermal and hydroelectric energy power plants. Most of the distribution lines in the region are medium and low voltage lines and most of the medium voltage lines are aerial lines even inside the cities. While power lines in the region should be

formed according to a master plan, current electricity distribution system infrastructure has been created with the application of short term plans. This infrastructure, results in visual pollution in the cities, energy cuts and increases in loss-leakage ratios.

TR83 Region, thanks to having an asset such as Samsun Port, has turned into a transfer point for Russian natural gas. The most significant element that meets natural gas demand in the region is Blue Stream Natural Gas Pipeline which passes through the region. Blue Stream Pipeline, which enters Turkey from Samsun and arrives in Ankara through Amasya, Çorum and Kırıkkale, has been active since 2003. Although all the provinces in the region are provided with natural gas, coal consumption rate is not at desired levels especially in residential areas. Especially for that, coal is preferable to natural gas; air pollution problem can sometimes reach critical levels in the region. This situation leads to a decrease in quality of life.

Accessibility and transportation draws attention as one of region's most potent aspects. Owing to its location in the Black Sea Basin and east-west corridor of Turkey, the region is in a powerful position in terms of accessibility. Besides, the logistic potential and importance of Samsun in particular is the factor that will move forward the region from its current position with a right planning approach.

Regional transportation diagram is important with regards to its pointing out the functional relation between residential units and a connection with development corridors at the same time. Regional highway road volumes put forward this structure as well.

The existence of a density from Samsun, the most significant manufacturing and service center of the region, towards Amasya, Çorum and then Ankara, is important

in terms of the relation mentioned above. The intersection of four different means of transportation in Samsun is another factor that puts forward the value of the region in terms of accessibility and transportation. Although Samsun Port, Tekkeköy Shipyard and Port, Yeşilyurt Port and Samsun Port of Toros Agri Industry are major trade points, the inadequacy of field especially for container transport is a crucial defect. It is important to increase the capacities by technologic renovation and modernization projects and strengthen the international linkages of these ports as well. Therefore, Samsun-Kavkaz railway ferry transport and TRACECA Program are among the critical projects for regional logistics.

When development processes of the cities in TR83 Region are examined, the decisiveness of geographical conditions seems to be the most influential factor historically. The mountains parallel to the Black Sea, two important rivers passing through the region and the basins, plains, valleys formed by these mountains and rivers have been influential in the formation of settlement pattern of the region. There are five levels of settlement in the region in terms of the settlement hierarchy. Samsun, the metropolis of the region, is the sole “level five” center in the region. With regard to its functions, Samsun is in the position of regional center and thanks to its ports it has become the region’s gateway to the world. Amasya, Çorum, Tokat city centers, Merzifon and Bafra district centers are level four centers. On the other hand, the other district centers are level three centers. Main factors that affect the development processes of the cities in TR83 are the facts that,

1. The city, from its position of controlling and marketing the agricultural surplus and serving rural areas, has become an attraction center for the

population in its periphery and as a result of population growth services sector has improved.

2. Investment decisions which are generally taken outside the region and provide employment for large population groups have major impact on the development of some cities in the region.
3. The relative importance the cities on the transport axis has changed due to
 - a change in the relative importance of the current transport axis or
 - a new transportation axis passing around.

With regard to spatial structure and sectoral relations, the relations among certain development corridors come to the fore. First, a concentration of manufacturing industry can be seen on the corridor that thrived along Samsun-Ankara highway including Sungurlu and on the development axis that includes Bafra and Çarşamba. The region that can be described as the culture and tourism line is the area containing Amasya, Alaca, Boğazkale and Ladik-Vezirköprü-Sulusaray-Taşova axis. Finally, a concentration of agriculture and agro-based industry can be said to exist on a line which starts from Osmaniye, continues as far as Tokat and includes Taşova, Erbaa and Niksar in the North.

ENVIRONMENT AND CONSERVATION AREAS

When the environment's natural structure is deteriorated, people and other living beings are negatively affected. Industrial facilities pollute air and water if they don't have the purification facilities.

Yeşilırmak River mostly has Class I and II water classes where I stands for the cleanest and IV is the dirtiest water type, but at facilities' campaign period, the river gets more polluted. Kızılırmak River also has Class I and II water mainly, but at middle and upper parts of the river, there is more pollution. Because the flow of the basins is high, the pollution doesn't stay much on the rivers. At Samsun's seaside, certain analysis has been carried out and as the result is approved that a large proportion of the coastline is available to swim. On the other side the most important reason of the air pollution seen in this region is low quality (high sulphur) coal burning for residential heating where the air pollution indicators are SO₂ (sulphur dioxide) and PM10 (particulate matter). There is no important air pollution problem in this region. According to "Air Quality Evaluation and Management Regulations", there are some pollution limits and each year, this limit comes down. When we look at the lowest limit at 2013, only Çorum has to lower its PM10 amounts just a bit.

Erosion stands as the biggest environmental problem in the region. Yeşilırmak and Kızılırmak Rivers carry the most amount of soil after Fırat River. Especially the forest destruction and farming at high incline soils increase the probability of erosion. When we look at solid waste amount collected, the region is behind the average of Turkey (all 4 cities); therefore the municipalities must give importance to these types of facilities. The regular storage of solid wastes is 1/2 at Turkey but in

this region, even in Samsun, this ratio is 1/3. Irregular storing of solid wastes at municipalities' garbage dump gives rise to soil contamination by ground and surface waters, odor problem, increasing of insects as well as fire and explosions as a consequence of compressing of methane gas.

Instead of leaving animal waste as a consequence of animal husbandry to under and above ground water, if it can be used as fertilizer or combustible, the quantity of nitrogen and phosphorus in the water will decrease and also contribute to the economy.

Besides, in industry, the lowest waste production or its transformation directly to raw material will decrease the pollution. The region has no problem at sewerage system service at the context of waste waters. The municipality population who is given the purification facility service is 1/2 at Turkey but in this region, this ratio is 1/5.

In terms of conservation areas, determined by national and international contracts, Middle Black Sea Region is rich of flora and fauna. The most important ones in the region are Yedikır Dam, Gökoluk and Kapaklı Recreation Spots in Amasya; Çatak Nature Park, Boğazköy - Alacahöyük Historical National Park and Eymir Lake in Çorum; Bafra Bird Sanctuary, Terme Gölardı Simenlik Wildlife Protection Area and Hacıosman Forest Nature Protection Area in Samsun; Almus Dam, Kaz and Zinav Lake, Niksar Çamiçi and Reşadiye Zinav Lake Resting Place in Tokat. Even if there is no grave problem in TR83 region about environmental problems, there are some issues that can be improved. Sewer wastes released at watery fields without purification are a danger for aquatic organisms. The illegal hunting, overgraze, uncontrolled cutting of sedges at protection areas should be decreased. Gravel

extraction from water edge is a danger for fishes because they generally pick these places for laying. Gathering sedges as combustible destroys water birds' nests.