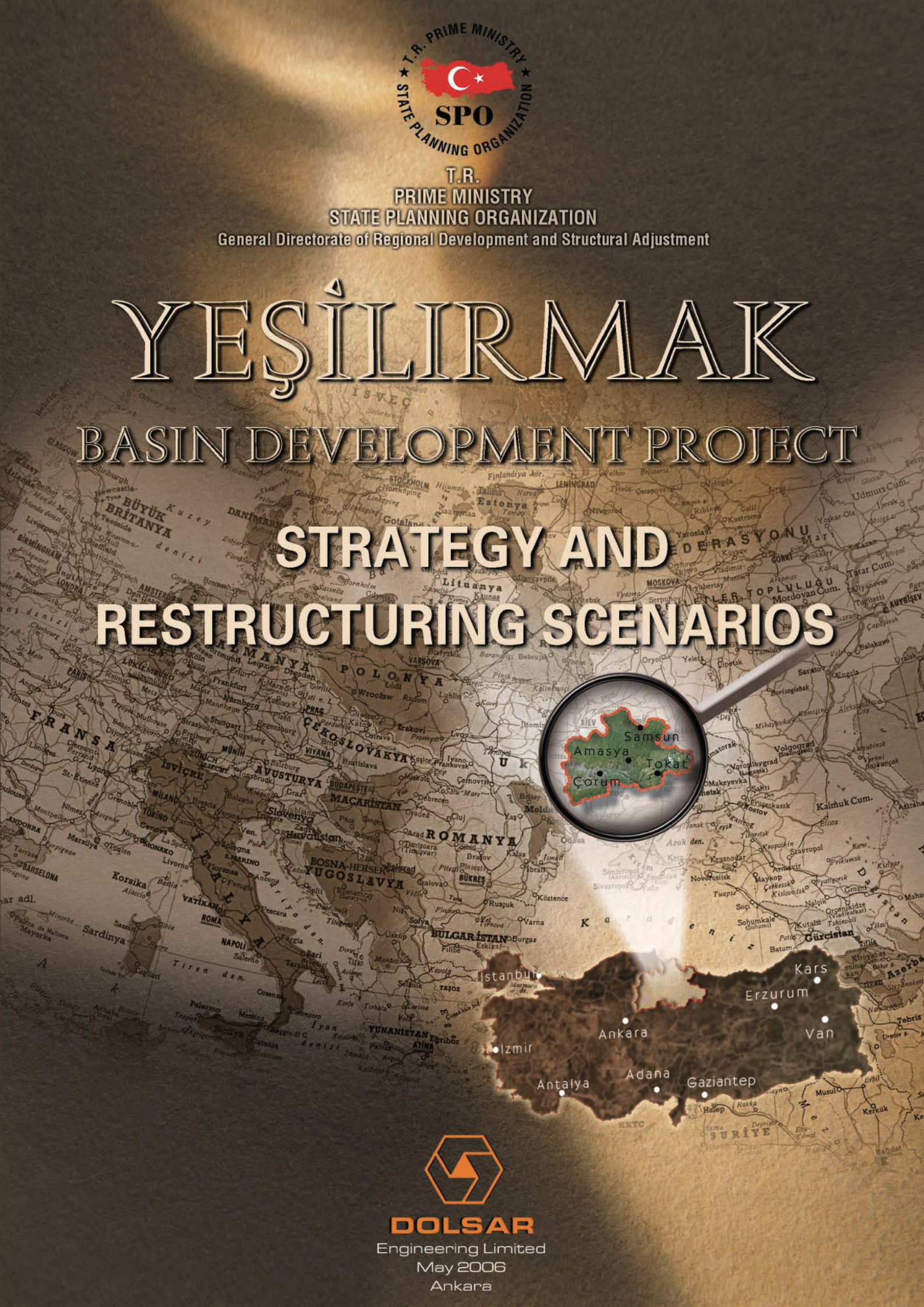
T.R.
PRIME MINISTRY
STATE PLANNING ORGANIZATION
General Directorate of Regional Development and Structural Adjustment

YEŞİLIRMAK

BASIN DEVELOPMENT PROJECT

STRATEGY AND RESTRUCTURING SCENARIOS



DOLSAR
Engineering Limited
May 2006
Ankara

T. R.
PRIME MINISTRY
STATE PLANNING ORGANIZATION
General Directorate of Regional Development and Structural Adjustment

YEŞİLIRMAK BASIN DEVELOPMENT PROJECT

(AMASYA, ÇORUM, SAMSUN, TOKAT)

STRATEGY
AND
RESTRUCTURING SCENARIOS

"An environmentally sensitive, competitive, rapidly developing region, which has become Turkey's gateway to the Black Sea and which has raised its quality of life"

DOLSAR
Engineering Limited
May 2006
Ankara

YEŞİLIRMAK BASIN DEVELOPMENT PROJECT

Published: Ankara, 2006

DOLSAR

MEMBERS OF ACCEPTANCE COMMITTEE, GUIDANCE AND EVALUATION COMMITTEE OF THE YEŞİLIRMAK BASIN DEVELOPMENT PROJECT AND CONTRIBUTORS FROM STATE PLANNING ORGANIZATION*

ACCEPTANCE COMMITTEE

Ahmet YAMAN	General Director of Regional Development and Structural Adjustment
Cevdet YILMAZ	General Director of Relations with EU
Mehmet ÇIRAK	Head of Monitoring and Evaluation Department
Ömer BİLEN	Head of Monitoring and Evaluation Department
Dr. Cahit BAĞCI	Undersecretariat Advisor

MEMBERS OF GUIDANCE AND EVALUATION COMMITTEE (CONTROL ORGANIZATION)

Cemalettin KAYMAK	Head of Priority Regions for Development Department
Nevin SORGUÇ	Head of Regional Development Department
Deniz AKKAHVE	Head of EU Regional Development Programs Department
Cumhur BOZ	Head of State Economic Enterprises and Social Security Department
Ayşenur GÖNÜL	Head of Financial Markets Department
Ahmet ÇELENKOĞLU	Head of Economic Evaluation Department
Aziz BABACAN	Head of Agriculture Department
Mehmet TARAKÇIOĞLU	Head of Agriculture Department
Murat Ş. YAZAN	Head of Agriculture Department
Abdüllatif TUNA	Head of Department of Industry
Hülya TOKGÖZ	Head of Infrastructure and Services Department
Yılmaz ILGIN	Head of Project, Investment Analysis and Evaluation Department
İlyas ÇELİKOĞLU	Head of Social Policies Department
Yılmaz TUNA	Head of Human Resources Development Department
Sedat ÇETİK	Head of Social Physical Infrastructure Department
Niyazi İLTER	Head of Social Physical Infrastructure Department
Mehmet TEKİN	Head of Social Researches Department
Kamil AYANOĞLU	Head of Social Researches Department

GENERAL DIRECTORATE OF REGIONAL DEVELOPMENT AND STRUCTURAL ADJUSTMENT

Ahmet KINDAP	Planning Expert
Rasim AKPINAR	Planning Expert
Ayşe ÖZÇÖREKÇİ	Contracted Employee
Metin ÖZASLAN	Planning Expert
Hasan ŞANALMIŞ	Assistant Planning Expert
Mehmet Emin ÖZSAN	Assistant Planning Expert
Nuri Barış TARTICI	Assistant Planning Expert
Murat KARA	Assistant Planning Expert
Mesut AKBAŞ	Assistant Planning Expert
Ahmet TAMER	Assistant Planning Expert

** According to their positions during the execution of the project.*

LOCAL PARTICIPATION PROVIDED FOR THE YEŞİLIRMAK BASIN DEVELOPMENT PLAN

ORGANIZATIONS AND ESTABLISHMENTS

Governorates of Amasya, Çorum, Samsun and Tokat,
Yeşilırmak Basin Development Union
Provincial planning directorates of Amasya, Çorum, Samsun and Tokat
Provincial directorate of industry and commerce of Amasya, Çorum, Samsun and Tokat
Provincial agricultural directorates of Amasya, Çorum, Samsun and Tokat
Special provincial administrations of Amasya, Çorum, Samsun and Tokat
Provincial directorates for rural services of Amasya, Çorum, Samsun and Tokat
Provincial directorates of culture and tourism of Amasya, Çorum, Samsun and Tokat
Provincial directorates of health of Amasya, Çorum, Samsun and Tokat
Provincial directorates of national education of Amasya, Çorum, Samsun and Tokat
Provincial directorates of environment and forests of Amasya, Çorum, Samsun and Tokat
Amasya, Çorum, Samsun and Tokat Tax Offices
Provincial directorates of title deeds and cadastre of Amasya, Çorum, Samsun and Tokat
Municipalities of Amasya, Çorum and Tokat, Metropolitan Municipality of Samsun
Municipalities of Amasya – Merzifon, Suluova, Taşova, Çorum-Alaca, Osmancık, Sungurlu, Samsun- Bafra, Çarşamba, Havza, Terme, Tekkeköy, Vezirköprü, Tokat- Erbaa, Niksar, Turhal, Zile
Chambers of commerce and industry of Merzifon, Suluova, Gümüşhacıköy , Taşova, Çorum- Sungurlu, Samsun- Havza, Terme, Çarşamba, Bafra, Tokat- Turhal, Zile, Niksar, Erbaa
Chambers of tradesmen and artisans of Amasya, Çorum, Terme and Taşova
DSİ section directorates of Amasya, Çorum, Samsun and Tokat
Irrigation unions cooperatives of Amasya, Çorum, Samsun and Tokat
Stud cattle breeding unions of Amasya, Çorum, Samsun and Tokat
Amasya Suluova agricultural development directorates
OIZ Directorates of Amasya, Çorum, Samsun, Tokat ve Merzifon, Erbaa, Niksar
SIE Directorates of Amasya, Çorum, Samsun and Tokat
Amasya, İskilip Vocational Education Directorates
Foundations and associations: SAMSİAD, ÇORUMSİAD, TOSİAD
İskilip Public Training Center
Chambers of profession of Amasya, Çorum, Samsun and Tokat (those affiliated with TMMOB, chambers of physicians, chambers of accountants etc.)
Banks in the provinces of Amasya, Çorum, Samsun and Tokat
Financial and intermediary establishments of Amasya, Çorum, Samsun and Tokat
Industrial exploitations in the provinces of Amasya, Çorum, Samsun and Tokat
Samsun Ondokuzmayıs University. Tokat Gaziosmanpaşa University
Central Anatolian Exporters Unions
Samsun Foreign Trade Regional Directorate
Samsun Customs Directorate
Çorum Customs Directorate
VII. Regional Directorate of DSI/Samsun
Karadeniz (Black Sea) Agricultural Research Institute/Samsun
Local media establishments of Amasya, Çorum, Samsun and Tokat

PARTICIPATION PROVIDED BY USING PARTICIPATORY DATA COLLECTION TECHNIQUES

Focused Group Interview (FGI) in the provinces of Amasya, Çorum, Samsun and Tokat

12 “women and families” FGI meetings
Amasya “seasonal female workers” FGI meetings
Çorum “bricks – tiles workers” FGI meetings
Samsun “tobacco workers” FGI meetings
Tokat “construction workers” FGI meetings
14 “poverty” FGI meetings
“Forest Operation Chiefs’” FGI meetings

Meetings

Regional parliament members awareness meetings
Merzifon Industrial Planning and Coordination Meeting
Samsun III. City Congress
Samsun Provincial Development Strategy Meetings (SABEK A.Ş.)
Samsun Special Provincial Strategically Draft Plan Meeting
Irrigation unions and cooperations in Amasya, Çorum and Tokat provinces
Provincial agricultural directorates of Amasya, Çorum, Samsun and Tokat
Provincial food control laboratories Çorum, Samsun and Tokat
Merzifon Stud Cattle Breeders Union
Amasya Yedikır Dam Water Products Production Station
Amasya Regional Forestry Directorate
Forestry head offices of Amasya, Taşova, Çorum, Kargı, İskilip Samsun, Bafra Vezirköprü, Çarşamba, Salıpazarı, Tokat, Almus, Erbaa, Niksar and village headmen under said head offices

Surveys

Survey on Consolidation of Women and Families
Survey on Poverty, Social Security and Labor
Survey on Manufacturing Industry (large scale entrepreneurs, 10+)
Survey on Manufacturing Industry (small scale entrepreneurs, 10-)
Survey on Business
Survey on Transportation
Survey on Ranking of Settlements

SWOT Analysis Meetings

Çarşamba
Niksar
Merzifon
Zile
Osmancık

SCENARIO ANALYSIS MEETINGS

Amasya
Merzifon (with the participation of Gümüşhacıköy, Suluova)
Samsun (with the participation of Tekkeköy)
Bafra (with the participation of Alaçam, Ondokuzmayıs)
Çarşamba (with the participation of Terme, Salıpazarı, Ayvacık)
Çorum (with the participation of Laçin)
Alaca (with the participation of Boğazkale, Ortaköy, Mecitözü)
Osmancık (with the participation of Kargı, İskilip, Oğuzlar, Dodurga)
Sungurlu
Tokat
Turhal (with the participation of Pazar, Zile)
Niksar (with the participation of Erbaa, Almus)

MEETINGS RELATED TO DEBATES ON CURRENT SITUATION ANALYSIS and STRATEGY and RESTRUCTURING SCENARIOS REPORTS

Çorum (with the participation of Amasya, Samsun, Tokat)

MEETINGS RELATED TO DEBATES ON DRAFT MASTER PLAN

Governorate of Amasya
Amasya Municipality
Merzifon Municipality
Taşova Municipality
Governorate of Çorum
Çorum Municipality
Governorate of Samsun
Samsun Metropolitan Municipality
Bafra Municipality
Governorate of Tokat
Tokat Municipality
Erbaa Municipality
Turhal Municipality

DOLSAR ENGINEERING
YEŞİLIRMAK BASIN DEVELOPMENT PROJECT
PROJECT TEAM

M. Sinan AKER	Project Director
Akın ATAUZ	Project Coordinator
Rıfat TÜRKKAN	Deputy Project Coordinator
Doğan PEKÇAĞLIYAN	Deputy Project Coordinator
Şahin BEKİŞOĞLU	Group Manager for Economic Structure
Doç. Dr. Feryal TURAN	Group Manager for Social Structure
Sadettin ZORLUTUNA	Group Manager for Urban and Rural Infrastructure (Infrastructure)
Hüseyin ÇİÇEK	Group Manager for Urban and Rural Infrastructure (Urbanization)
Sevgi ARSLAN	Group Manager for Environment

Sermet ADIGÜZEL
Burhan ARIÖZ
Baki ARSLAN
Hüsamettin ATEŞ
Yalçın Kaya AYDOS
Adil BACAK
Hakan DAMAR
Nihan DERİNÖZ
Ali Osman ERDEM
Bilge Çınar ERTEM
Ümit GİRİŞ
İzzet KARACAGİL
Şükrü KAYA
Ercüment KOYUNCU
Nusret KUTLU
Ali Onur KUYUCAK
Mesut ÖNER
Ertuğrul ÖZBEK
Kağan SOLMAZ
Murat ŞAHİN
Sezin ÜSKENT

Prof. Dr. Cüneyt ELKER
Prof. Dr. Gazi ÖZHAN
Prof. Dr. Fersun PAYKOÇ
Prof. Dr. Gencay ŞAYLAN
Prof. Dr. Hüseyin TATLIDİL
Prof. Dr. Levent TURAN
Doç. Dr. Selim ÇAĞATAY
Doç. Dr. Alper GÜZEL
Doç. Dr. Meral ÖZHAN
Doç. Dr. Turgay ÜNALAN
Doç. Dr. Asuman TÜRKÜN
Dr. Aydın AKBULUT
Dr. Murat BUKET
Dr. Ufuk COŞGUN
Dr. Tayfun PEKÇAĞLIYAN
Dr. İdris TOSUN
Dr. Sarp ÜNER
Melih ARAL
Haşim ALTINÖZLÜ
Nejat DURA
Nilgün PEKÇAĞLIYAN

ADVISORY BOARD
Prof. Dr. Servet MUTLU
Prof. Dr. Ayda ERAYDIN
Prof. Dr. Bahattin AKŞİT
Prof. Dr. Süleyman KODAL
Doç. Dr. Melih PINARCIOĞLU

CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

BPS	Boarding Primary School
BSEC	Organization of The Black Sea Economic Cooperation (Karadeniz Ekonomik İşbirliği Örgütü)
ÇEKÜL	Çevre ve Kültür Değerlerini Araştırma Vakfı (The Foundation for the Promotion and Protection of the Environment and Cultural Heritage)
CIS	Commonwealth of Independent States
COP	Census of Population
CRS	Central Rural Settlements
CSA	Current Situation Analysis
DA	Development Agency
DİE[1]	Devlet İstatistik Enstitüsü (State Institute of Statistics)
DL	Decree Having the Force of Law
DPT	Devlet Planlama Teşkilatı Müsteşarlığı (State Planning Organization)
DSİ	Devlet Su İşleri Genel Müdürlüğü (General Directorate of State Hydraulic Works)
EU	European Union
EUREPGAP	Best Agricultural Practices Standard
FYDP	Five Year Development Plan
GAC	General Agricultural Counting
GAP	Güneydoğu Anadolu Projesi (Southeastern Anatolia Project)
GATT	Customs Tariffs and Trade General Agreement
GDP	Gross Domestic Product
GNP	Gross National Product
HS	High School
ILO	International Labor Organization
IMKB	İstanbul Menkul Kıymetler Borsası (Istanbul Stock Exchange)
ISIC	International Standard of Industrial Classification
KAF	Kuzey Anadolu Fayı (North Anatolia Fault)
KGM	Karayolları Genel Müdürlüğü (General Directorate of Highways)
KHGM	Köy Hizmetleri Genel Müdürlüğü (General Directorate for Rural Affairs)
KOSGEB	Küçük ve Orta Ölçekli Sanayi Geliştirme ve Destekleme İdaresi Başkanlığı (Small and Medium Industry Development and Support Agency)
LA21	Local Agenda 21
LED	Local Economic Development
M&E	Monitoring and Evaluation
MAK	Merkez Av Komisyonu (Central Hunting Commission)
MTA	Maden Tetkik ve Arama Genel Müdürlüğü (General Directorate for Mineral Research and Exploration)
MTP	Medium Term Plan
NGO	Non-Governmental Organizations
NUTS	Nomenclature of Territorial Units for Statistics
OGM	Orman Genel Müdürlüğü (General Directorate for Forests)
OIZ	Organized Industrial Zone
ORKÖY	Orman Köy İlişkileri Genel Müdürlüğü (General Directorate for Forestry and Rural Affairs)
PNDP	Preliminary National Development Plan
R & D	Research and Development
RBPS	Regional Boarding Primary School
SABEK	Samsun Bölgesel Ekonomik Kalkınma Anonim Şirketi (Samsun Regional Economic Development Joint-Stock Company)

1 By Law 5429, the State Institute of Statistics (DİE) was renamed the Turkish Institution of Statistics (TÜİK). However, considering the dates of publication of the data sources used, reference is made to the State Institute of Statistics.

Abbreviations

SABEKAK	Samsun Bölgesel Ekonomik Kalkınma Konseyi (Samsun Regional Economic Development Council)
SIE	Small Industrial Estates
SME	Small and Medium Scale Enterprises
SO_2	Sulfur Dioxide
SPA	Special Provincial Administration
SWOT	Strengths, Weaknesses, Opportunities, Threats
TCDD	Türkiye Cumhuriyeti Devlet Demiryolları İşletmesi (Turkish State Railways)
TEDGM	Teşkilatlanma ve Destekleme Genel Müdürlüğü (General Directorate for Organization and Support Services)
TEKMER	Teknoloji Merkezi (Technology Center)
TESK	Türkiye Esnaf ve Sanatkarları Konfederasyonu (The Confederation of Turkish Tradesmen and Craftsmen)
TIR	Transportation International Route
TKİB	Tarım ve Köyişleri Bakanlığı (Ministry of Agriculture and Rural Affairs)
TMMOB	Türkiye Mühendis ve Mimar Odaları Birliği (Union of Chambers of Turkish Engineers and Architects)
TOBB	Türkiye Odalar ve Borsalar Birliği (Union of Chambers and Commodity Exchanges of Turkey)
TÜBİTAK	Türkiye Bilimsel ve Teknik Araştırma Kurumu (The Scientific and Technological Research Council of Turkey)
TÜİK	Türkiye İstatistik Kurumu (Turkish Statistical Institute)
USA	United States of America
VAS	Vocational Advanced School
WTO	World Tourism Organization
WTO	World Trade Organization
YBDP	Yeşilırmak Basin Development Project
YHKB	Yeşilırmak Havzası Kalkınma Birliği (Yeşilırmak Basin Development Union)
YÖK	Yüksek Öğretim Kurulu (Higher Education Council)
YTL	New Turkish Lira

1 INTRODUCTION

The Current Situation and Analysis Report has made an analysis of Region TR83 (Provinces of Amasya, Çorum, Samsun and Tokat), with findings thereof having been presented. This report titled "Strategy and Restructuring Scenarios" defines possible scenarios and strategies that may be followed for the development of the region. This report has been prepared in two sections. The first portion defines the possible scenarios of development; a strategy has been identified after selection of a scenario by the DPT.

The "Strategy and Restructuring Scenarios Report" consists of six parts. **Part One** explains the structure and process of the report. Figure 1.1.1.1 outlines the composition of the report.

Part Two starts with a brief summary of the analysis of the present situation. This part presents the local power, problems, opportunities and priorities that have emerged at the meetings held in the region in the framework of SWOT analysis. Part 2.2 provides the regional development potential, dynamics, and developmental aspects which are interpreted according to these analyses.

Part Three assesses this potential arising out of the region's internal dynamics in terms of the developments affecting Turkey and the region. The objective of this assessment is to consider the developments in the world while determining the scenarios and formulating development strategies for the region.

Basic documents such as the Eighth Five Year Development Plan and Preliminary National Development Plan and Medium Term Program, which determine the vision and targets of the national development, and the issues gaining priority in the YBDP Technical Specifications have been duly considered because they are the very elements affecting the regional plan.

Part Four contains the restructuring scenarios. In the process of preparing the scenarios, alternative approaches have been adopted in the preparation of the development projections defining the region's desired and attainable future. The developments related to the economic and social sectors have been assessed on a regional basis in the development of the alternative scenarios, as an emphasis has been placed on the distinctive features of the different alternatives. Under this scope, forecasts have been devised for each alternative regarding net migration, income and employment levels and their breakdown by sector, urbanization and this urban population's settlements of different sizes and inter-regional distribution thereof.

The strategy determination studies have been initiated. Scenario A_2 has been selected by the DPT from among the four alternative scenarios and the strategy study has been revised in a format and contents approved by the DPT, as developments were registered in line with the objective of determining the basic strategic purposes, priorities and measures which would ensure the development of the region towards the social, economic and spatial structure envisaged for 2003.

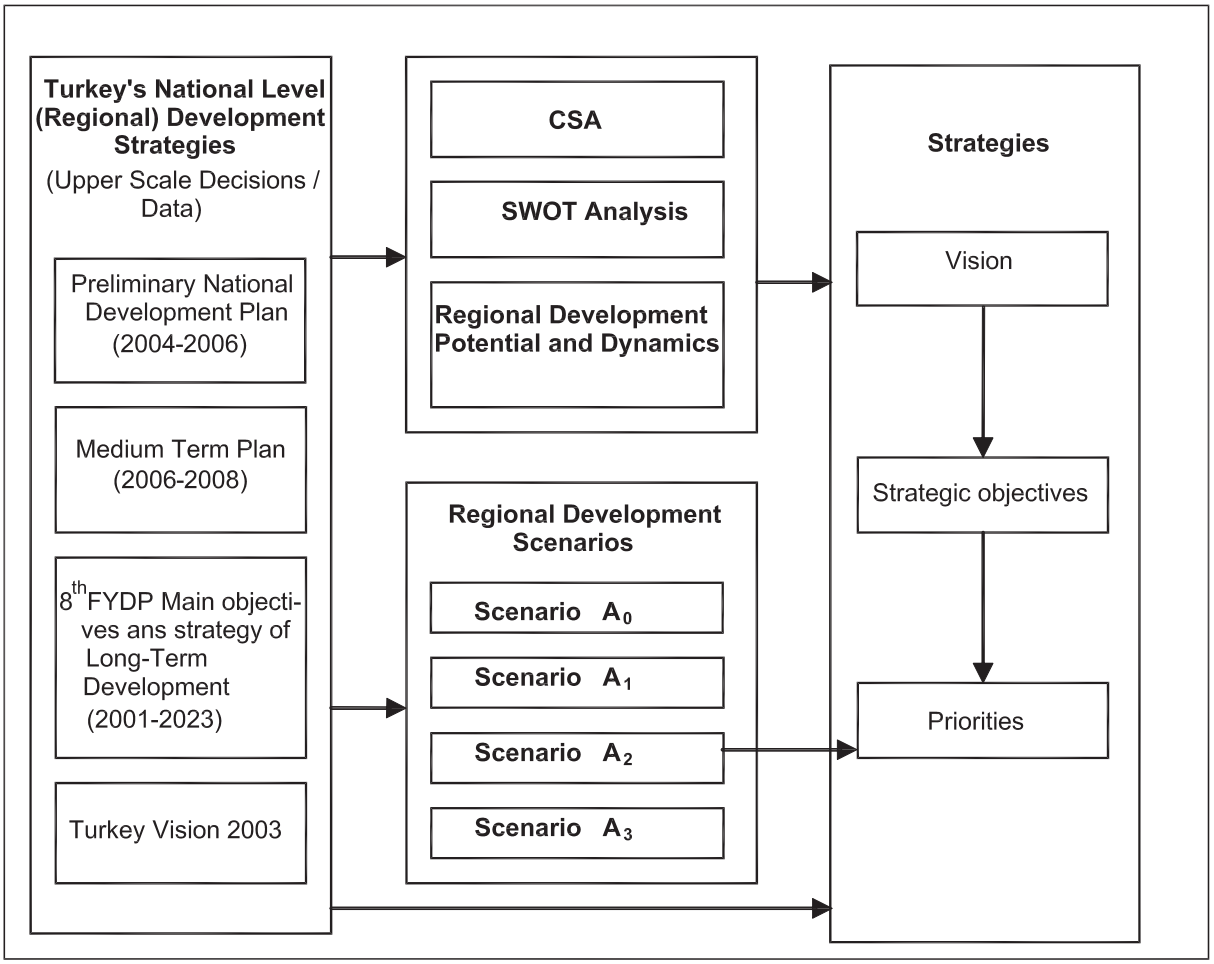
Part Five of the Report contains the regional development strategies. **In order to determine the region strategy**, Turkey's National Level (Regional) Development Strategies - Preliminary National Development Plan (2004 – 2006), Medium Term Program (2006 – 2008), 8th FYDP Long Term Development Basic Instruments and Strategy (2001-2023) and Turkey Vision 2023 have been considered the upper scale decisions/ data. The strategy is compatible with the upper scale decisions and the current situation is in line with SWOT analyses and restructuring scenarios.

In determining the strategic objectives, the regional development scenario and vision as well as the current situation analysis (including SWOT analyses) have been used as basic inputs.

Part Six contains an overall assessment. The section forms a synthesis; at the same time, it pro-

vides concise information about certain aspects that will be taken as the basis for the “Master Plan” to be prepared at the next stage.

Figure 1.1.1.1 Basic Structure of the Strategy and Restructuring Scenarios Report



2 CURRENT SITUATION AND DEVELOPMENTS

2.1 GENERAL STRUCTURE AND DEVELOPMENTS

Region TR83 accounts for 5 percent of Turkey's total land area with its land area of 37 600 km² and accommodates 4,42 percent of the nationwide population as of 2000. In the last 20 years, the region has given out three fourths of the natural population increase to other areas through migration, but a minor portion of it could be retained inside the zone. As a result, the total regional population, which was 2 545 739 in 1980, reached 2 999 460 in 2000. All four provinces in the region have the status of development priority provinces. However, Samsun with a per capita income of more than 1 500 US dollars are excluded from Incentives Law No 5084.

The regional economy registered growth at a rate lower than the nationwide average between 1987–2000 (3,06 percent versus 3,63 percent). However, because the region gives out migration externally, the per capita income increase has realized slightly higher than the Turkish average. As a result, the per capita difference between the region and Turkey has decreased over time; although the ratio of the region's average income to the nationwide average, which was 0,655 in 1987, was 0,725 in 2000, the contribution by the region's GDP to the national economy declined from 3.46 to 3,17 in 2001 (Dolsar, 2004-1).

Inadequate industrialization is the fundamental reason for the region's relative weak development. The content by the manufacturing industry in GDP, which was 24,1 in 2000, is 18,1 for the region. A significant portion of the present added value by the manufacturing industry stems from several public sector enterprises (such as sugar and tobacco) in the region. The location of three of these factories in Tokat leads to calculation of an extraordinarily high industrialization level in that province. On the other hand, the level of industrialization observed in Çorum known as the region's industrial hub is limited. This inadequacy in industrialization causes the agricultural sector employment to be at extremely high levels and this is reflected in the region's relative state of underdevelopment. The fact that the ratio of the urban population is extremely high leads to calculation of very high ratios of participation in the workforce and working females for the region due to the statistical definition employed.

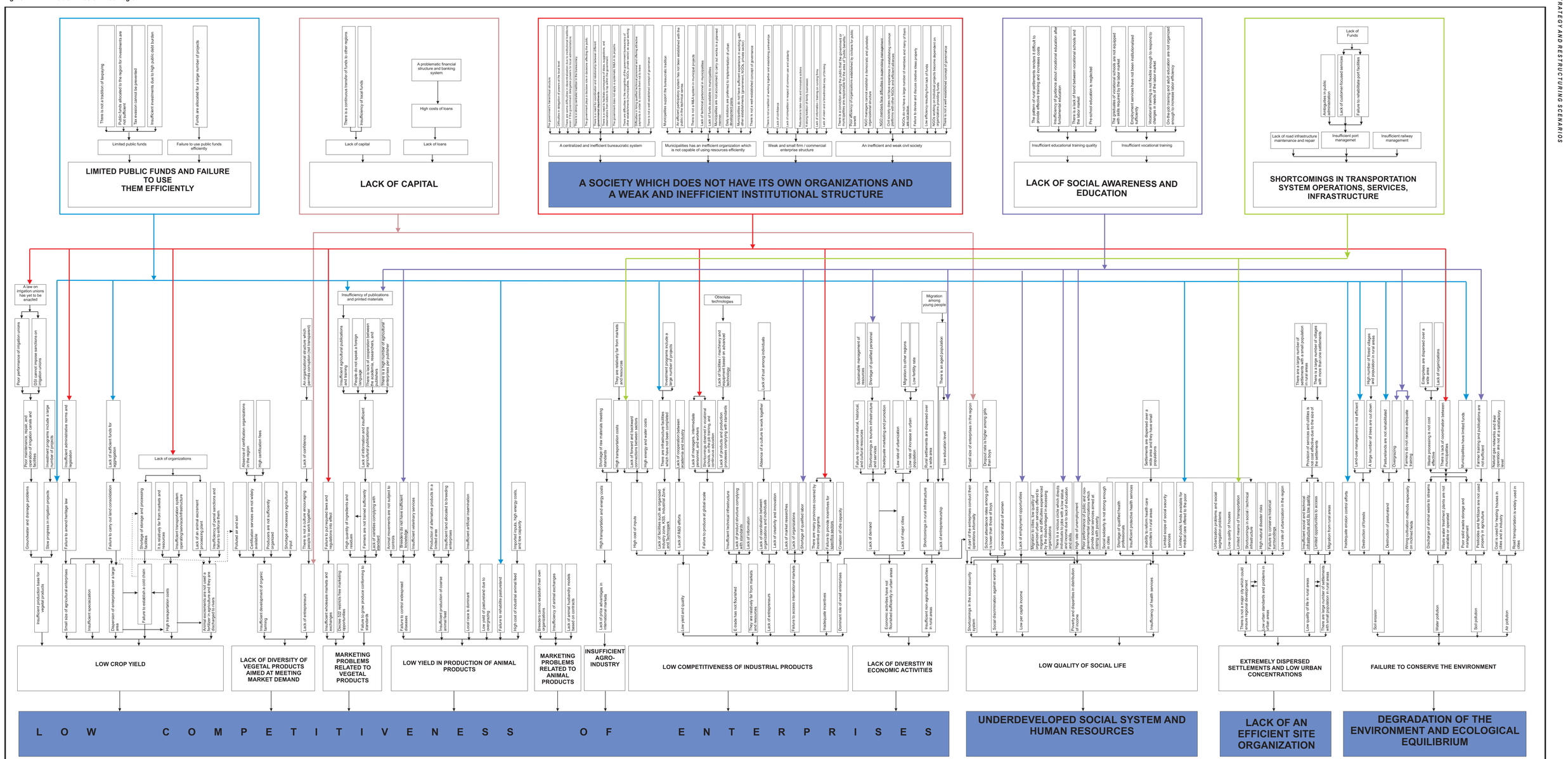
The region is in a better position in terms of social indicators. The rates of literacy and enrollment at various educational levels are near to the Turkish averages. A similar situation also applies for heath and other social development indicators. The intra-regional income distribution is presently better than the Turkish averages. Gini coefficient for 2003 is 0,42 and 0,40 in Turkey and the region, respectively.

The region faces a series of economic, social, environmental and institutional problems preventing it from making any development drives. The factors creating these factors are presented by the Regional Problem Tree, Figure 2.1.1.1.

The underlying factors of the problems in the region are constituted by limited public resources and their inefficient use, capital inadequacy, an unorganized community, institutional structures failing to be adequately effective, lack of communal awareness and education and shortcomings concerning the transport system and infrastructure. They define 5 fundamental areas of problems faced by the region's development. These problems are as follows:

- Enterprises have a low level of competitiveness.
- Human resources and social structure have failed to develop adequately.
- There is no effective spatial organization.
- Environment and ecological balances have deteriorated.

Figure 2.1.1.1 Problem Tree of TR83 Region



- There is an unorganized community and weak and ineffective institutional structure.

Because some of these problems affect one another in a two way direction as causes and results as applicable or horizontally intersecting components are related to many problems, it is not feasible to consider problems and consequences abstractly or separately.

The basic factors for the low competitiveness level of the enterprises may be cited as: low vegetal and animal related efficiency, marketing problems faced by the products, inadequate agro industry, low competitiveness over industrial products and lack of diversification in economic activities. The sub-headings of these problems have many aspects affecting the region individually or in groups.

The communal living standards are considered low and this situation in turn leads to inadequate human resources and social structure development. There are many factors negatively affecting the communal living standards; as some of them affect the communal life individually, some others have impact on the social life conditions in groups.

No effective spatial organization can develop as a result of a widely scattered settlement structure and a low rate of urbanization; living standards cannot be raised to a desired level in the rural and urban settlements consequently.

All these factors adversely affect the living environment, causing deterioration of ecological balances. As a result of the failure to protect the environment adequately, pollution increases and rural and urban living standards decline.

Although some of the problems identified in the region are issues which must be addressed on a national scale, many others are related to and in connection with the region directly. The development of the region can be accelerated upon the elimination of the problems facing the development of the region. Therefore, emphasis will be placed on the efforts for elimination of the region's problems and development of the regional development strategies.

2.1.1 Demographic Structure

The region's total population reached 2 999 460 in 2000 from 1 795 862 in 1960. As the ratio of the regional population to the nationwide population was between 6,3 percent and 6,6 percent during 1927 to 1965, it began declining after 1965, eventually falling down to 4,42 percent in 2000.

The population increase rate registers declines in the region in the recent periods. The nationwide population maintained an annual average population increase of about 25 per thousand between 1960 and 1985 but entered into a steady trend of decline after 1985. In the same period, the regional population increase rate remained below the national averages due to migration. The trend of decline observed in the population increase rate after 1985 is more apparent in the region compared with Turkey. The annual average increase rate declined to as low as 5 per thousand from 15 per thousand.

The highest rate of population increase was observed in Tokat and Samsun at 14,20 per thousand and 9,13 per thousand between 1980 – 2000, respectively (Table 2.1.1.1). These rates are prominently higher than the increase rates of other two provinces in the region. The Province of Samsun is followed by Amasya at 3,40 per thousand. The lowest rate was registered in the Province of Çorum at 2,16 per thousand. The regional annual average population increase rate is a trend of decline similar to the nationwide average but at a much higher speed. The region's natural increase rate decreases parallel to the nationwide average. The fact that the population increase rate

is in decline at a higher rate than the national average is explained by the migration from the region.

An analysis of the migration rates based on the results of the census indicates that the region has steadily given out net migration after 1970 and that the ratio of the out-migration to the period end population reached its peak in the period between 1985–1990. The out-migration is largely (at a rate of 70 percent) towards the cities in other provinces apart from the cities in the region. The outward migration life-long rate is highest in the Province of Çorum and lowest in the Province of Samsun. The ratio of migration from the regional villages to cities in another province is about 20 percent and these ratios are very low compared with inter-city migration. Migration between villages in the four provinces in the region is at a negligible level (7 to 10 percent). These findings point to the fact that migration is graded, suggesting that once employment creating measures are in place, it would be possible to retain migration within the urban settlements in the region.

The level of urbanization in the region is lower than the nationwide average. Excluding the rural population of the Province of Tokat having a high fertility rate (3,06), the rural population had had an absolute decrease in all the regional provinces and in the entire region. Both the provincial and district centers according to the administrative definition and the rate of urbanization according to the administrative definition by which any settlements with a population of more than 20 000 are recognized as cities, the rate of urbanization is 51,5 percent in the region whereas this is 64,9 percent on a nationwide basis. Amasya was the province with the highest rate of urbanization (53,8 percent) in the region in 2000 while Tokat was the province with the lowest rate (48,5 percent) and the urbanization level is not much variant according to the provinces.

The average household size in the region is 4,97. This value is above the nationwide average for 2000, which is 4,50. Tokat is the province making the greatest contribution to the increase in the region's average household size, with a household size of 5,79. The developments observed in the household size in the period of last 20 years reflect the impact of the demographic changes. The average household size decreases parallel to the national trends in the region.

The indicators of urbanization and the decrease declines in the household size display certain similarities for the region's provinces. Tokat is the province having the slowest rate of urbanization. The Province of Çorum displays a development in line with the demographic change trend throughout the period. It has rapidly moved away from its position as the province with the least urbanization, with its household size having fallen below the regional and nationwide averages. The region displays progress towards a position close to the nationwide averages in terms of the demographic

Table 2.1.1.1 Annual Average Population Increase Rates and Rates of Urbanization According to the Administrative Definition of Cities

	Average annual population growth (per mille)				Urbanization rate (percent)			
	1980-1985	1985-1990	1980-2000	1990-2000	1980	1985	1990	2000
Amasya	9,77	0,54	3,40	1,65	37,5	41,5	45,5	53,8
Çorum	9,40	3,14	2,16	-1,92	29,3	33,4	41,6	52,2
Samsun	19,21	9,30	9,13	4,05	34,2	36,9	45,3	52,5
Tokat	16,89	11,42	14,20	14,26	32,1	36,2	42,9	48,5
TR83	15,21	7,37	8,23	5,20	33,0	36,6	43,9	51,5
Turkey	25,20	21,95	21,01	18,45	43,9	53,0	59,0	64,9

*Source: *DİE (2002-3), DİE (2002-4), DİE (2002-5), DİE (2002-6), DİE (2003-1).*

indicators. However, it is observed that the level of urbanization is below the nationwide average. This situation applies for every province in the region.

A decline was experienced in **the region's fertility rate** between 1980 and 1985 and in the last 15 years, it has almost remained fixed. According to the results of the 2000 Census, the region's fertility rate (2,65) is marginally higher than the nationwide average. Tokat is the province with the highest rate of fertility (3,06) as the lowest rate (2,34) is in Amasya, which has a rate below the nationwide average.

Thanks to the impact of the demographic developments observed in the **pyramid of age brackets**, according to 2000 data, the population rate of the age bracket of 0 to 14 declines as there is an increase in the age bracket of 15 to 64 (62,89 percent) and more than 65 (6,88 percent). The region's population of work age and aged population increased as is the case for the nationwide situation.

It is seen that the **infant mortality rate** was quite close to the nationwide average in 2000. The infant mortality rate, which was about 200 per thousand in the 1970s, decreased to about 48 per thousand in 2000. The decline in the child mortality rates was faster. This rate, which was 90 per thousand in 1970, declined to 9 per thousand in 2000. As a result of the rapid improvement in both indicators, the region has caught up with the nationwide averages.

In respect to life expectancy at birth, it is seen that the region registered a positive development as much as the one on a national scale between 1975 and 1997. Although the average life expectancy had an increase of 10 years in Turkey during this period, it was in the range of 8 to 8,5 years in Region TR83. When females and males are compared in terms of life expectancy at birth, it is observed that, as is the case in the world, the life expectancy for females was longer compared with the one for males in the region. The values related to the population structure and direction of development indicate that the region is close to the nationwide averages, having progressed in line with the national trends.

2.1.2 Economic Structure

The share by the agricultural sector in GDP is above the nationwide average in every province of the region. According to 2001 values, the share by the agricultural sector product in the region's provinces, particularly Amasya, is almost twice of the nationwide average.

The domination of the agricultural sector is more apparent in employment. The agriculture recommended by ILO is the underlying reason for this high agricultural sector employment data. According to this definition, anyone having no other job and performing one hour of agricultural work in the last two weeks is considered part of agricultural employment. Due to this definition, almost all of that portion of the female population, who is of work

Table 2.1.2.1 Region's GDP by sector on the basis of provinces and Rankings of Provinces for Development, 2001

	Sector	Amasya	Çorum	Samsun	Tokat	Region	Turkey
Percentage distribution	Agriculture	21,7	19,9	20,4	18,5	20,0	12,1
	Industry	7,7	10,6	15,2	39,6	19,4	25,7
	Services	70,5	69,6	64,4	41,9	60,6	62,2
	GDP (percent)	100,0	100,0	100,0	100,0	100,0	100,0
GDP per capita* (YTL)		1 288	1 431	1 452	1 107	1 335	1 847
Development ranking among 81 provinces (2000)		39	46	32	61	18	

** Population for 2000*
Source: DPT (2003-2), DİE (2004-4).

age, is seen as agricultural employees.

The growth analyses conducted between 1987 and 2001 indicate that the growth rate of the agricultural sector is close to the nationwide average and that the growth rates of other sectors are slightly below the nationwide averages (Table 2.1.2.3).

The share by the region's industrial sector rose from 15,7 percent in 1987 to 19,4 percent in 2001 and in the same period, the share by the industrial sector on a nationwide basis totaled 25,8 percent and 25,7 percent, respectively (Dolsar, 2004-1). The growth rate of the industrial sector realized at 2,72 percent and 3,5 percent in the region and country between 1987 – 2001, respectively and the region lagged behind the nationwide average in terms of industrialization. According to 2000 data, 6,3 percent of the employees in the region was employed by the industrial sector; this value realized at 12,3 percent on a nationwide basis (Dolsar, 2004-1). Per capita industrial production added value realized at YTL 111,1 in the region in 2000 and this value is about one third of the nationwide average of YTL 350 for that year. Per capita electricity consumption totaled 224,6 kWh, which is almost half of the national consumption of 550 kWh (Dolsar, 2004-1).

Industrial growth concentrates in Tokat and Çorum as services concentrate in Samsun. Although the industrial growth in the province of Tokat stems from excessive public investment, the growth realized in Çorum is due to private sector investment. Despite this growth by the industrial sector, the region's industrialization has lagged behind the nationwide average.

The share by the services sector in the region was 60,6 percent in 2001 as it was 62,2 percent on a nationwide basis; the share by this sector in employment realized at 26,82 percent as it realized at 38,2 percent on a nationwide basis. The provinces where the services sector has had highest development are: Amasya, Çorum and Samsun in terms of their respective rankings. The province of Tokat has the lowest ranking in this respect.

The field surveys conducted in the region indicate that significant drives have been made in the agricultural sector in the recent years. These developments have not yet reflected in the national income figures (because the data cover the period up to 2001). However, it is observed that major developments have been experienced in the last five years.

2.1.2.1 Agriculture

The agricultural sector accounts for 20 percent of the gross regional product. The share by this sector in employment was 67 percent in 2000. The revenues of the agricultural sector largely stem from vegetal production. The share by animal husbandry in the agricultural sector is about 25 percent. The share by aqua products and forestry is smaller (1 percent). The growth rate of the ag-

Table 2.1.2.2 Breakdown by Sector of Employment in Region TR83

	Male	Female	Total	Region (percent)	Turkey (percent)
Agriculture	364 038	471 307	835 345	66,9	48,4
Industry	68 076	10 460	78 536	6,3	12,6
Services	290 870	43 993	334 863	26,8	38,2
Total	722 984	525 760	1 248 744	100,0	100,0

Source: DİE (2002-3), DİE (2002-4), DİE (2002-5), DİE (2002-6)

Table 2.1.2.3 Growth rates by sector, 1987 – 2001

(percent)

	Amasya	Çorum	Samsun	Tokat	Region	Turkey
Agriculture	-0,16	-0,87	0,60	2,72	0,64	0,82
Industry	-1,56	3,02	1,23	5,22	2,72	3,50
Services	2,57	2,53	2,80	2,44	2,65	3,00
GDP	1,28	1,75	1,96	3,31	2,11	2,79

Source: DİE (1997-3), DİE (2002-2), DİE (2004-1).

ricultural sector realized at 0,64 percent between 1987 – 2001, lagging behind the nationwide average of 0,82. The highest share by the agricultural sector realized in the province of Amasya and this province was followed by Samsun, Çorum and Tokat in their respective order (Table 2.1.2.3). On a district basis, the central districts of Amasya, Merzifon, Samsun Bafra, Çarşamba, Çorum, Tokat, Niksar, Erbaa and Zile had the top rankings in agricultural production and employment as the leading districts.

2.1.2.1.1 Land Resources, Soil Properties and Vegetal Production

A large portion of the region's total land area of about 3,8 million hectares is accounted for by agricultural and forest areas. The pasture areas in the region having rich forests are limited and these areas are concentrated in Çorum and Amasya. Although agricultural land covers about one third of total land resources, one third of arable land is accounted for by economically irrigable land.

The region is also very rich in terms of topography and irrigation opportunities. Of the total land in the region, 11,6 percent is deep or very deep, 15 percent, medium deep, 37,4 percent, shallow and 36.1 percent, very shallow. According to the findings established in connection with the soils in Yeşilırmak Basin, 11,3 percent of soil had no or very little impact from water erosion; 23,7 percent had medium impact; 47 percent, severe impact and 17,3 percent, extremely severe impact; 12,3 percent of the soil in Kızılırmak Basin had no or very little impact from water erosion; 28,7 percent, medium impact; 39,4 percent, severe impact and 16,1 percent, very severe impact.

The region ranks 3rd in production of field crops with about 5 million tons (8,8 percent) among NUTS 2 Levels; it ranks third in production of vegetables with 2 million tons (8,6 percent) and 13th in production of fruits with 312 000 tons (2,2 percent) (Dolsar, 2004-1). The intra-region demand surplus of the agricultural crops, vegetables and fruits produced in the region is marketed outside the region and exports of cherries and tomatoes increase in terms of both quantity and value every year.

45,3 percent (240 655 ha) of the economically irrigable land of 530 875 ha in the region is irrigated (Table 2.1.2.5). The irrigated areas are scattered all over the entire region. The areas of concentrated irrigation are: Tokat centre, Niksar, Erbaa, Amasya center, Çarşamba, Bafra and Suluova (Figure 2.1.2.1). Irrigation is one of the basic determinants of efficiency and product pattern. An analysis of the design of plants in the irrigated areas in the region indicates that poly-culture agriculture is performed. The weight of fruits – vegetables and industrial plants in the product pattern in the irrigated areas is higher than the nationwide average.

A major problem related to irrigation is that a high rate of 44 percent of total land in DSI irrigation project areas is not irrigated for various reasons. Another important issue concerning irrigation is the one related to maintenance and repair. In recent years, a policy is being followed to ensure that those irrigation facilities, the construction of which is completed, be operated by users. The pursuit of this policy, which is logical, has led to new problems because the users have failed to get organized adequately and that the habit of expecting the public sector to take action has persisted. The expected developments cannot be attained over land consolidation due to legal inadequacies.

2.1.2.1.1.1 Land Use

It is seen that there have been changes to the size of agricultural land and number of agricultural enterprises in the region over time. No major change to the size of the agricultural enterprises in the region has taken place despite the decrease in the regional and national agricultural land between 1991 – 2001 (Table 2.1.2.6). The region's agricul-

tural area which was 11,6 million decares in 1991 declined to 10,2 million decares in 2001. However, despite the decrease in agricultural areas, there have been increases in areas for production of vegetables and fruits parallel to the increase of irrigated land.

2.1.2.1.1.2 Agricultural Enterprises

Most of the agricultural enterprises have small land resources. Apart from the fact that the agricultural enterprises are small, another issue is that land is too fragmented. The sizes of the enterprises in the region are close to the nationwide averages. According to GAC results for the region in 2001, the number of the agricultural enterprises having land of 0 to 20 decares was 68 881 (30 percent) as the number of the agricultural enterprises having 0 – 49 decares of land was 158 943, which accounted for 70 percent of the total enterprises. The number of the enterprises having land in excess of 50 decares is 68 484.

The number of the agricultural enterprises, which was 263 894 in 1991, declined to 227 427 in 2001, resulting in a decrease of 16.8 percent. No significant changes have taken place over the sizes of the agricultural enterprises between 1991 and 2001 and the sizes of the agricultural enterprises have been identified as 44,0 and 45,6 percent, respectively. The average number of parcels declined from 5,7 to 4,3 in ten years as the average parcel size rose to 10,5 decares from 7,7 decares. According to this transformation, there were increases in the average enterprise size and parcel size at 4 percent and 37 percent, respectively as the average number of parcels declined by 24 percent. These values are lower than the nationwide averages and the region's agricultural enterprises consist of small enterprises (Table 2.1.2.6).

The number of the agricultural enterprises in the country declined by 944 695 between 1991 – 2001 as the enterprise size rose from 59,1 decares to 61,0 decares and the average number of parcels, which was 5,4, fell to 4,1. In the same period, the average parcel size rose from 10.9 decares to 15,0 decares. As the number of the agricultural enterprises registered declines both in the region and throughout the country, the average enterprise size increased. Although this is a positive indicator, this value is still very low compared to the average agricultural enterprise size in the EU, which is 165 decares; it is about one tenth of the latter.

It is not possible for enterprises having land of less than 50 decares with little or no irrigation means, excluding under plastic cover agriculture and poultry not requiring large land, to generate sufficient income through land.

About three quarters of the enterprises carry out vegetal production and animal husbandry activities together. There are no specialized agricultural

Table 2.1.2.4 Land Resources of Region and Turkey, 2002

Type of land	Region		Turkey
	Area (ha)	Percent	(percent)
Agricultural	1 653 259	43,5	34,4
Pasture	412 296	10,8	26,2
Forest, heathland	1 325 011	34,9	26,4
Other	412 945	10,8	13,0
Total	3 803 511	100,0	100,0

Source: TKİB (2003-1),TKİB (2003-2), TKİB (2003-3), TKİB (2003-4).

Table 2.1.2.5 Breakdown by Irrigated Area of Land Resources

(ha)

	Area (ha)	Percent
Land assets in the region	3 803 511	100,0
Agricultural land in the region	1 653 259	34,4
Non-agricultural land (forests, pastures, stony and rocky areas, settlements, water surface)	2 150 252	65,6
Economically irrigable area	530 875	100,0
Area opened up for irrigation	240 655	45,3
Total area of irrigation projects included in the investment programme and under construction	80 612	15,1
Irrigation areas with planning, projects and studies completed	210 608	39,6
Total area to be opened up for irrigation (planning + projects + construction)	290 220	54,7

Source: DSİ (2004-3), KHGM (2004-1), TKİB (2003-1), TKİB (2003-2), TKİB (2003-3), TKİB (2003-4).

Figure 2.1.2.1 Regional Natural Resources and Economic Structure

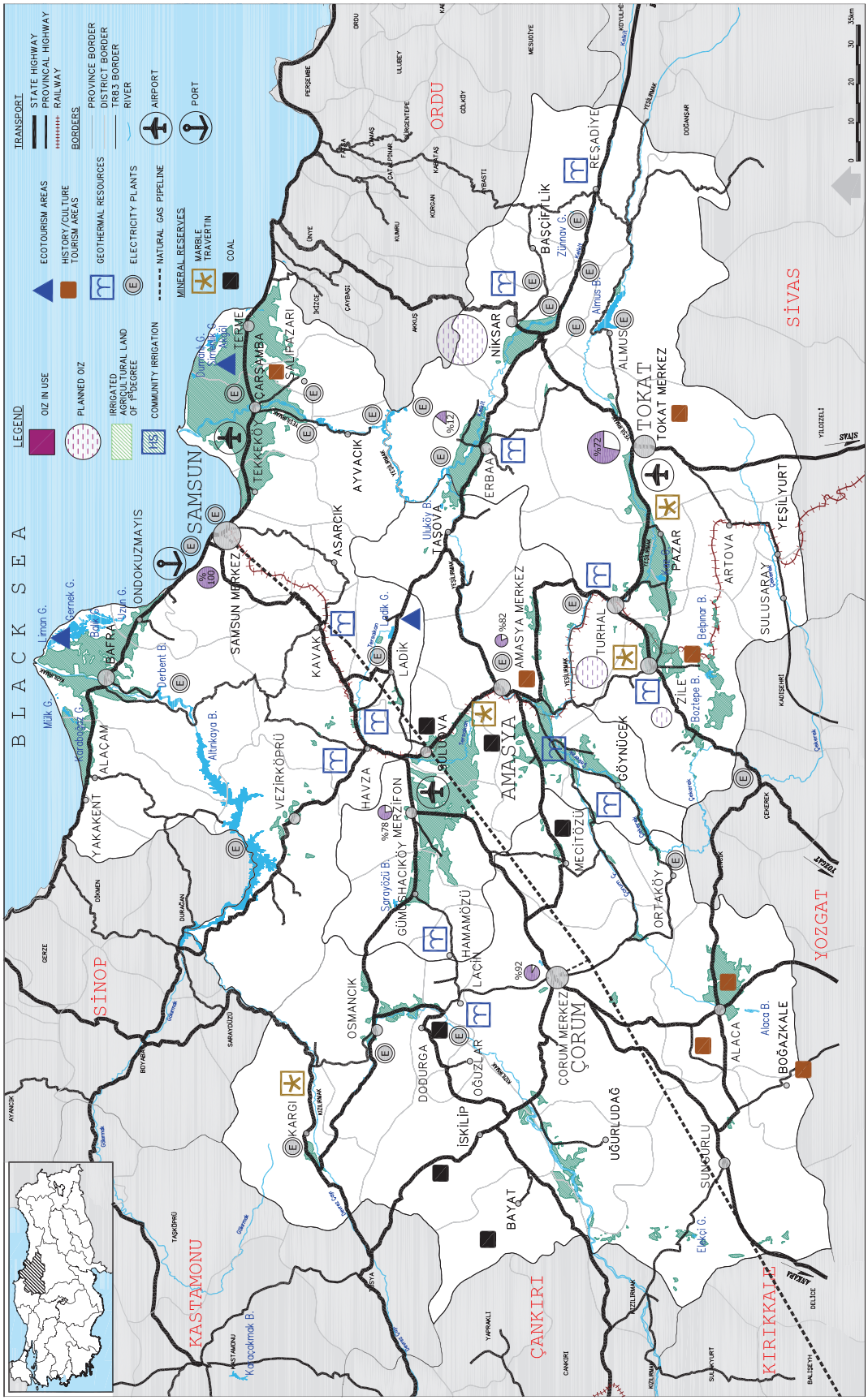


Table 2.1.2.6 Sizes of Agricultural Enterprises on a Nationwide and Regional Basis, 2001

		1991						2001					
	Farm size (decares)	Total number of farms	Total number of parcels	Total land (decares)	Average farm size (decares)	Average number of parcels	Average parcel size (decares)	Total number of farms	Total number of parcels	Total land (decares)	Average farm size (decares)	Average number of parcels	Average parcel size (decares)
TR83	Landless	3 694	-	-	-	-		1 469	-	-			
	0-5	8 201	12 561	21 353	2,6	1,5	1,7	6 595	7 949	19 467	3,0	1,2	2,4
	6-9	21 752	51 555	139 903	6,4	2,4	2,7	16 667	31 710	111 323	6,7	1,9	3,5
	10-19	54 049	186 226	730 259	13,5	3,4	3,9	44 150	126 956	625 741	14,2	2,9	4,9
	20-49	106 137	580 724	3 188 051	30,0	5,5	5,5	90 062	389 769	2 866 762	31,8	4,3	7,4
	50-99	48 701	374 724	3 083 357	63,3	7,7	8,2	47 547	271 122	3 249 798	68,3	5,7	12,0
	100-199	18 133	196 198	2 324 734	128,2	10,8	11,8	17 355	116 984	2 265 490	130,5	6,7	19,4
	200-499	6 338	95 726	1 650 362	260,4	15,1	17,2	3 343	32 475	926 238	277,1	9,7	28,5
	500-999	413	9 041	219 498	531,5	21,9	24,3	218	3 696	160 542	736,4	17,0	43,4
	1000-2499	165	3 266	180 675	1 095,0	19,8	55,3	18	54	20 614	1 145,2	3,0	381,7
	2500-4999	1	20	3 650	-	-	-	-	-	-	-	-	-
	5000 +	4	114	64 657	16 164,3	28,5	567,2	3	14	53 603	17 867,7	4,7	3 828,8
	Total	267 588	1 510 155	11 606 499	44,0	5,7	7,7	227 427	980 729	10 299 578	45,6	4,3	10,5
Turkey	Landless	101 610	-	-	-	-	-	54 523	-	-	-	-	-
	0-5	251 686	411 477	667 059	2,7	1,6	1,6	178 006	292 514	481 987	2,7	1,6	1,6
	6-9	381 287	1 003 039	2 511 091	6,6	2,6	2,5	290 461	664 173	1 952 471	6,7	2,3	2,9
	10-19	752 156	2 722 088	10 042 501	13,4	3,6	3,7	539 816	1 650 312	7 378 022	13,7	3,1	4,5
	20-49	1 274 609	6 636 480	38 668 961	30,3	5,2	5,8	950 840	3 831 683	29 531 619	31,1	4,0	7,7
	50-99	713 149	5 119 892	46 750 693	65,6	7,2	9,1	560 049	2 836 069	38 127 032	68,1	5,1	13,4
	100-199	383 323	3 347 557	49 216 633	128,4	8,7	14,7	327 363	1 881 198	43 884 395	134,1	5,7	23,3
	200-499	173 774	1 849 928	46 487 432	267,5	10,6	25,1	153 685	997 015	42 075 497	273,8	6,5	42,2
	500-999	24 201	349 784	14 982 493	619,1	14,5	42,8	17 429	135 983	11 218 554	643,7	7,8	82,5
	1000-2499	10 266	126 080	13 856 621	1 349,8	12,3	109,9	4 199	32 760	5 476 930	1 304,3	7,8	167,2
	2500-4999	1 930	30 136	6 538 082	-	-	-	222	1 189	695 541	-	-	-
	5000 +	441	4 811	4 789 427	10 860,4	10,9	995,5	57	509	3 526 175	61 862,7	8,9	6 927,7
	Total	4 068 432	21 601 272	234 510 993	59,1	5,4	10,9	3 076 650	12 323 405	184 348 223	61,0	4,1	15,0

Source: DİE (1993-6), DİE (2004-14).

enterprises making any large scale production except for those engaged in livestock rearing/stock-farming. This operational structure is the basic reason for low efficiency. It must be noted that the agricultural development policies followed so far have just become instrumental in maintenance of this structure.

It is noted that the land resources in the region are entirely operated by farmers and that those living outside the region are very rarely land owners in the region. These statements indicate that those who have permanently migrated from the region's villages and reserve their rights stemming from heritage are included in the group of those land owners who have land in villages although they stay outside such villages.

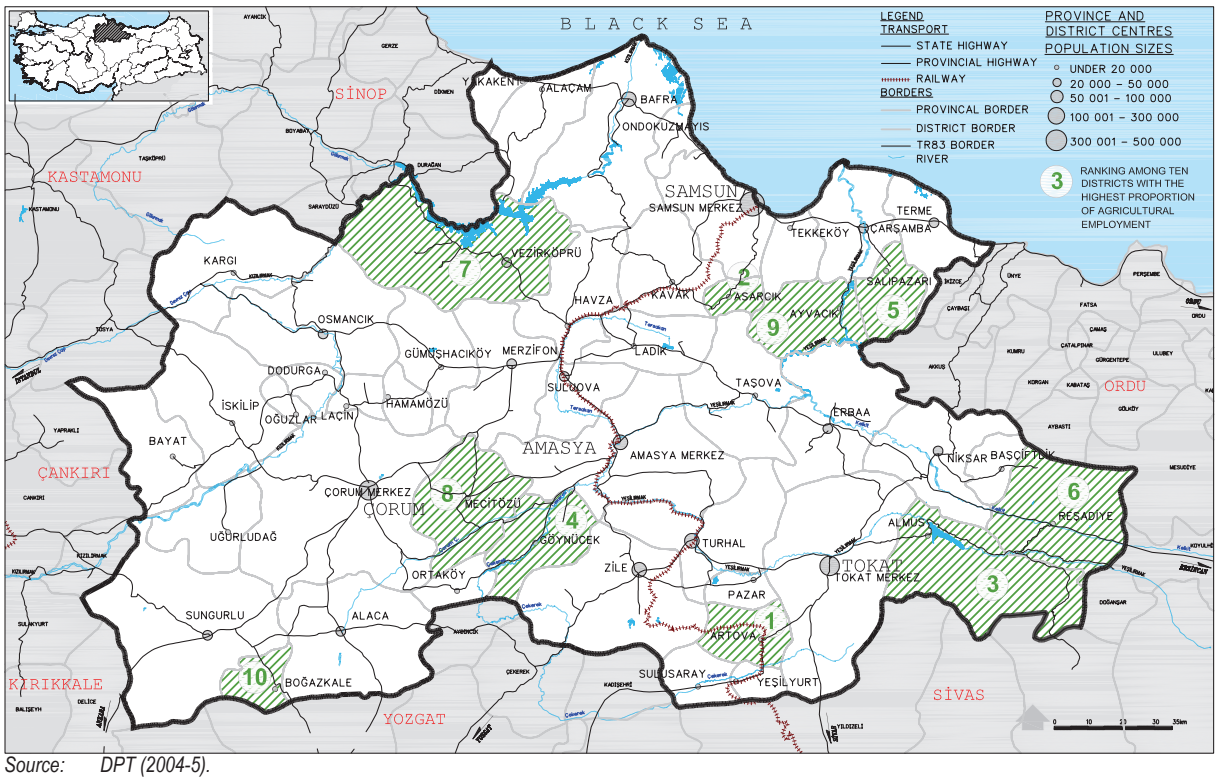
Small scale agricultural enterprises are unable to achieve mass quality production to high standards, have access to information, secure resources for agricultural mechanization and use and operate advanced agricultural technologies and inputs efficiently and adequately, have specialization and they do not consider it necessary to employ agricultural advisors and show any interest in marketing organizations and farmer training, preferring to continue production through primitive methods. As a result of all these negative conditions, production costs of agricultural products rise and there is less chance of being able to compete with countries in the world in agriculture (Dolsar, 2004-1).

Table 2.1.2.7 Number of Households by Rural Settlement and Agricultural Activity

	1991		2001	
	Number	Percent	Number	Percent
Total number of settlements	2 646		2 818	
Total number of households	283 712	100,0	349 232	100,0
Number of households engaged in agriculture	267 588	94,4	277 552	79,5
Number of households not engaged in agriculture	16 124	5,6	71 680	20,5

Source: DİE (2004-7).

Figure 2.1.2.2 Districts with Highest Agricultural Employment Rate in Total Employment



Source: DPT (2004-5).

A fact observed in Turkey in recent years is that the number of families living in rural areas obtain their basic revenues through means other than agriculture. Between 1991–2001, the number of people who generate revenues from non-agricultural activities, although they live in rural areas, has increased by about four times. This fact also applies for the region. The values provided by Table 2.1.2.7 in connection with the types of activities indicate that farming is not the primary sources of income for 20 percent of the families living in villages. This rate increases parallel to settlement size.

An analysis of ten districts having the highest agricultural employment indicates that they are among the least developed districts according to the rankings of socio-economic development at the same time (Figure 2.1.2.2). It would be more appropriate to use the agricultural production values in determination of the districts having prominence in terms of agricultural activities. From this viewpoint, the top ten districts are: Çarşamba, Bafra, Terme, Amasya center, Çorum center, Tokat center, Erbaa, Turhal, Zile and Alaca.

2.1.2.1.1.3 Efficiency

The existence of more favorable land and climate conditions for certain agricultural products generally reflects in the efficiency figures that are above the nationwide averages. Relatively high efficiency is observed in cherries, dry onions, tomatoes, fresh beans and soy in this order of precedence in the region. Given the fact that use of inputs in the region is not much different from the nationwide average, it may be thought that these efficiency differences reflect the region's comparative superiority (Table 2.1.2.8).

Some of the products for which the region has comparative superiority are directly produced both locally and used for export markets. Processing industry-based production is dominant for some products (sunflowers, sugar beets, sour cherries and the like). Use serving both purposes is important in the case of certain products such as tomatoes and beans. Some industrial products (soy beans, tobacco, sugar beets and the like) also involve the processing industry.

As one of the comparative superiority indicators, the per capita agricultural production value obtained in the region between 2000 – 2003 has been compared with the nationwide situation and neighboring and similar regions (Table 2.1.2.9). Accordingly, Region TR83 has agricultural production values which are higher than those of Region TR82 but lower than other regional and nationwide averages per capita. There are also substantial differences between the region's provinces and the provinces in other regions. As per capita agricultural production value is YTL 5 592 in the province of Karaman, this value is YTL 2 594 in in the province of Amasya; the difference between them is 2,15 fold. The per capita agricultural production values in the provinces of Samsun and Çorum in the region have medium rankings as they follow each other at YTL 1 964 and 1 775. The per capita

Table 2.1.2.8 Product Efficiencies on a Regional, Nationwide and Global Scale

			Important producing countries and their average crop yields	
Crops	Yield in Turkey (kh/ha)	Yield in the region (kg/ha)	Country	Average yield (kg/ha)
Wheat	2 099	1 990	France	6 235
Maize	5 015	4 087	Spain	9 112
Chickpeas	959	982	China	4 000
Green beans	8 258	8820	Greece	8 434
Soya	3 148	3 191	Argentina	2 803
Sunflowers	1 475	968	China	1 724
Sugar beet	40 141	33 769	Chile	60 000
Tomatoes	42 391	47 372	Brazil	59 231
Onions	19 313	23 552	Germany	34 523
Cherries	10 039	22 000	Iran	8 628
Apples	23 020	15 730	Italy	31 960

Source: FAO (2004).

Table 2.1.2.9 Comparison of the Averages of Agricultural Production Values in the Period of 2000 – 2003 with Employment Values for 2000 Census

Territorial Units of Level 2	Provinces	Total Population	Agricultural Employment According to 2000 Population Census			* Crop Production	* Animal Production	* Animal Products	* Total Animal Production	* Total Agricultural Production	* Production Figure Per Individual Working in Agriculture
			Male	Female	Total						
TR 52 KONYA	Karaman	243 210	29 272	33 735	63 007	250 272 151	42 347 345	59 725 848	102 073 192	352 345 343	5 592
TR 71 KIRIKKALE	Niğde	384 081	50 774	64 867	115 641	263 851 857	47 413 019	20 191 139	67 604 158	331 456 015	2 866
TR 83 SAMSUN	Amasya	365 231	43 128	51 718	94 846	156 167 467	43 562 437	46 255 854	89 818 291	245 985 758	2 594
TR 71 KIRIKKALE	Nevşehir	309 914	44 266	58 235	102 501	203 233 230	24 137 525	21 432 556	45 570 081	248 803 312	2 427
TR 71 KIRIKKALE	Kırşehir	253 239	26 613	35 410	62 023	82 914 911	29 297 987	21 578 713	50 876 700	133 791 611	2 157
TR C2 ŞANLIURFA	Ş.Urfa	1 443 422	147 211	165 402	312 613	480 827 657	142 119 617	49 909 639	192 029 256	672 856 913	2 152
TR 52 KONYA	Konya	2 192 166	232 834	279 617	512 451	552 487 364	243 000 859	228 161 756	471 162 614	1 023 649 979	1 998
TR 83 SAMSUN	Samsun	1 209 137	131 892	188 207	320 099	423 034 088	109 121 258	96 642 561	205 763 819	628 797 908	1 964
TR C2 ŞANLIURFA	Diyarbakır	1 362 708	109 750	144 496	254 246	315 921 513	115 802 661	63 971 444	179 774 104	495 695 617	1 950
TR 71 KIRIKKALE	Aksaray	394 084	48 873	61 795	110 668	128 058 993	48 545 816	31 908 127	80 453 943	208 512 936	1 884
TR 83 SAMSUN	Çorum	597 065	71 106	96 008	167 114	161 094 007	68 012 083	67 461 156	135 473 239	296 567 247	1 775
TR 82 KASTAMONU	Kastamonu	375 476	54 599	76 691	131 290	89 371 025	77 878 003	49 151 985	127 029 987	216 401 012	1 648
TR 82 KASTAMONU	Çankırı	270 355	36 283	45 189	81 472	57 567 162	37 846 426	35 614 608	73 461 034	131 028 196	1 608
TR 71 KIRIKKALE	K.Kale	383 508	27 378	31 893	59 271	61 131 221	17 690 467	11 189 127	28 879 594	90 010 815	1 519
TR 82 KASTAMONU	Sinop	225 574	30 939	43 776	74 715	37 404 469	42 809 186	23 646 125	66 455 312	103 859 781	1 390
TR 83 SAMSUN	Tokat	828 027	117 912	135 374	253 286	195 971 172	82 295 362	39 722 453	122 017 814	317 988 987	1 255
TR 52 KONYA		**2 435 376**	**262 106**	**313 352**	**575 458**	**802 759 515**	**285 348 203**	**287 887 603**	**573 235 807**	**1 375 995 322**	**2 391**
TR 71 KIRIKKALE		**1 724 826**	**197 904**	**252 200**	**450 104**	**739 190 212**	**167 084 814**	**106 299 662**	**273 384 476**	**1 012 574 688**	**2 250**
TR C2 ŞANLIURFA		**2 806 130**	**256 961**	**309 898**	**566 859**	**796 749 170**	**257 922 278**	**113 881 083**	**371 803 361**	**1 168 552 531**	**2 061**
Turkey		**67 803 927**	**5 443 771**	**7 133 056**	**12 576 827**	**14 275 453 698**	**5 504 478 379**	**4 616 900 235**	**10 121 378 614**	**24 396 832 312**	**1 940**
TR 83 SAMSUN		**2 999 460**	**364 038**	**471 307**	**835 345**	**936 266 735**	**302 991 140**	**250 082 023**	**553 073 164**	**1 489 339 899**	**1 783**
TR 82 KASTAMONU		**871 405**	**121 821**	**165 656**	**287 477**	**184 342 656**	**158 533 615**	**108 412 718**	**266 946 333**	**451 288 989**	**1 570**

Note: The following co-efficient values computed on the basis of DİE 2005 Turkey Almanac of Statistics Table 19-1 have been used in conversion of the values into prices for 2000.
2000=1,000
2001=1,423
2002=2,225
2003=2,980
** YTL, at 2000 Prices*
Source: DİE (2003-1), DİE (2003-11).

agricultural production value in Tokat, which has the lowest ranking, is YTL 1 255. The reason for the lowness of this value in the region, particularly in the province of Tokat, is that the rural population and the population employed by agriculture as part of this population are high. It would be possible for the region to have an advantageous position by placing emphasis on those products having the comparative superiority referred to above as a result of the decrease in the rural population due to out-migration in Region TR83 failing to have a top ranking in respect of comparison of total production values.

Because a large portion of the agricultural enterprises are family owned, they obtain a significant portion of workforce from their own family members. There is hidden unemployment of substantial proportions in the region's agriculture. Workforce requirements of the present production have been calculated at 58 million days/year for vegetal production, 27 million days/year for animal husbandry activities and 85 million days/year on a total basis. However, supply of workforce (263 million days/year) is more than three times the requirements.

2.1.2.1.2 Animal husbandry

Eight point three (8,3) percent of the present cattle stocks is in this region. As observed throughout the country, the numbers of cattle and sheep decline in the region as well. This quantitative decrease would not cause any problems as long as the present local cattle races are replaced by culture races having higher efficiency. However, although the number of culture race cattle increased nationwide between 1988–2003, it declined in the region except for in the province of Çorum.

Çorum and Samsun are Turkey's leading production centers for egg production and broiler production, respectively. The region's rich plant cover/vegetation has potential for a much higher number of beehives than the present number of beehives. The number of beehives in the region accounts for 4.2 percent of the total number of beehives in Turkey.

2.1.2.1.2.1 Sizes of Enterprises

Animal husbandry enterprises are generally small scale enterprises each having 2 to 10 animals and they are engaged in vegetal production and animal husbandry at the same time. Small scale dairy cattle raising enterprises face higher milk production costs and refrigeration facilities, which are necessary for preservation of milk quality, could not be established adequately due to the settlement pattern.

The poultry sector enjoys a position as the sole sector having EU standards in the region's animal husbandry sector in terms of efficiency.

There is production of salmon, trout and carp in fresh waters in the region although production of the latter is limited. Production is made by small family owned enterprises. There are no facilities-

Table 2.1.2.10 Animal Stocks in the Region, 2003

	Cattle (heads)	Sheep (heads)	Goats (coarse hair and Angora) (heads)	Laying hens (number)	Broilers (number)	Other fowls (number)	Beehives (number)
Amasya	125 376	99 889	13 745	310 450	53 200	43 888	15 686
Çorum	167 746	138 759	19 451	2 875 250	21 600	72 185	42 175
Samsun	315 278	229 711	13 029	1 309 370	5 757 500	148 183	83 224
Tokat	234 934	196 145	17 854	382 616	15 445	66 755	36 209
TR83	843 334	664 504	64 079	4 877 686	5 847 745	331 011	177 294
Turkey	9 879 000	25 432 000	6 825 000	60 343 000	217 133 000	6 135 000	4 242 136

Source: Amasya Tarım İl Müdürlüğü (2004), Çorum Tarım İl Müdürlüğü (2004), DİE (1999-3), DİE (2004-19), Samsun Tarım İl Müdürlüğü (2004), Tokat Tarım İl Müdürlüğü (2004-1).

making production at a large capacity in a commercial sense. Production of salmon, which has been initiated in the Black Sea, has failed to meet the desired results fully. The region's potential for production of aqua products cannot be exploited adequately and, as a result, the expected production performance cannot be fulfilled.

Expected efficiency could not be obtained from the fishing development efforts carried out in the dams by using salmon, trout and mirror carps. It has been discovered that at present, about 100 families are engaged in fresh water fishing in the region. No new facilities have been built in the region in the last 5 years. The bottlenecks in this area are: lack of baby fish for fishing, problems encountered with the National Property General Directorate and local administrations over the renting of ponds and water pollution.

There are about 200 families making a living with sea fishing. It is estimated that if the region's aqua products production potential could be harnessed at full capacity, aqua products could make a contribution of about 23–24 million US dollars to the regional economy per year.

2.1.2.1.3 Forestry

Thirty five point four (35,4) percent (1,8 million ha) of the region is covered by forest areas. 61,6 percent and 38,4 percent of the forest areas in the region are high forests and coppice forests. Half of the high forests and coppice forests have inferior quality. The forests in the region are of low quality. It is estimated that forest cuts are 2,6 fold of the estimated annual production increase.

Of the village population, the following percentages are in the forest villages: 65,4 percent in Amasya, 71,1 percent in Çorum, 77,6 percent in Samsun and 78,1 percent in Tokat.

2.1.2.2 Industry

The share by the regional industrial sector and industrial development rate lagged behind the nationwide averages between 1987 – 2001 (Tables 2.1.2.1 and 2.1.2.3). When all the industrial indicators as well as all the agricultural sector indicators are assessed together, it is seen that industrialization has failed to develop adequately in the region as the agricultural sector was dominant.

2.1.2.2.1 Manufacturing industry

2.1.2.2.1.1 Industrial Sector Added Value

Detailed information has been gathered as part of the Table of Inputs and Outputs prepared for the region in connection with the manufacturing industry production and added value. According to this study, the sub-sectors providing the highest added values as part of the regional manufacturing industry are: tobacco processing, food and drink manufacturing and non-metal products manufacturing. The high figure seen in tobacco is the reflection of the pricing policy of the State monopoly.

Table 2.1.2.11 Composition of the Region's Manufacturing Industry

(Million YTL at 2003 pricesL)

	Value-added	Production value	Value-added/ production
Food and beverages	447	1 289	0,35
Tobacco processing	488	755	0,65
Textiles	151	176	0,86
Clothing, etc.	141	221	0,64
Leather goods	25	31	0,81
Wood and cork products	21	63	0,33
Paper and paper products	47	103	0,46
Printing and publishing	64	123	0,52
Chemicals	103	244	0,42
Non-metallic products	254	407	0,62
Basic metals	107	287	0,37
Metal goods	100	206	0,49
Other machinery and equipment	138	171	0,81
Motorized vehicles	38	91	0,42

Source: DOLSAR (2004-3).

2.1.2.2.1.2 Employment by Manufacturing Industry

According to the results of the 2000 Census, the employment by the industrial sector is 78 536 persons in the region. According to this broadest definition, 6,3 percent of the total employment (1 248 744) in the region is accounted for by the industrial sector. The industrial sector is dominantly comprised of manufacturing industry; according to the results of the census, the employment by the manufacturing industry totaled 56 716 persons and 59 773 persons in 1985 and 2000, respectively. It is noted that in this period the number of females employed by the manufacturing industry fell from 12 124 to 8 258.

In this respect, the most comprehensive source after the results of the census is DİE Industrial Surveys. According to such surveys, the number of employees in the region's industry was 47 040 in 2002. The breakdown by company size of this employment is quite striking. A large portion of both enterprises and employees are concentrated in the group of enterprises employing less than 10 persons. Employment by the enterprises employing more than 10 persons was 19 012 persons in 2002.

It may be thought that the difference between the figures provided by the census and industrial surveys is due to those employees not having any specific workplaces and those employed by registered companies illegally.

Table 2.1.2.12 Numbers of Workplaces and Employees, 2002

Number of employees	Number of businesses	Percent of businesses	Number of employees	Percent of employee
1-9	8 849	94,7	28 028	59,6
10-19	198	2,1	2 775	5,9
20-29	137	1,5	3 277	7,0
30-39	116	1,2	4 286	9,1
40-49	10	0,1	420	0,9
50-59	4	0,0	210	0,4
60+	35	0,4	8 044	17,1
Total	9 349	100,0	47 040	100,0

Source: DİE (2004-8).

All the enterprises in the region excluding 2 tobacco processing enterprises and 4 sugar factories fall in the scope of the European Union definition of SMEs.

2.1.2.2.1.3 Efficiency by manufacturing industry

The poll by the DİE on the enterprises employing 10+ persons is the primary source on the changes which have occurred to the industrial employment and its added value over time. This source indicates that there have been no major changes to the production and employment by the manufacturing industry contrary to the partial development provided by the national income series.

2.1.2.2.1.4 Public and Private Sector Enterprises

The public sector dominated structure in Samsun, Amasya and Tokat stems from this sector's tobacco and sugar factories. Thirty eight public sector enterprises in the region account for one third of total manufacturing industry employment and two thirds of the added value. The entire public sector activities, which are comprised of copper processing and production of sugar, tobacco and fertilizer, has suffered substantial shrinkage due to the new economic program.

Table 2.1.2.13 Periodical Developments in Region TR83 Industrial Sectors, 1993 – 2001

(At 2003 prices)

Years	Number of businesses	Number of employees (thousand)	Value-added (YTL million)	Value-added per employee (YTL)
1993	307	24	937	39 045
1994	273	22	607	27 598
1995	274	20	743	37 142
1996	280	21	602	28 682
1997	281	22	686	31 170
1998	272	21	831	39 585
1999	254	20	1 074	53 723
2000	247	20	940	46 980
2001	223	17	962	56 582

Source: DİE (1995-2), DPT (2002-2), DPT (2004-7).

Table 2.1.2.14 Manufacturing industry in Region TR83 and Turkey (workplaces employing 10+ persons), 2000

(YTL thousand at current prices)

		Number of work places	Number of personnel	Value-added	Value-added per capita
Amasya	A	23	1 897	-6 230	-3,3
	B	0	0	0	0,0
	C	23	1 897	-6 230	-3,3
Çorum	A	86	4 995	54 911	11,0
	B	1	492	23 985	48,8
	C	85	4 503	30 926	6,9
Samsun	A	96	8 340	100 807	12,1
	B	8	4 134	33 348	8,1
	C	88	4 206	67 459	16,0
Tokat	A	42	4 798	182 720	38,1
	B	4	2 726	167 378	61,4
	C	38	2 072	15 342	7,4
TR83	A	247	20 030	332 208	16,6
	B	13	7 352	224 711	30,6
	C	234	12 678	107 497	8,5
İZMİR	A	1 020	94 172	2 755 119	29,3
	B	8	11 998	1 177 507	98,1
	C	1 012	82 174	1 577 612	19,2
Turkey	A	11 099	1 125 787	23 568 573	20,9
	B	263	124 483	4 828 827	38,8
	C	10 836	1 001 304	18 739 746	18,7

A: Total B: Public C: Private

Source: DİE (2002-9).

2.1.2.2.1.5 Manufacturing Industry Site Selection

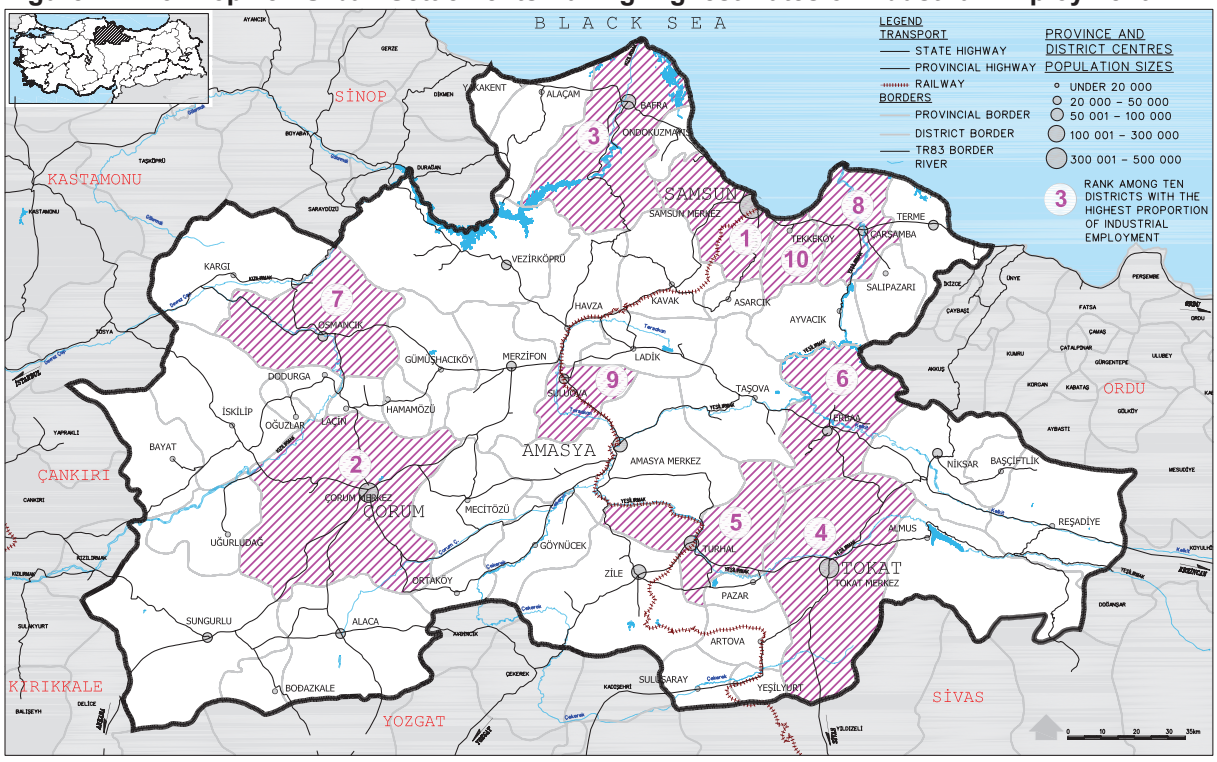
The analyses conducted on a district basis documents the fact that industries have concentrated on several settlements in the region. The industrial employment rate, which is 6,3 percent on a region-wide basis, is above the regional average

Table 2.1.2.15 Top Ten Settlements Where Industrial Employment Is Significant and Industrial Employment

Seq.	Settlement	Share of industrial employment (Percent)
1	Samsun Merkez	25,8
2	Çorum Merkez	15,6
3	Bafra	7,8
4	Tokat Merkez	5,8
5	Turhal	5,2
6	Erbaa	5,0
7	Osmancık	4,8
8	Çarşamba	4,4
9	Suluova	2,9
10	Tekkeköy	2,6

Source: DİE (2002-3), DİE (2002-4), DİE (2002-5), DİE (2002-6).

Figure 2.1.2.3 Top Ten Urban Settlements Having Highest Rates of Industrial Employment



Source: DİE (2002-3), DİE (2002-4), DİE (2002-5), DİE (2002-6).

in Samsun, Çorum and Bafra as it is below this average in other settlements. In recent years, the regional industrialization rate is higher than other provinces in Çorum. However, this province is still far from industrialization compared with Samsun.

2.1.2.2.1.6 Educational levels of employees

The breakdown by sector and educational level of the employment by manufacturing industry in the region according to the results of the 2000 Census is provided below. The number of employees having high school and advanced education is about one fourth of the total figure. There are no substantial differences between the sub-sectors in terms of staff educational levels.

The industrial structure of Region TR83, which concentrates in a limited number of sectors, is comprised of three types of enterprises. First of all, the pioneering function of the public sector factories in sugar and tobacco is noteworthy. A spontaneous industrialization process has been experienced. They are the types of manufacturing processing local inputs such as food, stone and soil based industries and wooden and forestry products.

The second group of industrial enterprises are the producers of metal articles, machinery and equipment, which have emerged to meet the machinery supply requirements of the first group. They have developed over time, reaching a position to carry out production outside the region as well.

The third group is comprised of those industries having no direct relationships with the region's resources, which are relatively new for the region and have development partially depending on external demand in addition to internal demand. In connection with this last category, the clothing articles industry has a top place among the sectors operating in the sector. Again, although they do not have top rankings in this regard, other manufacturing industries involving different products such as special purpose machinery, medical supplies, metal articles, computer tapes and recording media have gained increased prominence in recent years.

The leading sectors in Region TR83 manufacturing industry in terms of both workplaces and employment in 1985, 1992 and 2002 are, according to ISIC R2 classification: food, liquor and tobacco industry; weaving; apparel and leather industry; forestry products and furniture industry; metal articles and machinery – equipment industry. Between 1985–2002, a decline has been suffered by weaving, apparel and leather industry and chemicals, oil, coal and plastic industries in terms of their shares in the number of workplaces and by weaving, apparel and leather industry and forestry

Table 2.1.2.16 Educational Levels of Employment by Sector in Region TR83, 2003

	No school finished		Primary education		High school		University		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Food and beverages	930	4,3	14 269	65,4	5 523	25,3	1 111	5,1	21 833	100,0
Textiles	448	3,4	9 919	75,4	2 473	18,8	314	2,4	13 154	100,0
Forest products	412	3,8	8 849	81,4	1 446	13,3	164	1,5	10 871	100,0
Paper	23	1,3	963	53,4	656	36,3	163	9,0	1 805	100,0
Chemicals	97	2,6	2 150	58,0	1 103	29,8	354	9,6	3 704	100,0
Stone and earth industry	596	7,1	6 415	76,4	1 173	14,0	218	2,6	8 402	100,0
Metal goods	52	3,2	1 093	66,5	399	24,3	99	6,0	1 643	100,0
Transport vehicles	287	2,8	7 574	72,7	2 043	19,6	508	4,9	10 412	100,0
Other manufacturing	31	4,7	454	69,1	143	21,8	29	4,4	657	100,0
Total	2 876	4,0	51 686	71,3	14 959	20,6	2 960	4,1	72 481	100,0

Source: DİE (2002-3), DİE (2002-4), DİE (2002-5), DİE (2002-6).

products and furniture industry and metal articles, machinery and equipment industry in terms of the number of their employees. Other sectors managed to increase their shares though marginally.

2.1.2.2.1.7 Industrial Organization

There are a total of 13 OIZs in the region, of which 7 are functional in addition to 28 Small Industrial Estates (SIEs), of which 3 are at the stage of study under the investment program. 8 477 persons were employed by 677 enterprises operating in the regional OIZs as of 2004 as 286 parcels were unallocated. There are no unallocated parcels in Samsun OIZ. The regional average occupancy rate is 68,5 percent in the SIEs. This rate is as high as 90 percent in the provinces other than Samsun. KOSGEB, which extends support to the regional industries, has centers in Samsun and Çorum.

2.1.2.2.2 Mining

The regional mining is comprised of marble production and extraction of feedstock for bricks, tiles and ceramics. Region TR83 has marble, lignite, antimony, bentonite and chromium as major mineral resources. In addition, the region has rich geo-thermal resources along the Northern Anatolia Fault Line.

According to the data for 2001 and 2002, the most important minerals for Region TR83 in terms of production are: bentonite, marble, chromium and manganese, which account for 3,09 percent, 2,81 percent, 2,70 percent and 1,84 percent of the nationwide production, respectively. They are followed by clay with 1,79 percent, limestone (feedstock for cement) with 1,66 percent and lignite with 0,66 percent.

It is understood based on a comparison of proven reserves with annual operation volumes that potential reserves would not restrict development of mineral resources and mining activities. It is observed that the quality of the industrial products by the mining operation in the region is not so good. It is thought that this stems from the structure of the processing industry rather than the quality of feedstock. When exports of marble reserves concentrated in the provinces of Amasya and Tokat are achieved after they are processed, they are expected to be a driving force in the region's development.

2.1.2.2.3 Production of electricity, gas and water

The region is a net exporter in electricity production. This is seen in the added values and employment by the sectors of electricity, gas and water, which are considered relatively higher. There is considerable concentration in this sub-sector in the province of Samsun.

The share by the regional construction industry in GDP is close to the nationwide average. Changes to employment and added value have developed close to the regional averages.

2.1.2.3 Services

As seen in the table below, trade is the sub-sector controlling the added value and employment created by the services sector. As part of the efficiency comparisons with regard to the services sector, those working for personal services appear to be below the regional average values. It is estimated that an evaluation to be made by excluding public employees would point to efficiency in services, which would be equal to that of agriculture.

The contribution by the financial institutions and added value per employee are surprisingly low. It is believed that the changes forced by the crisis of 2001 upon the banking sector and the declining public sector share in the banking sector have had greater impact on the region than on a nationwide basis. The falling shares by Halk Bank and Ziraat Bank, two major public banks, in the financial sector, will adversely affect the region. Receiving a

share of 4 percent in the credits extended by these two banks, the region has a share of 1 percent in the total credits extended by the banking system other than them.

The share by the regional commercial sector in the economy is slightly higher than the nationwide average. Samsun and Çorum are the provinces which are most developed in terms of trade. Commercial activities in Amasya, and particularly in Tokat, are well below the nationwide average. However, the development rate of commercial activities in Amasya is above the nationwide average. Samsun is the most important commercial center in the region and it presently maintains this position. The commercial sector rapidly advances in Amasya and it is seen that revenues generated through hotel and restaurant services in particular thanks to this province's tourism potential are relatively higher.

The Samsun Fair is no longer as popular as it was until recent times. The number of the national or regional scale fairs held in Samsun regularly on an annual basis is just a few. Even if the newly arranged park spaces are also taken into account, Samsun, which has strong fair infrastructure, lacks an adequate number of quality accommodation facilities. Regional businessmen willing to make use of this infrastructure exert serious efforts to ensure that specialization (theme) fairs are held in Samsun. In addition, there is a fair site in the province of Çorum and efforts are under way to build an advanced industrial fair complex there.

The volume of foreign trade made through the 3 customs gates in the region (Çorum, Tokat and Samsun) is very limited. The amount of exports made via these gates account for less than 1 percent of Turkey's total exports. This ratio is again at the same level in the case of imports. Imported items include iron or steel articles, zinc and articles made of zinc and ships and boats. Products imported for purposes of re-exporting are re-exported via the Samsun Free Zone. Major export markets are Israel, Italy, China, the USA and France.

It is concluded that agricultural and animal husbandry products produced in the region are mostly sent to the major cities (Istanbul, Ankara, İzmir) as well as to the neighboring provinces of Kastamonu, Kayseri and Trabzon. As small scale industrial enterprises procure their feedstock and services from the major cities, they market their products in the neighboring regions. About 25 percent of the total volume imported by Turkey is imported by Region TR83. A significant portion of the volume of cereals imported by Turkey arrives in the country via this region.

Manufacture of flour, fodder, bread and pastry based on cereals is the most developed agriculture based sector other than the production of tobacco products and sugar. Eight percent of the flour mills in Turkey is located in this region. Flour produced is sold to the neighboring regions while they are also exported at the same time.

Fire resistant ceramic products, limestone, copper and tractor trailers for agricultural purposes as far as industrial products are concerned are consumed by the neighboring regions or other regions. The industrial products exported from the region include zinc and articles made of zinc, iron or steel articles, copper and articles made of copper and ships and boats.

Table 2.1.2.17 Breakdown of Employment and Added Value by Services, 2000

(percent)

	Employment	Value-added
Construction	13,03	11,76
Retail and wholesale commerce	23,21	47,59
Transport	7,24	34,69
Financial institutions	5,24	3,82
Community services	51,28	2,14
Total	100,00	100,00

Source: DİE (2002-2), DİE (2002-3).

Exports of fodder, fruits, vegetables, meat, trees and wooden articles, cereals and flour made from the region are of considerable volumes although they do not have a considerable weight in total exports. Given the fact that exports that are made from the region are mainly sent to the developing markets such as Russia, Georgia and Romania, it is estimated that this export potential will gradually increase further.

Items imported by the region include metal ores and fertilizers. In addition, oil group products, cotton and wooden fiber, sewing yarn, cotton weaving, knitted fabrics and leather products, paper, stationery, printed books, paints/dyes, plastic raw materials, ceramic sanitary products, aluminium and light metal cast products are procured from other regions in Turkey. Mechanical connection parts and certain mechanical manufacturing items are procured from the Kayseri Region as recreational and sport boats are supplied by the regions of Trabzon and Kastamonu.

It has been noted by the field surveys conducted in the region that a significant portion of the industrial enterprises employing more than 10 persons has export commitments to meet. Iran tops the list of countries these enterprises export to and it is followed by Italy and the USA. It is observed that the EU countries have a controlling share of the countries exports are made to. The list of countries from which imports are made are Italy, the UK, Germany and Russia in this order of precedence.

Storage and warehousing services are inadequate in the region. Shuttle trade, which is one of the issues which might affect foreign trade in the region, has lost significance parallel to the general trend in Turkey.

Samsun Free Zone located at Samsun Port reached a trade volume of 25 million US dollars in the first quarter in 2004. The zone has a total of 10 workplaces and 28 offices. Of a total of 10 licensed operators, 5 are engaged in production and 5 in trading activities. The Free Zone houses companies trading with and selling food and construction materials to Russia and the Commonwealth of Independent States (CIS).

Samsun is the only port of international standards operated by TCDD, which has railway links to the hinterland. The present operating capacity is well below the facility's physical capacity and capacity can be increased extraordinarily through purchase of cranes and equipment. The only international airport capable of serving civilian aviation and tourism is again in Samsun. Efforts to open up a military purpose airport in Merzifon for civilian traffic cannot be concluded successfully at present. The airport opened in Tokat had to be closed down for lack of a sufficient number of passengers after a short time but flights have been resumed by a private company recently.

Although the share by the construction sector in GDP generated in the region is not so high (between 7,1 percent and 4,4 percent between 1987 and 2001), the number of allied sectors impacted by it is rather high (as indicated by the regional I-O Analysis). In addition, it is one of the sectors of strategic importance due to the fact that it can provide employment to a population having low skills and training. The share by the regional construction sector in GDP is much lower than the nationwide average (4,4 percent and 5,2 percent for 2001 at current prices, respectively). The sector's regional development index is also well behind the nationwide average.

In terms of employment offered by the sector, the region can create employment at a rate lower than the overall employment offered nationwide (3,49 and 4,60 for 2000, respectively). However, there was an improvement in the share by the regional construction sector in employment at a rate higher than the nationwide average between 1980 and 2000 (the nationwide construction sector's share and the regional share rose from 4,13 to 4,60 and from 2,78 to 3,49, respectively).

The advantage of the region in terms of the construction sector is that certain construction materials are produced in the region and that materials such as tiles and bricks can be marketed outside the region. The region stands a good chance of achieving advancement on production of construction materials such as forestry products and processed marble thanks to its possession of natural resources. Construction activities, which are one of the sectors hit hardest by the economic crisis, displays signs of recovery in Turkey as well as in the region, especially the sub-sectors of building construction and non-building construction.

2.1.2.3.1 Tourism

Region TR83 has natural, archeological, historical and cultural values which can be made use of for tourism. Global tourism is presently undergoing a transformation heading towards a structure based on small scale enterprises. Although it is limited in terms of scale and contents, a tourism movement which may be maintained throughout the year can develop in different fields of tourism catering to nature, culture, history, health, congresses and entertainment.

Uninterrupted settlements in the region since the prehistoric ages have made it possible to take over many works of antiquity and historical/cultural heri-

Table 2.1.2.18 Regional Resources Having Tourism Potential

Prov.	Name	Nearest Settlement and Distance		Usage Objectives and Means	Remarks
AMASYA	Amasya City Center	Amasya	-	Historical city fabrics	
	Borabay Lake	Taşova	25 km	Camping, jogging, climbing	1st Degree Historical Site Zone and Tourism Center
	Yedikır Dam Pond	Suluova	7 km	Ornithology, fishing by fishing line	Yedikuğular Birds' Paradise
	Terziköy Springs	Amasya	27 km	Springs, health tourism	
ÇORUM	Boğazköy – Hattushash Archeological Site	Boğazkale	-	Archeological site	Boğazkale National Park
	Alacahöyük Archeological Site Zone	Alacahöyük	-	Archeological site	Alacahöyük National Park
	Ortaköy – Sapinuva Archeological Site Zone	Ortaköy	-	Archeological site	
	İskilip and Kargı High Plateaus	İskilip Kargı	13-26 km	Recreational / picnic areas, vista points, nature tourism, jogging	
SAMSUN	Fish lakes	Bafra	20 km	Ornithology, fishing by fishing line	Kızılırmak Delta Wetland Area Eco-System
	Çarşamba Lakes	Çarşamba	12 km	Nature tourism and fishing	Yeşilırmak Delta Wetland Area Eco-System
	Simenit and Akgöl	Terme	8 km	Ornithology, eco-tourism	Yeşilırmak Delta – Wild Life Preservation Site
	Havza – Ladik Thermal Facilities / Ladik Lake	Havza- Ladik	-	Springs, health tourism, water sports, nature, jogging	
TOKAT	Zinav Lake	Reşadiye	25 km	Recreational / picnic areas	Envisaged capacity: 1,250 persons
	Sulusaray Springs	Sulusaray	2 km	Springs, health tourism	130 beds
	Reşadiye Springs	Reşadiye	1 km	Springs, health tourism	Envisaged capacity: 30 beds, 7,400 persons
	Ballıca Cave	Pazar	6 km	Cave tourism	-
	Topçam High Plateau	Tokat	15 km	Recreational and picnic areas	Envisaged capacity: 10 – 15 families

Source: Kültür ve Turizm Bakanlığı (2004-5).

tage. In addition, an environment (excluding water resources), which is not yet too polluted, generally offers opportunities for development of tourism in the region. They include natural attractions such as many thermal springs, lakes and caves, deltas covering wetland ecological systems, wild life preservation sites or national parks. The table below identifies those of these resources which have potential to be used for tourism purposes.

The region's tourism movements have a structure heavily dependent on local tourism. The total accommodations in the region account for only 1,8 percent of the nationwide figure. Because average stay periods are below the nationwide averages, the region has a lower share in the number of accommodations. A significant portion of the facilities in the region are the facilities licensed by municipalities. Although it has values such as Hattushash, which has been selected as one of the world's nine cultural heritages, Çorum is just able to attract a demand less than that for Samsun and equal to those for other provinces and this stresses the lack of promotional activities for the sector.

Samsun Port can attract a traffic load much below its capacity depending on the problems related to operation and facilities. The only international airport capable of serving civilian aviation and tourism is again in Samsun.

2.1.3 Social Structure

2.1.3.1 Education and Health

The rate of illiterate population is above the nationwide average in all the regional provinces throughout all the periods. On a region wide basis, Çorum is the province with the highest rate as Amasya has the lowest rate. In the region, one fourth of the female population is still illiterate. As of the academic year of 2001-2002, the nationwide preschool enrollment rate was 6.2 percent versus 4,9 percent in the region. The primary education enrollment rate (95,5 percent) in the region is close to the nationwide rate (98 percent). The middle school education enrollment rate (35,3 percent) is slightly lower than the nationwide average (36,9 percent). The enrollment rate in vocational and technical middle education is 19,7 percent, which is below both the nationwide average and the neighboring Regions TR72, TR82 and TR90. This indicates that there are shortcomings concerning vocational guidance and that qualified workforce training suffers serious deficiencies.

In the region, there is Ondokuzmayıs University (26 875 students in the academic year of 2003 – 2004) and Gaziosmanpaşa University (8 452 students) in Samsun and Tokat, respectively. Additionally, there are faculties and high schools in Çorum, which are attached to Gazi University. Amasya has 1 faculty and 3 education high schools attached to Ondokuzmayıs University (5 726 students in the Educational Faculty, 3 366 students in Amasya Vocational High School, 377 students in Health High School and 499 students in Merzifon Vocational High School).

It is observed that the region's health indicators are also below the nationwide average. Inpatient health care institutions are inadequate in terms of both equipment and staffing. As the average population per physician is 787 on a nationwide basis as of 2000, this number is 1 061 for the region. Bed occupancy rates are very low particularly in

district state hospitals; this indicates that available capacity cannot be used adequately. Health stations fail to operate efficiently although they are adequate quantitatively. Health workforce is not adequate and qualified. Its geographic distribution is unstable. Immunization works are generally carried out by the health stations and the vaccination rates are far from the theoretical targets. The rate of population not covered by insurance is very high.

2.1.3.2 Culture

Culturally, the region has a rich historical line. Having hosted many import trade routes in the past, the Region possesses numerous works of arts and historical ruins from many civilizations from the Assyrian trade colonies to the Seljuk's. There are ten museums in the region. A breakdown by province of the cultural heritages which have been noted in the inventories after completion of registration by the museums indicates that the provinces of Tokat and Samsun claim the top rankings; they are followed by Amasya and Çorum. The numbers of libraries are 13, 18 and 19 for Amasya, Çorum and Samsun, respectively plus 15 libraries in Tokat. In addition, numerous festivals are held in the region.

Shortcomings are noticed over the protection of existing cultural heritages and level of awareness on such protection in the region. Historical fabrics cannot be preserved due to the trend of building high rise buildings instead of conventional structures in most cities and towns and preservation remains limited to individual buildings only. On a region-wide basis, Amasya enjoys the title of the province able to preserve its traditional culture to the maximum extent. Efforts are under way to revive the tourism potential through preservation and restoration works and promotional activities. Major steps in this direction include restoration of Yalıboyu Houses, conversion of Bimarhane, where mental and neurological disorders were treated in the past, into a municipal conservatory after restoration and conversion of Beyazıt Külliyesi into a public library. Çorum is a province very rich in archeological works because it served as a major center in many periods. However, such works suffer serious destruction because civil architecture works belonging to the Seljuk and Ottoman periods are located within the new development areas. Parallel to economic development and urban enlargement, most of those Çorum Houses reflecting the past have been destroyed or left to decay. These houses have very beautiful samples of plastering works in particular.

Traces of past cultures have remained only a constructional scale in Samsun as no areas which could be defined as an urban historical preservation site could be protected. Protection works continue only on a constructional scale in Tokat as well. This province was one of the most important centers in Anatolia as it was at a crossroads in the past. Therefore, there are many inns and bazaars particularly from the Ottoman era but most of them are not maintained or used.

2.1.3.3 Women's problems, the Poor and Disadvantageous Groups

The region faces problems of differing natures in connection with women and social gender equality, poverty and disadvantageous groups. The rates of literate females in the region (83 percent in cities and 72 percent in the rural areas) are below the nationwide average (86 percent in cities and 75 percent in the rural areas). It is seen that the educational level of females is lower than that of males and the national average in terms of any kinds of enrollment. Services extended to the poor and aged people as well as to children are not adequate.

An analysis of the disadvantageous groups in terms of income distribution reveals that there is an unequal income distribution in Turkey; this also applies for the region. The income distribution which was identified for the region as of 2003 is relatively

better than that of Turkey. As the first 20 percent slice of the population in Region TR83 has a share of 5,8 percent, the share by the fifth 20 percent slice is 46,3 percent; The Gini co-efficient is 0,40.

It is seen that the total employment in the region is below the nationwide average. However, urban unemployment rates and countryside employment rates covering smaller towns (bucaks) and villages display differences in terms of female and male workforce. As of 2000, the female unemployment rates (29 percent) in the provincial centers in the region are higher than those of males (11 percent) and above the nationwide average of 23 percent. However, the male unemployment in the region's cities is above the nationwide average (13,7 percent). As of 2000, Samsun Central District ranks first in the region with an unemployment rate of 12,44 percent. A region-wide analysis indicates higher rates of female unemployment arise parallel to migration of population employed by agriculture in the countryside to the urban areas.

The population under insurance coverage in the region accounts for 37,07 percent of the total employment as of 2000; therefore, about 62,93 percent of employment is unregistered. The ratio of the population benefiting services made available by the Pensions Fund, Bağ Kur and Social Insurance Authority to the total population is 71,87 percent. A high portion of this group faces poverty problems. An increase is observed in the number of the people receiving green cards (welfare assistance) due to increasing unemployment and decreasing income as a result of the economic crises suffered recently. The increase in the number of people, who are 65 years old or older, receiving monthly welfare assistance, is a major indicator. The share by the recipients of this assistance in the total population in the age bracket of 65+ is 35 percent in the region in 2004. In other words, it is understood that about one third of this group is in need of welfare support as they are not eligible for benefits under any security systems.

2.1.3.4 Institutional Structure and Social Organization

As the actors who will achieve the institutionalization which will shape up the development of the region, the region has local communities, public establishments and entities (central administrations and local authorities), private sector, universities and other research and development institutions, non-governmental organizations having a semi-public identity (bars, chambers, unions, trade unions, etc.) and non-profit civil society associations. Central administration is regionally represented by 4 governors' offices, 48 district governors' offices and regional directorates of DSİ, KGM and Municipalities Banks. Local authorities comprise 195 municipalities (one metropolitan municipality, 4 first level municipalities, 44 district municipalities, 146 sub-district (belde) municipalities), 2 644 village administrations and 4 special provincial administrations. The region also has chambers of trade and industry, chambers attached to TMMOB, bars, chambers of doctors, chambers of artisans and craftsmen and numerous foundations and associations. Additionally, many cooperatives and producers' unions operate regionally.

Yeşilırmak Basin Development Union established by the special provincial administrations of Çorum, Samsun and Tokat is one of the participatory platforms in the region. In addition, Kelkit Platform has been founded through participation by the governors' offices of Tokat, Erzincan, Giresun, Gümüşhane and Sivas, Tokat Gaziosmanpaşa and Sivas Cumhuriyet Universities, ÇEKÜL Foundation and some district municipalities. Kelkit Basin Development Union, established by the local administrations in this platform in 2004, now has an organizational function as a participatory organization. Groups of Local Agenda 21 in Samsun and İskilip District are two other actors for diffusion of the governance system.

The problems encountered over the efforts to ensure that regional development gains an institu-

tional structure stem from the internal compositions of the organizations of which actors are a part and difficulties over the establishment and maintenance of mutual dialogue and coordination. It is observed in connection with internal organization that public establishments and entities are unable to provide high quality services due to shortage of their specialists and technical staff and related equipment and have difficulty to adapt to the changing and diversifying conditions. The number of municipalities lacking adequate technical staff although they have surplus administrative staff is high. The region cannot attract the needed qualified and specialized workforce due to restricted living conditions and low living standards; on the contrary, the educated young population migrates to other provinces.

The responsibility areas of the regional directorates representing the central administration in the region and the boundaries of Region TR83 do not overlap and this leads to shortcomings, creating bottlenecks for regional development. Amasya and Samsun are covered by the responsibility areas of the regional centers in the province of Samsun whereas Çorum is controlled by the regional centers in the province of Ankara; Tokat is attached to the responsibility areas of the regional centers in Samsun or Sivas. The responsibility areas of the regional directorates based in Samsun also cover the provinces of Sinop and Ordu in general.

Samsun Regional Development Council (SABEKAK) is another example of participatory organization serving development. Members of the council are: governor's office of Samsun, Samsun Metropolitan Municipality, Ondokuzmayıs University, Union of Municipalities in Samsun, Samsun Chamber of Commerce and Industry, Samsun Trade Exchange, Samsun Credit Surety Cooperative, Samsun Chamber of Agriculture and Samsun Branch of the Technological and International Development Union. The SABEKAK program focuses on preparation of strategic plans, elaboration of such plans, generation and implementation of projects, addressing problems related to institutionalization of companies and development of cooperation between the universities and SMEs in line with the objective of ensuring local economic development. SABEK AŞ, established to fulfill this program, has the objective of developing regional implementation projects for Samsun and making contributions to development of workplaces by carrying out efforts on issues such as development of technologies, markets and investment infrastructure and international promotion.

Existence of professional chambers, associations, foundations and non-profit non-governmental organizations having a semi-public identity in the region is an advantage in terms of institutionalization of development and ensuring participation. There are problems in the relations of these institutions with each other as well as with the central and local authorities and the public. Powers and resources of the NGOs, particularly professional organizations, are limited and so are their services and activities. They prove inadequate to raise awareness and lead public opinions on issues and undesired developments. They are not strong enough effectively to participate in the process of implementation and supervision of decisions taken by the central and local authorities. It is of utmost importance for success of development to ensure that the existing NGOs in the region have active parts in the development process and that regional people participate in and assume responsibilities for the development process through the channels to be opened by coordination of the central and local authorities and NGOs.

2.1.4 Environmental Spatial Structure

2.1.4.1 Environment

The most prominent morphologic characteristic of Region TR83 is the rugged topography which emerges from the mountains and elevations extending in the eastern-western direction as well as from the valleys and plains which are developed through erosion by Yeşilırmak and its offshoots in the east and by Kızılırmak in the west. The region's soil properties and climatic conditions form a sensitive and fragile environment on this rugged geography. The steep slopes eroded by rivers and barren deforested soil devoid of retaining vegetation wash into the rivers as a result of precipitations and emerges as one of the biggest and commonplace problems in Region TR83. In addition, environment as the externalities of the activities such as settlement, agriculture and industry, particularly the rivers, are contaminated extremely. The failure to introduce adequate and necessary measures for preservation of the ecological environment and maintenance of biological diversity in the wetlands of Yeşilırmak and Kızılırmak as well as in those regions which are habitats for species peculiar for the region emerges as the major elements threatening the environment. In this framework, the region's major environmental problems may be classified under three headings:

i) Contaminating sources and contamination are on the rise.

ii) Region specific species are becoming extinct as a result of erosion – excessive exploitation.

iii) Failure to manage the protection areas and special regions in compliance with the norms.

Contaminations may be classified as contamination of water, soil (resulting from solid wastes and chemicals used in production of chemicals), air and noise. As indicated above, domestic wastes and liquid wastes, industrial wastes, agricultural emissions, animal husbandry activities and other pollutants are influential upon contamination of water resources.

Yeşilırmak, Kızılırmak and Kürtün Creek pouring into the Black Sea contribute to sea pollution in terms of various parameters. The failure to treat a large portion of waste water discharged into Yeşilırmak and Kızılırmak and their offshoots increases Turkey's contribution to the pollution of the Black Sea. At present, 3,4 percent of waste water discharged into the Black is let into the receiving medium after treatment as 10,4 percent and 86,2 percent are discharged into such a medium after pre-treatment and without no treatment at all, respectively. The fact that all the settlements (excluding Atakum, Ondokuzmayıs University, Terme and Bafra), particularly the City of Samsun, discharge their entire sewage directly into sea and that they store their solid wastes irregularly contributes to pollution. Only five (Çorum Central District, Samsun Atakum, Ondokuzmayıs, Bafra and Terme) of the municipalities in the region have domestic waste treatment plants. Domestic solid wastes cause a serious problem in Region TR83.

Studies on the soil contamination in the region are largely on an academic level.

Measurements in terms of air pollution are made in the provincial centers on he basis of $S0_2$ and PM. Çorum and Samsun are in the scope of the provinces of 1st Degree Pollution. Efforts have been initiated by the Environmental and Forestry Ministry for establishment an "Air Quality Monitoring Network" and it is scheduled to build measurement stations in the cities of Çorum and Samsun.

Measurements made in connection with noise pollution in the region are inadequate. In particular, noise measurements in the cities of Çorum and Tokat are negligibly low.

Excessive cutting made in the forests is a serious environmental problem for Region TR83. Erosion

is one of the most important problems in those forest areas which are deforested. Erosion is of extreme dimensions compared with other river basins.

In the region, there are deltas of Yeşilırmak and Kızılırmak, which are Turkey's major wetlands. Kızılırmak Delta is a Ramsar Preservation Area. This region is one of the regions contributing to Turkey's flora richness significantly. The number of species is 3 957 and the number of endemic species out of these species is 475. More than one third of the endemic plants, which is 30,9 percent of the nationwide figure is in this region.

The factors threatening the species and population of the plants are: excessive grazing, forest (wild) fires, construction of buildings and roads, cutting down trees/forests, taking sand away from sea coasts and other similar elements. Unconscious and excessive consumption lead to deterioration of the nutrient chains in the water based system, causing an increase in the receptive biomass in such a manner upsetting the balance in the system.

In respect of fauna, in the region, according to the European Red List, the species and sub-species of 6 amphibians species, 9 reptilians, 20 birds and 40 mammals have been identified and according to the Bern Convention Annex II, the species and sub-species of 11 dual life creatures, 31 reptilians, 513 birds and 47 mammals have been identified. According to Decision Annex II of the Central Hunting Commission (MAK), the species under protection do not cover dual life creatures, reptilians and mammals and the number of bird species under protection is 681. As is the case for flora, MAK must adopt decisions quickly for dual life creatures, reptilians and mammals which are endangered by many different factors and must be protected for continuation of their species (the most comprehensive protection list in 4 provinces relates to this group).

Because environmental problems have very large impact, they are considered one of the important dimensions of the region plan. Although the region has the problems summarized above in terms of environment, deteriorations and losses have not yet reached an irreparable stage. Losses and pollutions may be reduced and environmental values may be recovered in some cases through meticulous implementation of the regional plan and environmental policies. Declaration of Kızılırmak Delta as Ramser Area, publication of the Regulation on the Protection of Wetlands and existence of a Biology Department in Ondokuzmayıs University as well as availability of R & D capabilities as a result must be evaluated as a positive opportunity in terms of flora, fauna and aquatic creatures for the region.

2.1.4.2 Spatial Structure

2.1.4.2.1 Urbanization

There are 5 levels in the regional settlement system. Samsun having the metropolitan characteristics is the center of Level 5. Samsun is a regional center in terms of the functions it has and its port is a gate of the region to the world. Amasya, Çorum, Tokat and Merzifon are the center of Level 4 as Bafra is the center of Level 4. The other district centers in the region have a function as the center of Level 3 (Figure 2.1.4.1-a).

The region's urbanization level is below the nationwide average; when settlements having a population of more than 20 000 are defined as cities, the urbanization rate is 43,6 percent in the region in 2000 versus the nationwide average of 59,3 percent. As is the case for the entire country, the region has embarked upon an urbanization process which has picked up after 1950. In this process, as the regional countryside gave out-migration to the regional cities as well as to the major cities of a national scale, the regional cities also gave out migration to the major cities which are thought to provide relatively better and diver-

sified employment opportunities, living and cultural conditions and urban standards. The regional centers failing to achieve adequate development in the industrial sector and develop employment opportunities adequately are now in a position to attract any further out-migration in the countryside in their hinterlands. The regional urbanization rate remained between 2 to 3 percent versus an urbanization rate of 6 to 8 percent on a nationwide basis after 1950.

There are 17 urban centers with a population of 20 000 in the region. On the Black Sea coastal section, Bafra, Samsun, Çarşamba and Terme form an urban region/corridor and this corridor extends towards the east. Forty percent of the urban population in Region TR83 is in this corridor. Tekkeköy defined as the settlement in the urbanization process, which is a suburb of Samsun, is in this corridor. However, an important feature of the settlement structure in the region is that the urbanization rate cannot taken on a distinctive direction inside the region. From this viewpoint, there is no differentiation according to the groups of urban sizes and this also applies for the hinterlands.

Samsun accommodating the largest urban population in the region may be defined as a metropolitan city. Samsun having the characteristics of a center for Level 5 is a center of services and supervision on a regional and supra-regional scale thanks to the functions it offers. Due to the significant developments it has achieved in the manufacturing industry, the city may be defined as an industrial hub as well. Figure 2.1.4.1-a provides the region's morphologic structure and the functions of the cities.

The city of Çorum bears the characteristics as a center for Level 4 and it is a services center on a sub-regional scale. The city has achieved an industrialization process which may be named the "Çorum Model." Under this model, industrialization has initially started on smaller scales depending on local resources (food and stone – earth industries); at the second stage, it continued expansion by producing machinery and equipment for these industries and at the final stage, it further expanded thanks to industries, which can operate in the national markets, even including international markets, in the fields of new production lines, without dependence on local resources (and allowing selection of sites anywhere in the country). It is thought that the city of Çorum is an industrial hub which can ensure local development in the region and that the city has such characteristics which may enable it to link to the outside world thanks to this potential.

The city of Tokat is a services center of a sub-regional scale, which has the characteristics of a center for Level 4. In the city, industries especially based on agriculture have developed under the influence of public industry investments. However, the developments observed in the city's manufacturing industry indicate that the city is on the way to becoming a hub of the manufacturing industry.

The city of Amasya is a services center of a sub-regional scale, which has the characteristics of a center for Level 4. The city has failed to achieve the success it had in the development of the services sector in the industrial sector. However, the city has managed to protect the urban cultural and historical fabrics and the fact that it has successfully maintained the functionality of these values in space in an integral manner along with their complementary elements makes one think that the city has developed a peculiar development model. Amasya advances in the development process as a city of culture and tourism.

Although it is a district center, **the city of Merzifon** has the functions of a center for Level 4. Its location on the crossroads of Ankara – Samsun Highway and Istanbul – Erzincan Highway increases the city's accessibility. Historically, Merzifon has benefited its location on a crossroads. It is observed that the city enjoys active local entrepreneurship and quests for development in the manufacturing industry.

The city of Bafra, which is a Level 4 Center as far as the region's cities are concerned, and Çarşamba, Turhal, Erbaa, Suluova and Osmancık, which are Level 3 centers, may be defined as industrial hubs based on agriculture. On the other hand, the cities of Sungurlu, Alaca, Zile and Niksar have made progress on the way to agro-industrial hubs.

The leveling studies made to update the regional levels and their impact areas indicate that there is a relationship structure having single directional and hierarchical characteristics between the regional settlements (Figure 2.1.4.1-b).

2.1.4.2.2 Rural Settlements

According to the results of the 2000 Census, Region TR83 has 2 832 settlements and 93,3 percent of these settlements have a status as a village. The population of 69,5 percent of the regional villages is below 500. The average population of the villages inside or at the edges of forests, which account for 76,2 percent of the regional villages, is 436. However, this value is 436 for the non-forest villages. As 12 percent of the regional population lives in Samsun, which may be described as the regional metropolis, the population living in four provincial centers including Samsun accounts for about one fourth of the regional population. On the other hand, a population slightly higher than half of the rural population lives in the forest villages which account for more than three fourth of the villages. These are the very villages which account for those areas having highest population losses due to out-migration from the countryside.

A higher rural population and the forest villages enjoying a control of this population make it more important to extend services to such areas. In addition to the Rural Affairs General Directorate[1],which continued extending services to all of the rural areas until the date of the transfer of its powers and duties, ORKÖY General Directorate attached to the Environmental and Forestry Ministry also maintains works addressing the forest villages. Many projects (units) have been prepared in connection with the implementation areas envisaged by "the Plans for Development of Forest Villages," which began being prepared from 1974 on a district basis throughout Turkey for the purpose of developing the forest villages. Such forest village development plans have been prepared for the districts in Region TR83 as well since 1974 and

Table 2.1.4.1 Region TR83 Settlement Structure, 2000

		Settlements	No	Population	Average settlement size	Breakdown of No of Settlements (percent)	Population breakdown (percent)
Province and district centers	Urban settlements with a population of more than 20 000	Level 5 Center (Regional Metropolis Samsun)	1	363 180	363 180	0,0	12,1
		Level 4 Centers (Amasya, Çorum, Tokat and Merzifon)	4	348 814	87 204	0,1	11,6
		Level 3 Centers (Turhal, Bafra, Zile, Çarşamba, Erbaa, Niksar, Suluova, Sungurlu, Osmancık, Terme, Alaca and Vezirköprü)	12	596 895	49 741	0,4	19,9
		Urban Total	***17***	***1 308 889***	***76 993***	0,6	***43,6***
	Level 3 centers with a population of less than 20 000		31	236 645	7 634	1,1	7,9
	Total, provincial and district centers		**48**	**1 545 534**	**32 199**	1,7	**51,5**
Subdistricts and villages	Forests located inside or at the outskirts of forests		2 015	879 482	436	71,1	29,3
	Non-forest villages		769	574 444	747	27,2	19,2
	Total, sub-districts and villages		**2 784**	**1 453 926**	**522**	98,3	**48,5**
Settlements Total			2 832	2 999 460	1 059	100,0	100,0

Source: DİE (2002-3), DİE (2002-4), DİE (2002-5), DİE (2002-6).

1 The Rural Affairs General Directorate has been closed down pursuant to Law No 5286 on the abolishment of the Rural Affairs General Directorate and the law amending certain laws.

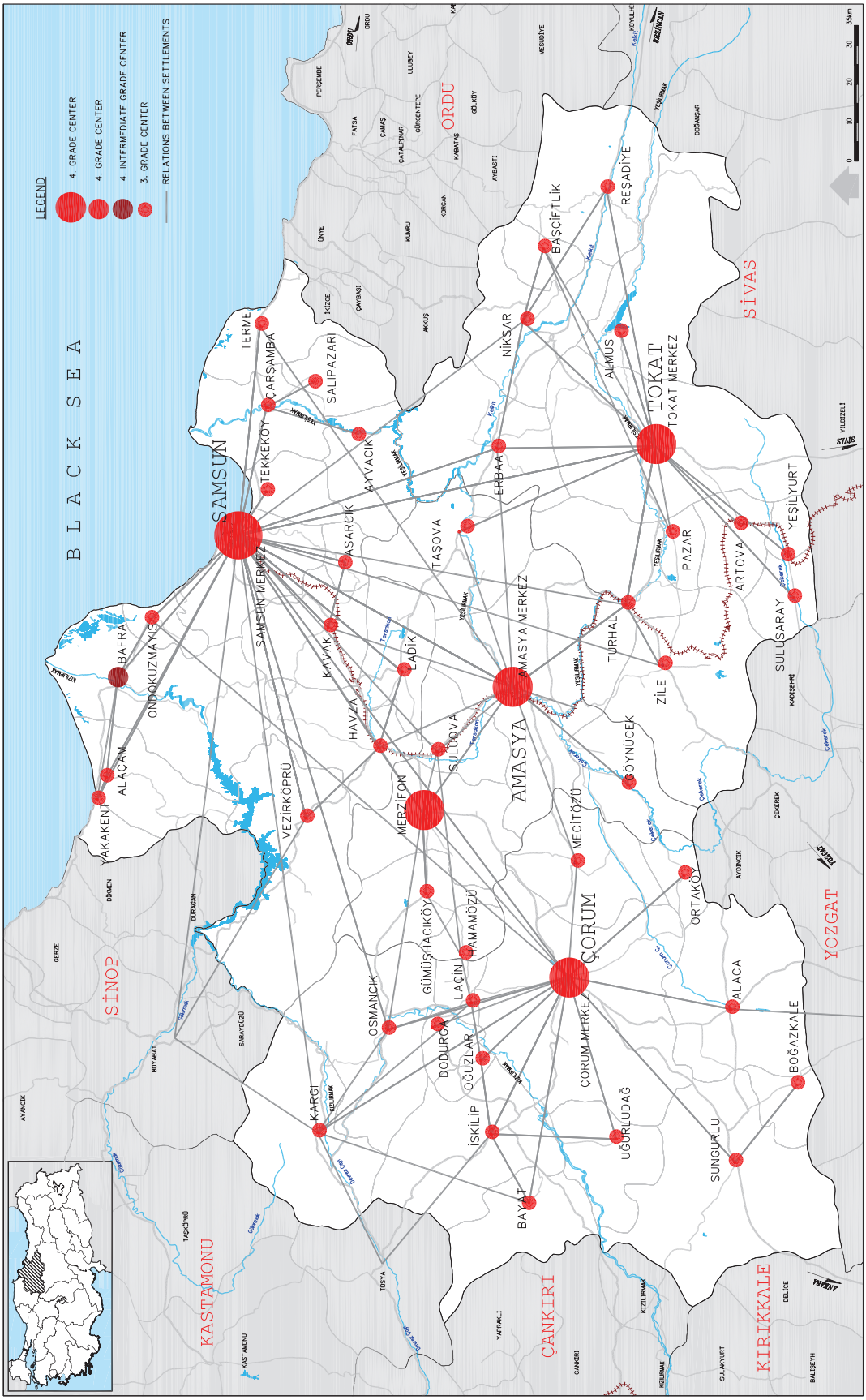


Figure 2.1.4.1-b Existing Relational Structure

Source: Dolsar (2004-11).

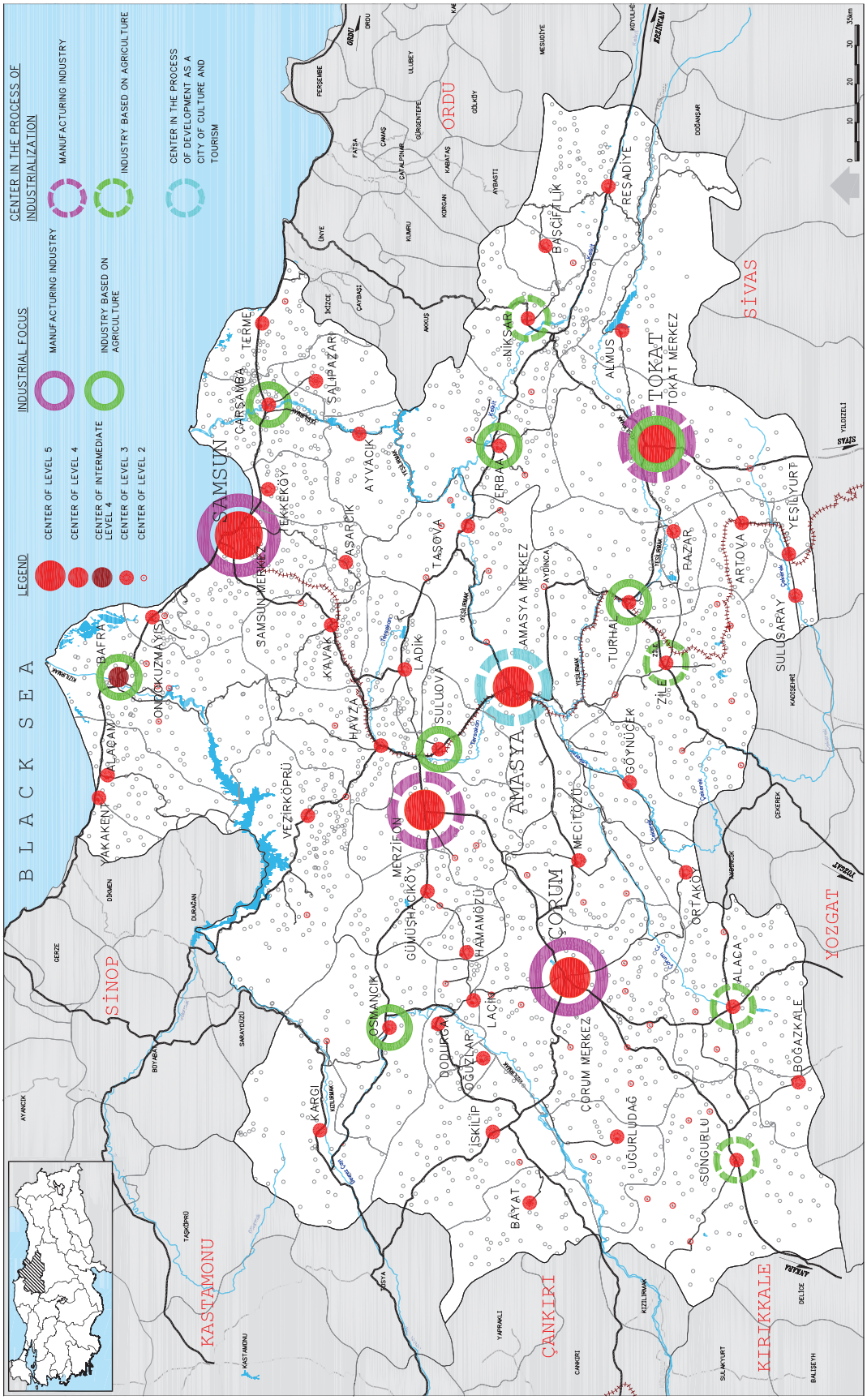


Figure 2.1.4.1-a Existing Morphologic Structure and Functions

although they have been revised periodically, it may not be concluded that the benefits expected of such projects for rural development could be attained. The resources at a rate of 1 per thousand envisaged to be transferred from the budget for ORKÖY practices pursuant to law could not be regularly transferred. Many projects which are not proportionate to the allocated funds could not be realized; as for those having the chance of realization could not be supervised because adequate mechanisms were not in place and therefore, it was not possible to monitor results so that they could provide guidance over next/similar practices. In the last 20 years, although 178 077 units of job were started, implementation was limited only to 9 424 units and thus, the implementation rate remained at 5,3 percent. An evaluation was made only about apiculture as far as these units are concerned but the results thereof could not be reflected on the implementations.

Three separate sub-regions may be defined in terms of the rural population density in Region TR83. The first sub-region covers Yakakent, which extends along the Black Sea coastal strip, Bafra Plain, the rural part of Samsun Central District, Çarşamba Plain and Terme rural areas; this is the area with the highest rural population density (higher than 0,6 person/ha) (Figure 2.1.4.2: Region I).

The second sub-region having medium population density (0,2 – 0,4 person / ha) consists of two different areas. The first area starts in the District of Vezirköprü in the northwest, which is located in the south of the coastal region, covers Havza, Kavak, Taşova, Erbaa and Niksar rural areas and comes to an end after including the rural areas of Başçiftlik and Reşadiye in the south east. Due to its topography and natural conditions, this corridor is not suitable for agriculture, excluding the settlement plains extending along Yeşilırmak and the average village population is low there (Figure 2.1.4.2: Region II). The second area covers the central parts of the region. This area covers Zile, Amasya Center, Çorum Central District, Suluova and Merzifon. Rural settlement density is low there as this region has limited irrigation means (Figure 2.1.4.1: Region II).

The third sub-region having the lowest rural population density (less than 0,2 person/ha) extends in the east – west axis in the central part of the region. This region, which has plenty of forest areas and mountainous sections, starts in Vezirköprü and extends as far as Başçiftlik. It is seen that the scattered rural settlement pattern creates problems over provision of services there, preventing some locations from benefiting from services (Figure 2.1.4.2: Region III).

2.1.4.2.3 Sub-regions

It is possible to define different sub-regions for different objectives by using different criteria. It is possible to determine physical geographic sub-regions by considering the region's natural geography, land resources, characteristics and use; determine functional sub-regions formed by leveled structure by considering the settlement leveling; and determine sub-regions of concentration by sector by considering the fields of activities having concentration.

Natural geography and land resources of the region and their characteristics and utilization:

Registered forest areas and areas subject to severe erosion, which largely overlap these areas, are one of the basic determinants in terms of current land resources. They are the secondary determinant agricultural areas and they are evaluated under two main groups as areas where irrigated agriculture is carried out or there are irrigation projects and areas where dry agriculture is carried out (Figure 2.1.4.3-a).

The registered forest areas and areas subject to severe erosion define an elevation belt, which originates in Canik Mountains in the north of Kelkit Valley in the east and extends as far as the re-

gional boundaries of the Districts of Alaçam and Yakakent in the northeastern direction and covers the Western part of the region from the north of Vezirköprü as well as an area up to the District of Bayat and Kızılırmak Valley irrigations. A high number of high plateaus and recreational spots on these elevations offer opportunities for nature tourism.

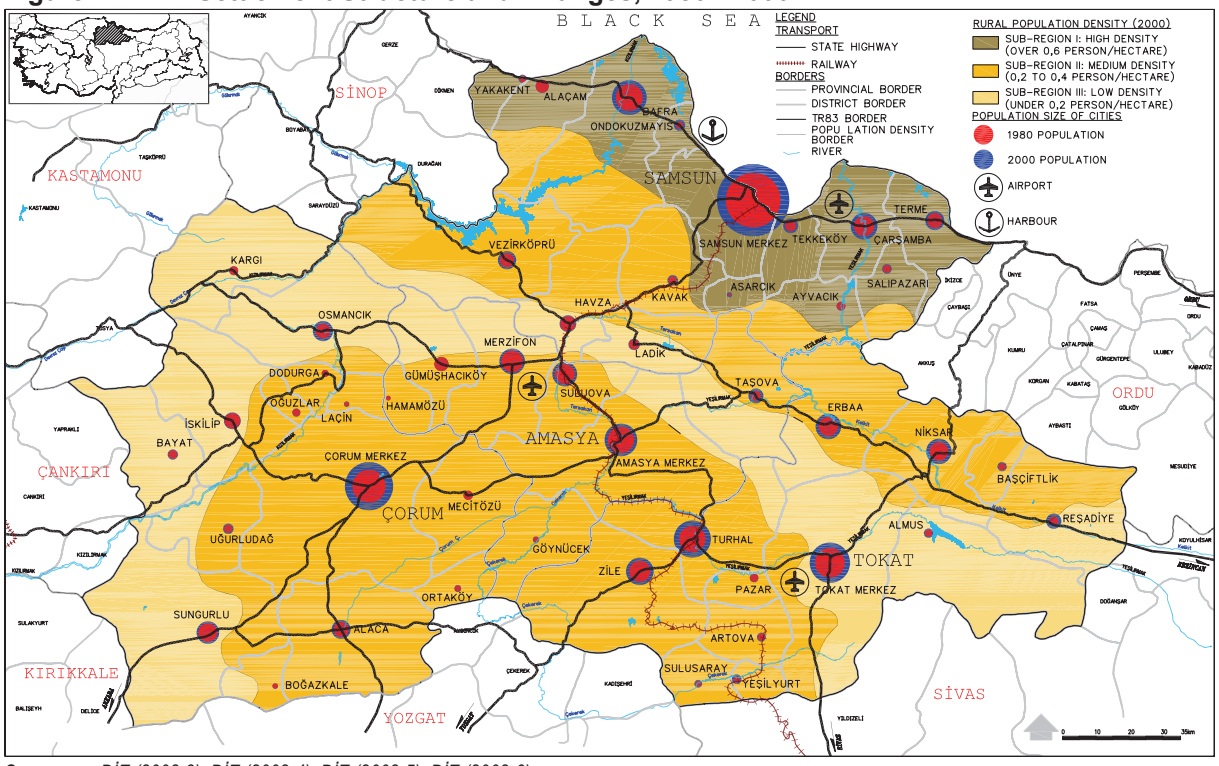
There is another elevation belt of similar characteristics, which extends in the axis of Tokat and Ladik in the south of Kelkit Valley and is formed by forest areas and elevations (Range of the Mountains of Develi, Sakarat and Karaömer) exposed to severe erosion and interrupted by Yeşilırmak between Almus and Tokat.

The common feature of these two belts is that a significant part is covered by forest which is deteriorated or qualified, that their elevation is above the regional average, that they are one of the areas where the eco-system and nature are the most fragile and that they have a significant portion of the groups of villages which are either inside or at the outskirts of forests on this belt, where the segments of the regional population with the lowest income bracket live.

Çorum Plateau located in the southwest of the region is bordered by Osmancık, Gümüşhacıköy and Merzifon in the north and by the axis of Amasya, Göynücek and Ortaköy in the east, defining a geographic region formed by the areas where dry agriculture is basically dominant.

Between the elevations formed by the Çorum Plateau and the Develi Mountain Range, Sakarat and Karaömer, it is possible to define a geographic region, which is transformed into a fragmented structure by Yeşilırmak, Çekerek and Çorum Çayı in the south and covers the areas between Tersakan and Kızılırmak in the northwest and which has a significant portion of present or planned irrigation areas. This region extends as

Figure 2.1.4.2 Settlement Structure and Changes, 1980 - 2000



Source: *DİE (2002-3), DİE (2002-4), DİE (2002-5), DİE (2002-6).*

far as Merzifon and Gümüşhacıköy in the north and Osmancık in the northwest. This region joins the vicinity of Ladik and Havza with a corridor extending via Niksar, Erbaa and Taşova along Kelkit Valley in the east. The basic feature of this region is that it is composed of valleys and plains formed by rivers as well as by areas already irrigated or having potential for irrigation.

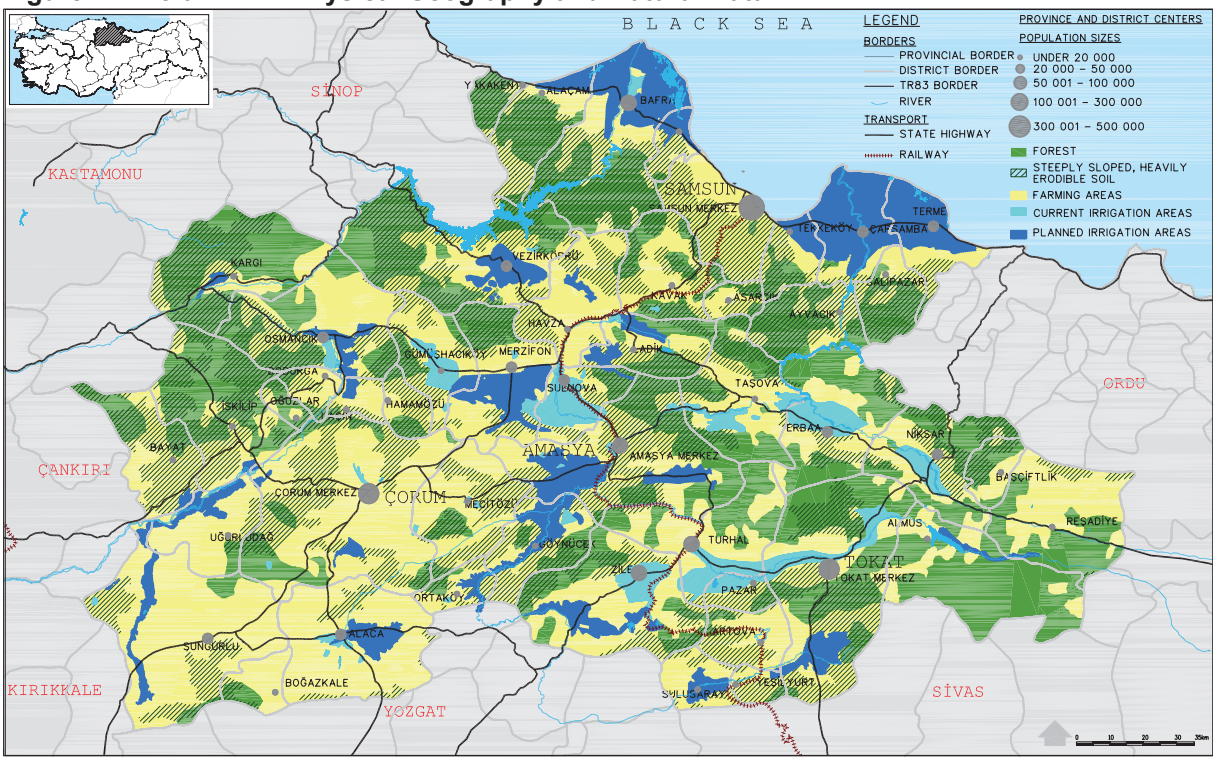
The coastal strip of Bafra, Samsun and Çarşamba, which is located between Canik Mountains and the coastal mountains extending parallel to the sea further in the west and the Black Sea emerges yet another geographic region. This region consists of the deltas of the country's two significant rivers and wetlands on these deltas and at the same time, it has the feature as the region where the population is densest in TR83. This region is an area where agricultural production is made intensively and export oriented production would concentrate in the future.

The sub-regions determined by the physical geography are illustrated by 2.1.4.3-b by abstracting them.

Settlement leveling (formation of functional sub-regions)

Formation of sub-regions depends on topography, on the transport system largely defined by this and on the economies of transport and necessary minimum demands so that activities can emerge in a given space, namely the necessary demand thresholds to be met. A leveled settlement system is formed in space depending on them. Central activities meeting the demand by the respective settlement emerge in the settlement units having the lowest levels. The sub-regions of this lowest level is comprised of spaces not containing any other settlements or settlements such as quarters and village sub-districts and agricultural areas. The demand thresholds in the centers of secondary levels, which are specific for such thresholds are higher than the demand thresholds of the activities of the first level centers. The second level centers

Figure 2.1.4.3-a Physical Geography and Natural Data



offers the services or products of these activities having higher demand thresholds to their own central population or to the sub-regions made up of the first level centers. The third, fourth and fifth level centers accommodate activities for which demand thresholds cannot be overshot at the second, third and forth levels, respectively. Each level center has lower centers and an impact area or sub-region created by their impact areas.

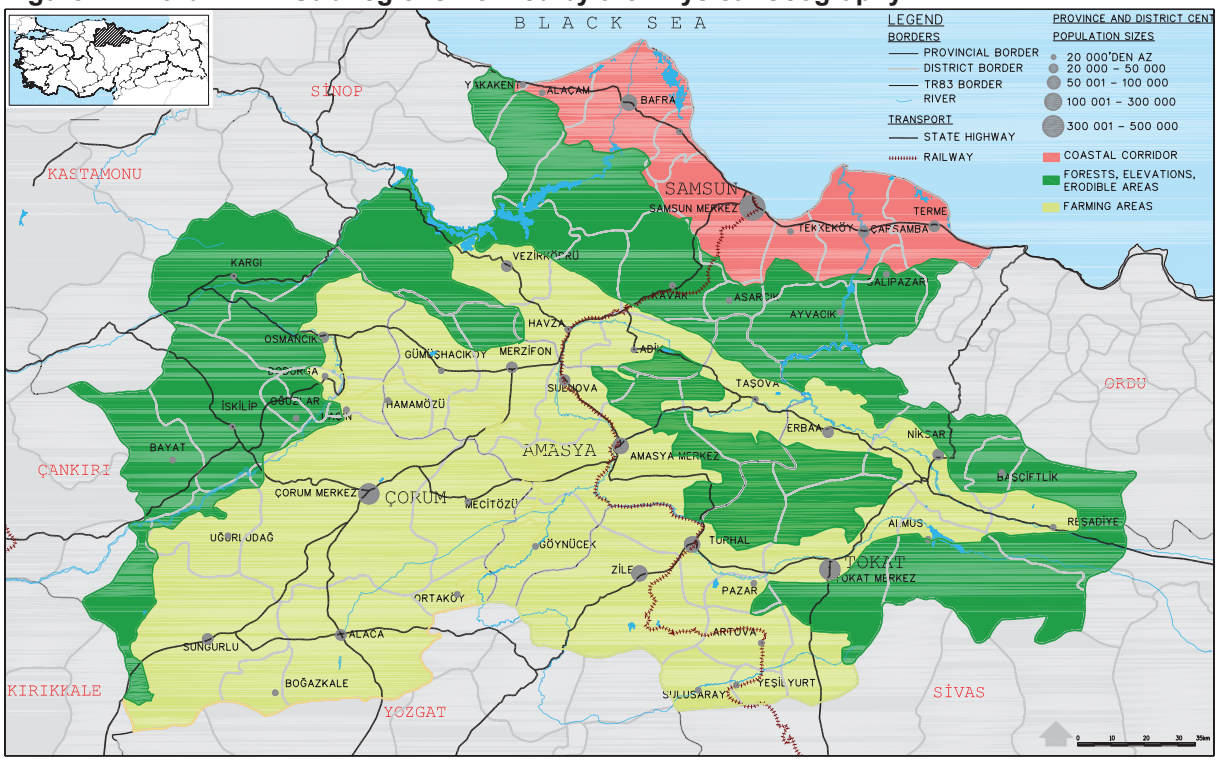
Since management is a service, management leveling is one of the influential factors over formation of the level and impact area of a center.

The region has 5 functional levels and four hinterland systems consequently. Samsun is at the fifth level and it is the only center at this level. This level impact area of Samsun, which has an identity as a regional center, covers the province of Sinop in the west and Provinces of Ordu (partially) and Giresun in the east, apart from the province of Çorum (excluding Osmancık) and the entire Yeşilırmak Basin Development Project area located in the south of the province of Tokat. Since an upper level center also accommodates the activities of a lower level center, Samsun also has a forth level sub-region and its boundaries covers the districts of Ayvacık, Asarcık, Ladik, Havza and Vezirköprü in the South.

Amasya, Çorum, Merzifon and Tokat are the other fourth level centers in the region. The fourth level centers excluding Merzifon are the provincial centers at the same time. The fourth level centers can be defined as the sub-regional centers. Figure 2.1.4.3-c illustrates these sub-regional – fourth level – centers and their sub-regions and impact areas. The fourth level sub-regional centers will accommodate activities such as wholesaling, inter-regional transport, higher education and specialized health services, which are not available in the lower level centers.

All the district centers not having any fourth level centers in the region are third level centers. They offer certain services such as retailing, secondary

Figure 2.1.4.3-b Sub-regions Defined by the Physical Geography



education and health care to their sub-regions. Second level centers are rural centers and they offer services such as primary education, first level health, limited retailing and some repairs to their sub-regions.

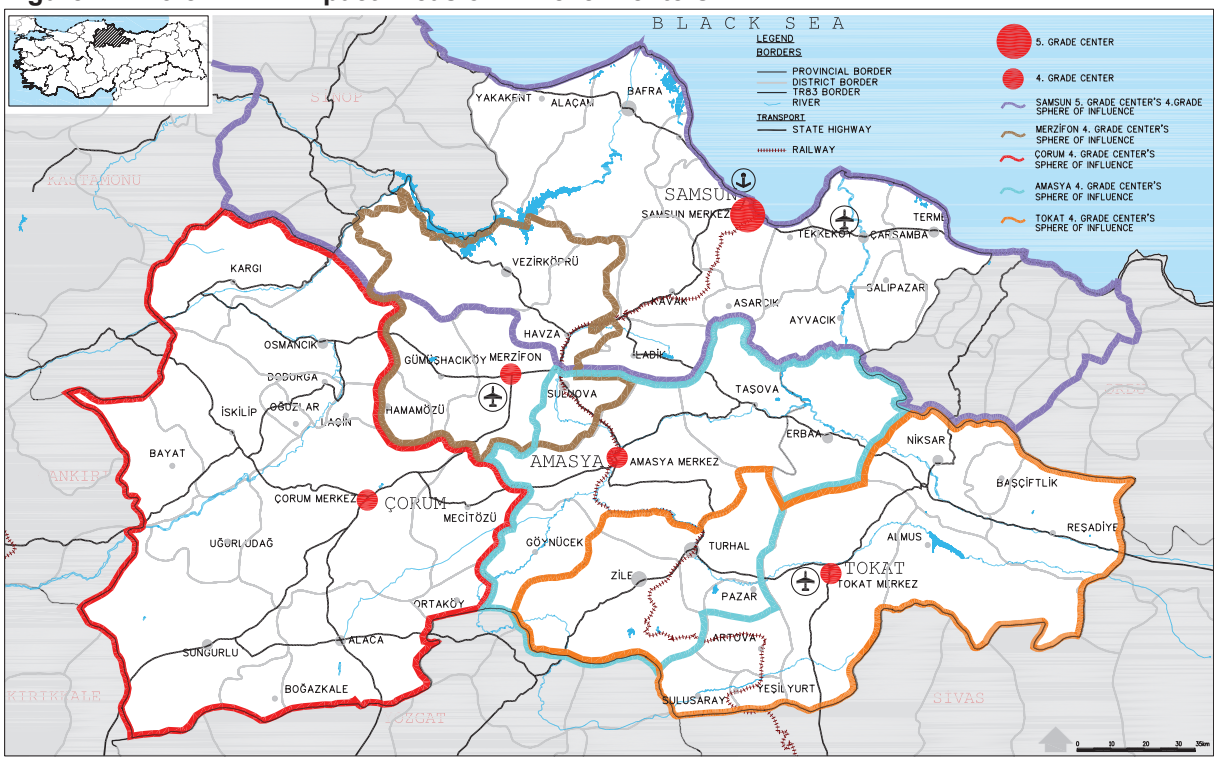
The central places, namely spatial leveling system, is a fact that changes very slowly. This is because topography, which is a basic factor in determination of the system, transport channels determined by topography to some extent and finally agricultural land resources, which have a decisive part over the emergence of second and third level centers in particular, are the data which do not change over time or change marginally, except for the transport system. The system has a historical moment. The regional leveling system is almost same as the system 30 years ago except for some minor changes. However, parallel to improvement of transport infrastructure, many second level centers have begun losing their weight over provision of services in favor of upper level centers.

Concentrations by sector:

It is possible to make another classification depending on the areas of activities which have agglomerations on the same geography, in addition to the functional sub-regional definitions developed on the basis of the relationships between the geographic structure and spatial organization. However, classification would be of a nature depending on the urban characteristics because such a classification would depend on the functions accommodated by the cities to a larger extent. A classification of the areas into those industrial and agro industrial cities and those tourist settlements which have leading positions due to their historical, cultural and natural values in respect of Region TR83 (Figure 2.1.4.4-a).

The logic over the rise of industrial cities is different from the logic determining the system of central places in some respects. Rise of industries in a given location depends on feedstock, markets, transport means, availability of workforce and

Figure 2.1.4.3-c Impact Areas of 4th Level Centers



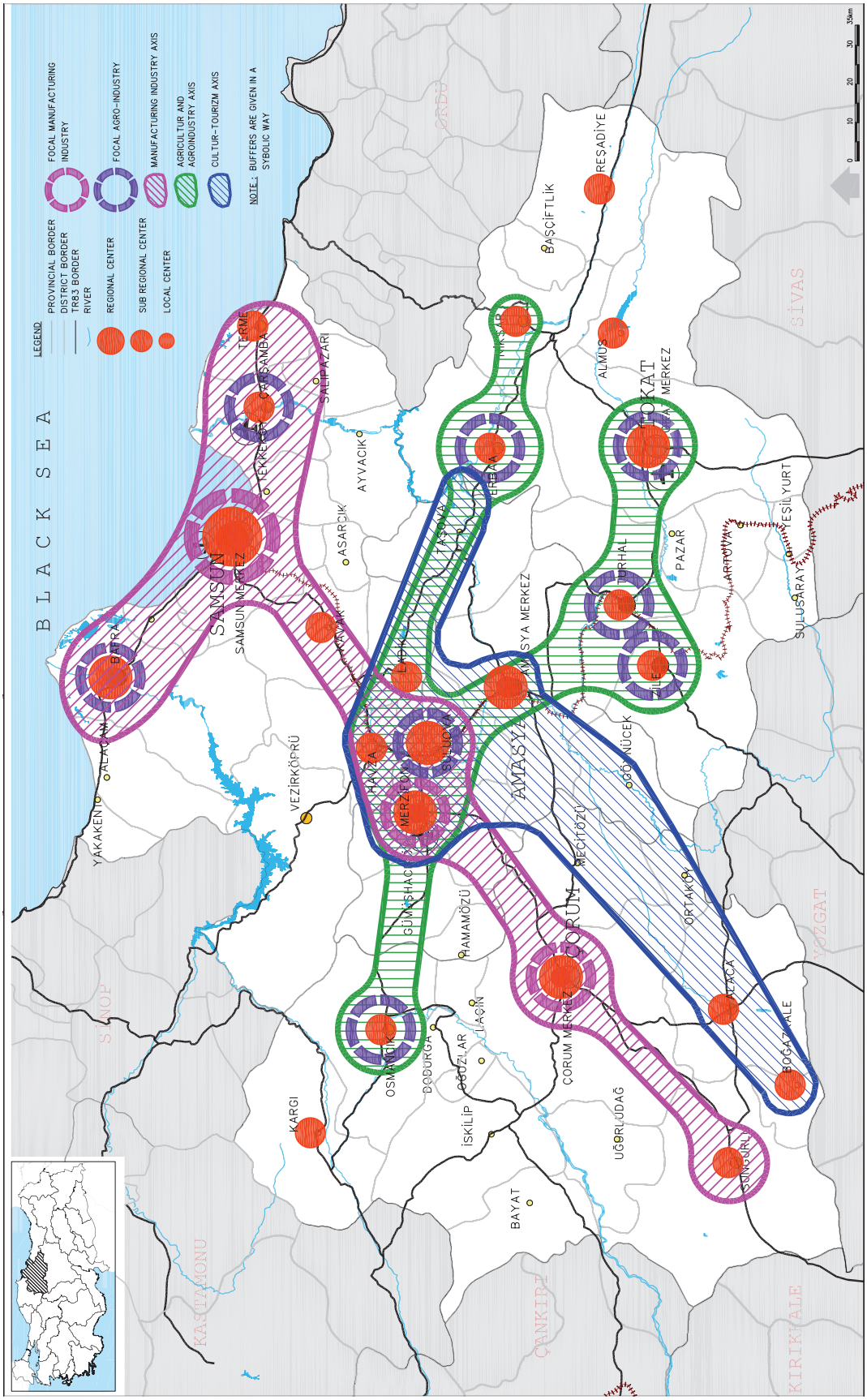
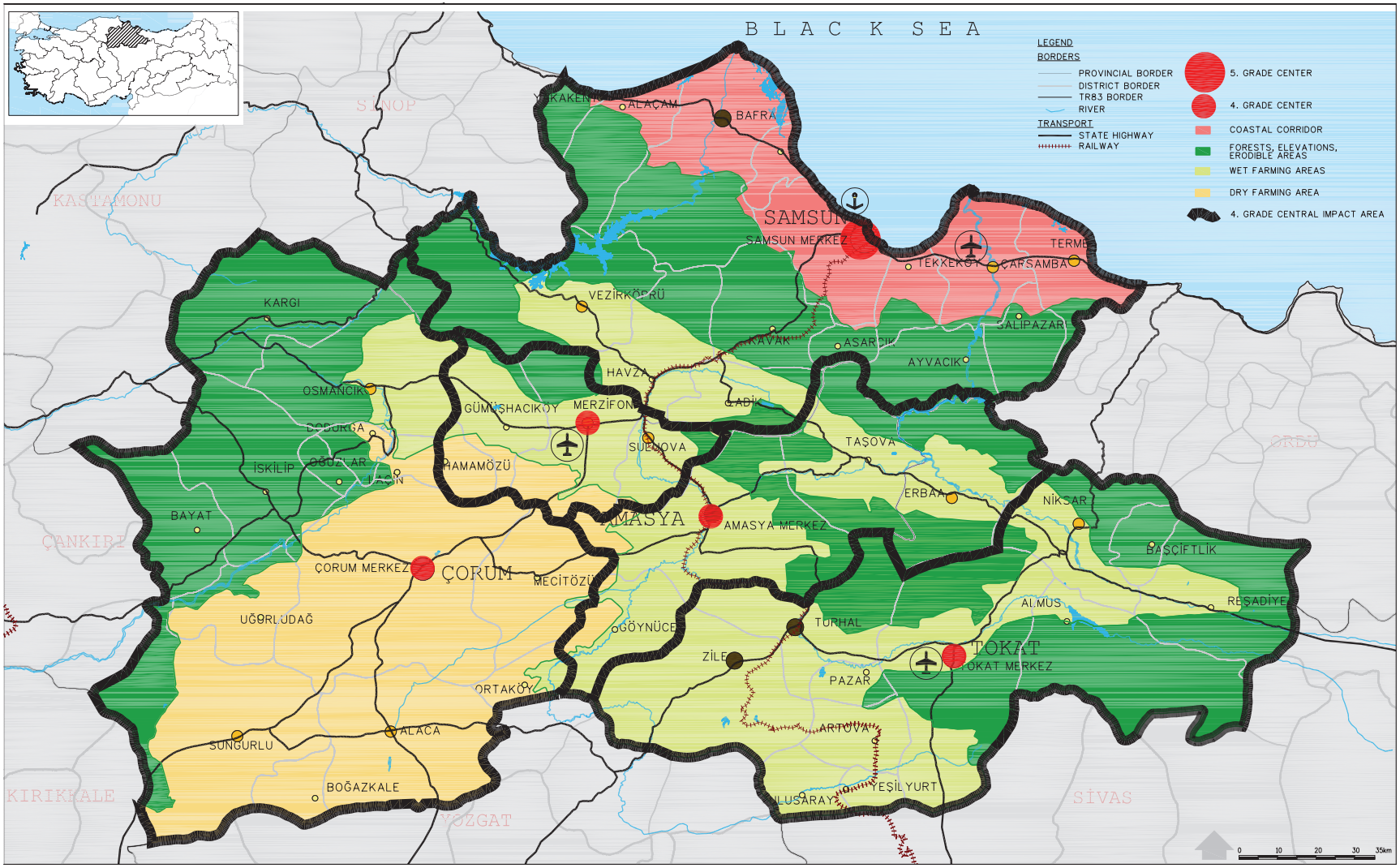


Figure 2.1.4.4-b Concentration Corridors

Figure 2.1.4.4-a Physical and Functional Sub-regions



workforce costs, entrepreneurs' ability to perceive opportunities and positive and negative external economies earlier created by the activities there. In addition, the position of industries in a certain location is cumulative; namely, the stationing of an enterprise at a location is a signal for potential investors that other similar enterprises could also station there. If other entrepreneurs station their activities in that center by heeding that signal, this leads to external economies and industries continue growing there as long as positive externalities are higher than negative externalities and technologies, supplies, markets and competitive conditions do not change much.

The position of industries and the system of central locations have mutual interaction. There is a certain population and demand created by that population for certain industrial goods in a center of any level and its sub regions. If that center does not impose any restrictions in view of feedstock supplies and necessary workforce and potential entrepreneurs are able to perceive the opportunities offered by demand, industries then emerge in that center to meet such a demand. Because the demand arising out of the sub-region of a center for certain industrial goods increases parallel to the rise in the center's level, there is a higher probability for enterprises to be positioned in that center to meet such a sub-regional demand. In addition, because every upper level center accommodates a more varied range of activities and there are more external or agglomeration economies for this reason, it offers relatively larger potential to lower level centers for positioning of enterprises to meet both sub-regional and extra-regional demand.

On the other hand, it is necessary that a given sub-region or center must have availability or production of relevant feedstock so that industries based on such feedstock can be positioned there. Locations offering similar feedstock supply opportunities may form a corridor or area where enterprises based on such feedstock are positioned or would be positioned potentially.

When the cities with the same characteristics in the region are marked on a map in this framework, two industrial areas (buffers) named T and Y emerge.

The first area starts in Sungurlu on the Ankara – Samsun transport channel, accommodates Çorum, which a center of weight, encompasses Merzifon and also covers Samsun, which forms the top of T, Çarşamba in the east of Samsun and Bafra in the west. The three level centers in the region – Çorum, Merzifon and Bafra – and Samsun, the regional center, are the centers in this area. These centers are the manufacturing industry centers other than agro industries.

The other area with the shape of Y starts in Osmancık in the west, intersects the T shaped corridor encircling Merzifon, divides into two by forking in the east of Merzifon, with one of the tips of the fork covering Turhal and Tokat and the other tip, Taşova, Erbaa and Niksar in Kelkit Valley. This area covers agro industries. Almost all of the present irrigation areas in the region are around these centers.

It is highly probable for these industries to concentrate in these centers thanks to their location on the major transport axes, commencement of formation of economies of agglomeration in certain centers and proximity of the regional industries to agricultural products processed by them. However, the transport channels of these centers in the western direction must be improved, local infrastructure problems solved and infrastructure of higher standards be provided so that these centers could be more successful.

A tourism area covering Amasya – Göynücek, Alaca and Boğazkale may be defined in terms of the regional historical and cultural values. This areas extends as far as Taşova via Merzifon and Ladik in the northeast. Although resources and assets, which can be used for tourism with historical, cultural and springs themes, are intensive, the

axis of Ladik and Taşova is also rich in terms of means for nature tourism.

Forest sub-regions and dry agriculture and irrigated agriculture sub-regions may be defined as part of investments and public services addressing the rural areas and these public services may be concentrated in, for instance, those functional centers, where the dissemination organization can offer such services most effectively, which can extend optimum services to such agricultural sub regions in the spatial leveling.

Because the spatially functional region and sub-region structuring reflects geographic, agricultural and economic conditions to a large extent, it is a requirement of economic logicality to take as a basis the functional centers and their hinterlands in planning the provision of any kinds of infrastructure and services.

2.1.4.2.4 Housing

Although there is a sufficient number of housing units in the regional cities, a larger portion of shanty development in the stock composition, characterization of the cities largely by unqualified living spaces lacking quality and social and technical amenities and higher disaster risks faced by the cities apparently indicate that the region has quantitative housing problems. The exclusion of mechanisms in plans and housing policies, which would ensure revamping and transformation of the areas already developed, causes these problems to remain unaddressed.

2.1.4.2.5 Urban and Rural Infrastructure

Municipalities use surface water and ground water at rates of 26 percent and 72 percent as source of supply of drinking – service water, respectively. In settlements lacking any municipal organizations, ground water resources are made use of from 1 367 drilling wells owned by DSİ (extracted volume is 210,0 hm^3/year) and 308 drilling wells owned by KHGM (extracted volume is 28,2 million hm^3/year). Dependence on ground water clearly demonstrates significance of the need for protection against contamination of ground water. DSİ has built a potable water supply system for Samsun Metropolitan City, Çorum and Ondokuzmayıs University to supply water to those settlements having no municipal organization.

In respect to administrative structure concerning water supplies, 35 percent and 65 percent of the regional population are controlled by KHGM and municipalities, respectively. Eighty five percent of the population living in the settlements with no municipal organization obtain drinking – service water from the network. The 14 percent population lacking such a network obtain drinking water from wells, springs, fountains and local fountains.

Adequate supplies of drinking water are made by KHGM to 90 percent (2 644 villages and a population of 1 050 875) of the rural population in the region. This rate is 85 percent on a nationwide basis. The target of leaving no villages without water supply has been attained in the provinces of Tokat and Çorum while there has been failure in Samsun due to the scattered distribution of the settlements. 51 percent of the villages have water supply Networks as 44 percent supply water from fountains; 5 percent lacks any supplies of water. Sewerage Networks provide services to 88 percent of the population in 133 sub-districts (beldes) having municipalities. Only five municipalities, of which four are in Samsun (Samsun, Ondokuzmayıs, Bafra and Terme) and one, in Çorum, have water treatment plants.

The region produced a volume of electricity almost double its production volume from the hydro-electric power plants in 2004. When the volume of failures on the medium voltage lines and outage periods are taken into consideration, the regional rate of failures per transformer is 1,56. This rate is highest in Samsun (2,07) and lowest in Çorum (0,47). The number of outages is higher in Samsun

which also suffers longer outages.

Use of natural gas has been gradually introduced in Samsun and Çorum in the region. Tender procedures have been conducted for natural gas distribution in Tokat and Amasya.

Communication infrastructure has been made available in 90 percent of the region. All the telephone switchboards are digital. In communication, long network transmission lines are interconnected with fiber optic cables over a ring. 75 percent and 25 percent of the communication infrastructure are made up by overhead lines and underground lines in the rural and urban areas, respectively. The sector suffers a very intensive rate of failure as is the case in energy.

Like the nationwide case, communication by mobile telephones has had considerable development in the region as well.

There are 3 mobile telephone operators and their related infrastructure in the region. The number of licensed providers of Internet services has reached 109 in the region. An ADSL system started to be introduced in 2002 and there is a growing demand for the system as it provides faster communication.

2.1.4.2.6 Transport

The regional traffic on the basis of road sections concentrates on the Ankara – Samsun Highway, which intersects in Merzifon, and on Karabük – Erzurum direction. The highest value in terms of traffic takes place around Samsun Metropolitan Area because it also involves urban traffic.

The highest share in the cargo loaded on the trucks traveling on the highways is claimed by agricultural products (16,9 percent) and construction materials (16,5 percent). These products are followed by foodstuffs and mixed goods. The top points of departure for cargo are Samsun and Çorum. Major destinations are Samsun, Çorum, Tokat and Amasya in this order of precedence.

Use of railways is quite low because their connections to the West in particular are weak. Iron ore accounts for more than half of the railway cargo in the region (62 percent). Other cargos having largest transport volumes are: construction materials (13 percent) and foodstuffs (11 percent). Samsun, Turhal and Amasya are the points of departure for cargo transport by railway. The destination is Sivas. At this point, the Samsun line joins the nationwide network.

Samsun Port is one of Turkey's leading ports in the Black Sea region, which enjoys the highest functional characteristics in terms of infrastructure and equipment capacity as well as relevant hinterlands. The port offers an ideal environment for combined transport as it has road and railway links. 2 380 000 tons of cargo are handled annually. The port's pier length is 1 756 meters. It has an annual reception capacity of 1 130 ships. It can handle 972 mixed cargo ships and 158 bulk cargo ships. The port has terminals for systems of ferries, Ro – Ro lines and trains. Ro – Ro services, which were for three separate destinations from Samsun in the past presently operate between Samsun and Novorossisk only.

Samsun – Çarşamba and Tokat have the two civilian airports in the region; Samsun – Çarşamba Airport was put into service in 1998. Its capacity is 26 280 airplanes/year or 2 000 000 passengers/year. However, actual use is 2 000 – 2 500 airplanes/year and 130 000 – 170 000 passengers. Capacity utilization rates are 10 percent and 9 percent in terms of airplane traffic and passenger traffic. Tokat Airport's capacity is 8 750 airplanes/year and 150 000 passengers/year. Efforts to open up the military airport in Merzifon to civilian traffic are locally maintained at present.

The volume of traffic is not close to the capacity on any highway stretches in the region. Utilization

of the ports and railways are very low compared with their capacities. The regional problem largely arises out of the failure to engage in combined transport operations as is the case for the nationwide situation. Development infrastructure depends on this.

2.1.5 Local Issues and Evaluation Thereof

A series of meetings and analyses have been made for the purpose of seeking contributions and comments of local participants as part of the Yeşilırmak Basin Development Project. The findings of the analyses conducted for the sectors are largely provided as part of the sector analyses. Annex 2 provides detailed breakdowns of SWOT Analyses, the major findings of which are summarized by Table 2.1.5.1 on a regional scale

Table 2.1.5.1 Results of SWOT Analysis

Strengths	Weaknesses
• Diversity of agricultural products such as fruits, vegetables, sugar beets and cereals and of animal husbandry opportunities	• Agricultural practices arising out of shortages of technologies, irrigation and organization and low demand by the rural economy, which lead to lower income
• Existence of large dry, irrigated and irrigable agricultural land	• Severity of winter conditions in the mountainous areas, harsh climatic conditions and areas with inadequate precipitation
• Existence of small industrial estates and Organized Industrial Zones (OIZs) capable of meeting the regional requirements	• Aged workforce and inadequate resources in the rural areas prevent efforts aiming at increasing income
• A geographic position facilitating trade and attracting industrialists	• A part of the region fails to benefit services and distance from the main markets
• Regional rich natural and historical heritage ornamented by a mountainous composition, coastal strips and historical remains	• Weak infrastructure
• Existence of abundant qualified and cheap workforce	• Inadequacies over the promotion of the regional natural and historical values
• Existence of organizations such as Yeşilırmak Basin Development Union, Municipalities Union, chambers and non-governmental organizations and their collaborative experiences	• Erosion and deforestation
	• Serious environmental problems caused by contamination of air, water and soil, which stems from industries in cities and countryside as well as from animal husbandry
	• Low entrepreneurship, shortcomings related to modern management techniques
	• Lack of trained staff in all the sectors
	• Low income
	• Inadequate development of local unions, partnerships and non-governmental organizations

Opportunities	Threats
• Existence of irrigation based dams and lagoons as well as new dams and ponds which are about to be put into operation	• Influence of higher borrowing costs and the less developed levels of financial structure on the reforms of investments related to industries and services
• Existence of micro climatic characteristics, suitability of climatic conditions for production of any kinds of agricultural products and ability to grow second products	• Failure to have capital accumulations which would create employment opportunities in the new computer and information technologies
• Provision of fresh support by the government for development of animal husbandry and suitable conditions for animal husbandry operations	• Lack of employment opportunities and the income level difference between the region and western regions, which lead to migration of young population from the region
• Existence of vast land areas	• Continued environmental deterioration in locations having sustainable agricultural and industrial practices due to excessive migration
• Existence of rich flora potential	
• Existence of strong potential for tourism with themes such as hunting, high plateaus and mountains	
• Existence of historical and cultural heritages as well as natural attractions	
• Existence of marble and lignite deposits	
• Possibility for a link by Kırıkkale – Çorum – Amasya Railway	
• Inclusion of the provinces of Amasya, Çorum and Tokat in the scope of Law No 5084 on Incentives	

2.2 DEVELOPMENT DYNAMICS AND TRENDS

2.2.1 Regional Development

The contribution to be made by the growth dynamics observed in the region through sustainable rapid development depends on the developments expected in four major areas. They are: formation of conditions ensuring sustainable use natural of resources; ensuring the environment which would enhance competitiveness of the regional producers; improvement of environmental conditions; and implementation and effectiveness of support programs which would attract those sections not assisted by the development dynamics into these processes.

2.2.1.1 Rational Use of Resources

A significant portion of the regional population is dependent on agriculture to make a living. The major problems affecting higher sustainable growth in agriculture are: deterioration observed in irrigated areas, soil erosion, destruction of pastures due to excessive grazing, water contamination, destruction of forests due to excessive tree felling and destruction of suitable environment for fishing due to contamination of fresh waters.

2.2.1.2 Improvement of Competitive Conditions

Existence and quality of physical infrastructure are the major elements affecting costs and competition for all the enterprises. Enterprises intending to be located in the OIZs and SIEs would be provided space there. If the regional producers would be allowed to make use of opportunities such as industrial zones, techno parks and technological development zones, which have started emerging recently, this would have a positive impact on competitiveness. The Regional Development Master Plan will incorporate investment programs that will ensure this. Any investments considered necessary to accumulate reliable and adequate infrastructure in these areas will be made part of the plan.

Provision of equipment, test laboratories and marketing centers and promotional activities for common use by the producers would be other forms of support affecting the competitiveness of the regional producers positively. Alternative financing models to the banking system, which has proven inadequate on the issue of financing private sector investments despite all the reform efforts, must be developed in the region.

New types of enterprises which are just developing in the region become more and more dependent on the availability of specialty workforce. Training requirements of a workforce having such specialties as well as the requirements of enterprises expected to be integrated with the world for staff with knowledge of foreign languages and contemporary management techniques must be met.

In agriculture, support will be extended for creation of a competitive product pattern and operating structure under the trading conditions for agricultural products, which will develop as a result of Turkey's EU membership.

2.2.1.3 Environment and Living Conditions

In the region, public resources will be used primarily for solving the problems related to water supply, waste water and solid waste disposal so that living conditions of the settlements can be improved. Programs strengthening the capacities of local administrations in these areas will be prepared.

Contemporary standards will be applied in connection with water and air pollution; management mechanisms will be developed to prevent use by

consumers where such standards cannot be ensured and programs will be proposed for regional implementation.

The regional development will be man-oriented. Introduction of adequate measures will be ensured to improve health and educational services in all the settlements in the region. Such services will be developed to such standards allowing any local and foreign visitors to the region to make use of them and this will ensure development of the regional image as a center of services.

The regional historical and cultural heritages will be preserved and developed so that they can be benefited by local people and visitors. This resource will have a significant part in the efforts to turn the region into a center of services and tourism.

2.2.1.4 Social Solidarity

The spread of development to the roots in a manner ensuring that all the segments can benefit it will be promoted. Priority will be attached to special programs to be benefited by the segments living in the rural areas and urban suburbs.

2.2.2 Development Potential for the Sectors

The development potential for the sectors, which is outlined below, stem from the region's own internal dynamics. The effects of the global processes outlined by Part 3 of this report have been duly considered in projecting the direction and level of these developments. The studies maintained as part of WTO and the restrictions imposed by them for direct production supports are the most significant ones among them in terms of the agricultural sector. The EU membership will bring about fundamental changes to the nationwide and regional agriculture. A similar interaction must also be expected in services. The potential effects of these changes are explained by Part "3.5 Foreign Economic Relations, International Developments and Their Potential Impact on the Region."

The Customs Union Agreement, which took force in 1996, has achieved Turkey – EU integration in industry to a large extent.

A fundamental change to be brought about by the integration with the EU will be in relation to agricultural supports. Rural public supports will concentrate on the improvement of environmental conditions, social development and creation of non-agricultural income in the rural areas rather than direct production supports.

2.2.2.1 Agriculture

This sector providing one fifth of the regional GDP still accounts for two thirds of employment. Agricultural production will directly determine the living standards of a significant part of the population until this employment is shifted to alternative areas. Therefore, efficiency and structural developments expected of agriculture will maintain their significance.

The areas where biggest contributions are expected over agricultural resources and efficiency are the following:

1. Agricultural development through activities such as completion of irrigation and in-field development services, production of high revenue generating products, improvement of animal breeds, construction of fisheries and forestation

2. Development of special programs so that water pollution is not caused by irrigation water to be used by agricultural production as a result of animal husbandry and agricultural activities

3. Promotion of the types of agricultural enterprises, agricultural implementation practices and poly-culture product pattern which will ensure agricultural efficiency

4. Farmers training and

5. Support of suitable organizational methods for rural development.

The responses proposed for each of these issues are explained below.

2.2.2.1.1 Development of Resources

The region has vast opportunities for development of productive resources. The irrigated areas in the region can be doubled upon the completion of investments under construction or at the stage of planning. Priority must be accorded to suitable in-field development activities in those areas opened or to be opened up to irrigation. Forty percent of the total land within the irrigation areas in the region cannot shift to irrigated agriculture due to these shortages.

Cattle account for 80 percent of the stocks of cattle and sheep and goats in the region. The ratio of the culture breed is about 15 percent in cattle farming. Local potential can be increased substantial by hybridization of the indigenous breeds.

Preservation is the basic approach to re-forestation of the forest areas. Priority must be accorded to completion of cadastre works and elimination of the conflicts between the forestry management and villagers rather than artificial interventions for implementation of this approach. Preservation must absolutely be in place in those forest areas for which there is now a clearly defined legal framework.

Prohibition of any kinds of tree felling by totally relinquishing the attitude treating the forests just as an instrument for production would have negative impact on the regional economy at a negligible rate of about five per thousand.

Focus will be on the enlargement of areas of sawing – plantation for the products covered by Table 2.2.2.1 given the fact that the regional climate and soil conditions are suitable and that some of them (such as corn) are imported at considerable rates as some others (such as cherries, sour cherries, apples, etc.) enjoy a demand by both local and foreign markets.

Table 2.2.2.1 Products Recommender for Larger Development in the Region

Provinces	Field plants	Vegetable types	Fruit types
Amasya	Cereals, medical medicine and spice plants on the dry land Oil plants, corn, fodder plants on the irrigated land	Okra, dry onion, potato, fresh and dry bean.	Cherry, peach, apple, grape, strawberry
Çorum	Cereals, chickpea, capper, medical medicine and spice plants on the dry land Rice, oil plants, corn on the irrigated land	tomato, pepper, barbunya (small reddish colored beans), dry beans, dry onion, melon and water melon	Apple, pear, sour cherry, plum, grape
Samsun	Cereals, chickpea, canola, medical medicine and spice plants on the dry land Rice, corn, soy, sunflower, fodder plants, corn on the irrigated land	Tomato, pepper, fresh bean, cabbage, leek, artichoke, broccoli, other winter and summer vegetables	Persimmon, cherry, peach, kiwi, blackberry, strawberry
Tokat	Cereals, green lentil on the dry land Corn, sugar beet, oil and fodder plants, corn	Tomato, fresh bean, pepper, other winter and summer vegetables	Cherry, peach, sour cherry, grape, apple, walnut, mahalep cherry, rose hip
In suitable areas and thermally heated greenhouses	Development of production of certificated and hybrid seeds Development of organic agriculture in uncontaminated irrigated and dry agricultural areas Development of in-forest products (production of natural mushrooms, medical medicine and spice plants) Development of floristry for sales and production of sitting room plants and decorative plants and rooted vines Production of vegetables, vegetable saplings, flowers for sale and vines Development of apiculture in the villages inside the forests		

2.2.2.1.2 Types of enterprises in agriculture

The small sizes of enterprises and lack of specialization are the biggest bottleneck over vegetal and animal origin production in the region. It would be impossible to have competitiveness under the present conditions after liberalization of the trade of agricultural products following Turkey's EU membership. Radical changes must be made for greater sizes of enterprises and further specialization. Villagers having no or little land must be offered employment in other areas. A method receiving increasing adoption by the European Union entails that the owners of enterprises below the minimum efficacy criterion are taken under a public social security umbrella for their exclusion from the agricultural sector through methods such as early retirement. It is quite obvious that Turkey has limited means for such interventions. However, an organization, which would involve methods such as supply of inputs and promotion of larger scales in processes such as production, processing and marketing may be treated favorably. On the other hand, diversification of income generating activities in the rural areas and development and support of alternative non-agricultural employment areas such as tourism apart from rural development supports of a national scale and agricultural restructuring gain prominence.

Consolidation activities must be completed rapidly for the purpose of combination of parcels owned by agricultural enterprises, which are located in different places. To this end, a legal structuring rapidly concluding objections raised over amalgamation is needed apart from completion of the regional cadastre works. In addition, the heritage law must be amended to prevent the re-fragmentation of the amalgamated areas.

2.2.2.1.3 Farmers Training

Transformation of the regional farmers into owners of agricultural enterprises from laborers working in agriculture with their physical efforts only must be achieved. Farmers must be equipped with knowledge which will ensure efficiency and they must also be provided with means to implement this. For this purpose, specialization and cooperation between research specialists and subject specialists and disseminators and farmers must be ensured. To this end, it must be ensured that dissemination services are commercialized increasingly, that common dissemination services are brought into the farmers' organizations and that effective training is provided to raise disseminators specialized in the subject.

Achievement of the most suitable product pattern for the regional ecology and market conditions is one of the most important innovations to be made by trained and specialized producers. Under this pattern, the models promoting higher added value generating fruits and vegetables and farming on contract will spread at a substantial rate.

2.2.2.1.4 Organization and Other Agricultural Activities

Regional farmers must be encouraged into getting organized for purchases of inputs and receipt of technical services as well as for effective marketing. This organization is an absolute need for fruit, vegetables and fruits which are consumed freshly. Cooperatives are just one of the instruments among numerous methods to be used for this purpose. Producers' unions are a successful practice developing in the region and similar practices must be encouraged. One of the major functions of this type of organization is to ensure the promotion and marketing of those products bearing the region's registered brands in the EU countries.

Discontinuation of excessive tree felling is a priority issue in forestry. At present, there is felling of about 2,5 million m^3 versus an annual natural growth of about 1 million m^3. Of this, one million involves cutting activities by the Forestry General Directorate as the remainder is the illegal cutting

activities by villagers for their heating/fuel requirements. Public cutting activities must be reduced as efforts are exerted to prevent illegal cutting.

Sea fishing offers the actual potential for fishing. A series of incentives including cage fishing may be implemented in the province of Samsun. Measures such as prevention of pollution in the rivers as envisaged by the Black Sea Economic Cooperation (BSEC), of which Turkey is a party, will reduce sea pollution and support development of fishing.

Apiculture is an activity maintained in the regional villages inside or near the forests, which generates income the rural population. As quality bee products enjoy demand both inside and outside the region, this activity must be developed in the region.

2.2.2.2 Industry

Manufacturing industry will be the driving force for industrial development. However, mining has considerable means thanks to both the richness of natural resources in certain areas and the connection between manufacturing industry and the mining sub-sector having substantial growth potential.

2.2.2.2.1 Manufacturing industry

An analysis of the added value per employee in the regional manufacturing industry indicates that enterprises making production for national and export markets have highest added values and highest shares (65,2 percent) in the total added value of the regional manufacturing industry. Industries making production solely for the region are the second group of industries. The share by them in the regional added value is 15,8 percent. Foodstuff industry emerges as the third ranking group with a share of 14,1 percent in the regional added value. Non-metal products manufacturing is the last group of industry enjoying a share of 4,9 percent in the total added value.

Given the added values generated by the large industrial enterprises in the region per employee, development of industries involved in metals,

Table 2.2.2.2 Classification of Groups of Operations with 10+ Staff in the Regional Manufacturing Industry

(YTL at 2001 prices)

	Groups of industries	Generated added value	Share (percent)	Added value per employee
I	Foodstuffs and beverages manufacturing	72 063 330	14,1	14 350
II	Manufacture of other non metal mineral products	21 324 863	4,2	7 482
	Manufacture of wooden and cork products (excluding furniture); manufacture of articles such as rush mat and the like, which are produced by weaving	3 246 246	0,6	9 492
	Furniture manufacture; other manufactures not classified elsewhere	322 320	0,1	5 199
III	Machinery and equipment manufacturing not classified elsewhere	16 113 361	3,2	24 526
	Basic metal industry	47 666 335	9,3	50 228
	Manufacture of apparels; fur processing and dyeing	15 068 327	2,9	16 030
	Leather tanning and processing; manufacture of luggage, hand bags, saddle outfitting accessories, harness sets and shoes	336 091	0,1	2 401
	Manufacture of textile products	1 536 195	0,3	6 537
IV	Manufacture of chemicals and products	26 827 304	5,3	24 433
	Manufacture of tobacco products	305 648 402	59,9	101 849
	TOTAL	510 152 774	100,0	33 228

Source: DİE (2003-3).

machinery, textiles, clothes and foodstuffs, which make export oriented production as well as production for national markets, is of considerable significance to increase the regional GDP.

The region has manufacturing industry enterprises, which are fed by four separate sources: I) food processing industry II) industries using non metal minerals, which manufacture marble, tiles / bricks, sanitary products and wooden products III) Industries manufacturing consumables for the region (other than foodstuffs) (clothes, metal articles, etc.); IV) enterprises making production for national and export markets. Table 2.2.2.2 provides a summary of added values generated by these industries, shares by the total added values generated by manufacturing industry workplaces with 10+ staff and added value per employee.

Industries developing in connection with these four groups of industries gain importance at later stages of development. The basic components of the strategy to be implemented for the purpose of supporting these industries in the region are outlined below.

2.2.2.2.2 Mining

Mining has three components having large development potential. They are: use of thermal resources, marble processing and non-metal mineral operations.

The region has thermal springs having varying temperatures, which have a total flow rate up to 517 l/s. As it appears, there are possibilities of using these springs for thermal tourism and building a thermal spring utilization capacity above the present one based on the international thermal water utilization value of 600 l/s.

The bed capacity of the regional facilities is estimated at 3 000 persons given the thermal water capacity. It is understood on the basis of the locally gathered information that the facilities in Amasya Terziköy, Samsun Havza and Tokat Reşadiye, which are used for thermal tourism purposes, provide services for the regional tourism and that they operate at high occupancy rates between June and September.

The private sector's existence in this sector must be strengthened and/or effective use of the public sector disposal on the resources must be ensured so that thermal resources can be developed.

Marble is the most important of the underground resources in the region. There are proven marble reserves of 692 million m^3 on a region wide basis, of which 672,6 million m^3 is in the province of Tokat, 18,4 million m^3, in the Province of Amasya and 1,0 million m^3 in other provinces. A production of only 18 181 m^3 (2,6 per thousand of the total reserves) could be made from the said reserves in 2002 when the production was relatively higher.

A large portion of marble produced is locally processed and consumed in the local markets as a very low volume is exported to the Far East countries such as China, Malaysia and Indonesia at prices ranging between 150 – 350 US dollars/m^3 in a bulk form. Such countries buying marble in a bulk form process it by benefiting from their low energy costs and then sell finished products in plates to other countries in the world at a price of about 3 000 – 5 000 US dollars per cubic meter after processing.

Licenses of the marble sites have been obtained by persons not actually involved in this business. License holders do not operate their marble sites. Because modern marble processing machinery is expensive and quarry mining and production of marble to the global standards require substantial fixed investment, it has failed to achieve the expected developments in the sector. The development of marble production in the region will create employment through exports of processed marble, making contributions to the regional economy.

A large portion of the enterprises operating in other non-metal minerals is accounted for by the regional industrial operations based on “stone and soil” (plants producing tiles and bricks). Such operations are located largely in Çorum, particularly Çorum Central District and Osmancık as well as in Mecitözü, in Tokat, in Erbaa – Niksar Plains though at a smaller capacity because of the economies provided by their proximity to the mineral resources. Lime and cement plants may also be added to these industrial facilities in general. Such industrial establishments which have particular importance for the region as well as strategic significance over the regional development (excluding cement plants) are the plants, which usually employ obsolete technologies, contribute to employment by hiring seasonal labor and cause certain problems ecologically. This type of industry has development potential under an approach based a technological and organizational drive, which also covers a development perspective aiming at the foreign markets in addition to the Turkish market. Some examples of the achievements by such a qualitative drive have started being observed in the region as some successful development models have been achieved for the industry.

2.2.2.2.2.1 Supporting the effective use of contemporary technology

Low quality and market shares for certain products are the basic factors preventing the development of the industries processing local feedstock. Success in overcoming these restrictions depends on the quality of materials used in production, supervision in the production process and achievement of production complying with the standards through use of any kinds of control instruments. The technologies used by companies are the critical element and machinery involving this technology is largely imported. The production organization of companies must allow the adaptation of technology to their own conditions. Access to information, participation in international events such as fairs and use of consulting services must be supported so that the efforts of the industrialists making production in the region to follow up new technologies can be supported.

2.2.2.2.2.2 Provision of infrastructure, support services and feedstock

Physical infrastructure

Two basic factors affecting a company’s competitiveness, which occur outside the company, are the availability of infrastructure (both physical infrastructure and technical staff having any kinds of qualifications) and development of an industrial structure which would help with utilization the economies of scales and agglomerations. Guidance over the selection of the sites for industrial facilities will be a major determinant in this respect.

Organizational legal structure

Adequate supplies of suitable quality feedstock are needed for the industries processing agricultural products. These problems may be overcome through contract farming. This model must be tried for several important products on a priority basis. The existence of industrialists making production under popular brands for the national market in the area must be utilized for this purpose.

Another important bottleneck over the processing of the agricultural products is that the standard production is inadequate for some products. Only a 10 percent portion of the regionally produced milk can be processed by contemporary methods. The heavy burdens on the officially recorded enterprises and higher energy and operating costs make those products produced with modern technology unaffordable for the consumers. Given this, traditional methods such as operation of small dairies become dominant but such enterprises produce traditional products such as white cheese for which no special infrastructure is needed to market, rather than products with higher added values (pasteurized

milk, ice cream, etc.). This situation also applies for processing of vegetables and fruits. The share of the processed products in the total production will increase to the extent the burden on the officially registered enterprises is lowered.

2.2.2.2.2.3 Increasing access by the regional producers to the market

Production made for the regional market will increase parallel to the increases in the regional income and urbanization rates. Increasing income of the rural population and commercialization will increase the market for these products at higher rates.

It is possible for those enterprises making production for the national and export markets to increase production and employment. This is partially the result of the increased communication and transport means and spontaneous centralization. However, this process can be accelerated with suitable interventions. The three major tools to support this process are the provision of factory land with all kinds of infrastructure to industrial establishments, provision/training of specialized workforce and provision of access to the regional and international markets from the place of production in the cheapest and most reliable manner.

2.2.2.2.2.4 Benefiting the economies of agglomerations

The economies of scales and agglomerations may be benefited if support based on suitable location selection decisions is extended to the four industrial groups mentioned above (food processing industry; industries producing non metal minerals, which produce tiles/bricks, sanitary articles and wooden products; industries producing consumables for the region (other than foodstuffs), industries making production for the national and export markets). As a result of this, other industries providing services to the residential industries may develop: packaging, machinery production and production of spare parts are such types of industries. This development would accelerate if industrial production could be concentrated in certain hubs (industrial cities, OIZs and SIEs). Potential effects of privatization of the publicly owned enterprises must be evaluated by considering the fact that their potential to create economies of agglomerations is low because these enterprises are the operations producing finished products and their relationships of input and outputs with other industrial entities are low.

On the other hand, Region TR83 loses its privileged status because the number of the provinces enjoying the measures introduced by Law No 5084 on Incentives is increased. If the region is to compete with the other regions in both the country and the world on a global scale, this would be possible only through mobilization of its internal dynamics and development of its ability to adapt to new conditions rather than external sanctions/incentives.

2.2.2.3 Services

Development of the services sector depends on the transformation of this sector into a structure which provides specialty services effectively from the present structure harboring hidden unemployment. The sub-sectors where important developments are expected are services specialized in educational and health services; professional business services and specialized activities in wholesaling in particular as well as in the issues of exports and imports at an increasing rate. Most probably, the retailing sector will maintain its present position; However, there may not be considerable rises in the number of employees as a result of the increasing control of the large markets, which is observed in the commercial structure already harboring a large portion of employment at present.

The companies in the region have large potential to take part in the trade conducted with the countries on the Black Sea coast, CIS countries, Iran

and Turkic republics. Samsun is the transit gate for goods shipped from Europe to the Middle East via the Danube – Ren – Main Canal. Samsun Port has regular RO – RO lines to Russia and Ukraine as Samsun Railway provides access to the Free Zone. However, as a result of increased quality of services and lower service costs offered by other ports in the region, shipment made from the Samsun Area is shifted to Trabzon Port. Regional exporters believe that other Black Sea ports transferred to private concerns and Samsun Port, which is owned by TCDD, create an unfair situation for them. In addition, Samsun Port has infrastructure for modern inter-modal transportation, but because it cannot carry out container handling at present, it cannot use this advantage. Ro Ro traffic which had reached substantial proportions with the Ports of Ilishevsk, Novorossisk and Constanta, still has potential to have development again.

The region has adequate transport infrastructure with the adjacent regions. The high growth trend of the foreign markets which are accessed via the Black Sea, the regional intensive agricultural production provide the region with significant opportunities in terms of trade. Exploitation of these opportunities will be possible through commercial relations and regional entrepreneurship which will develop over time.

The local market chains steadily increasing in the city centers in the region change the profiles of the regional wholesaling and retailing. Several packaging companies in the region produces packages for these markets although their number is low. These enterprises are expected to expand their activities to cover those nationwide market chains over time. Development of enterprises operating in storage, drying and deep freezing apart from packaging is of great importance for completion of the supply chains. This infrastructure will encourage marketing of rapidly deteriorating agricultural products such as fresh vegetables, fruits and milk, which are of critical importance for YBDP.

Tourism will be developed through diversification in the region. The tourism development projection will be to develop local tourism in the region first, which is not covered by mass tourism and will focus on theme tourism, and to achieve the orientation towards foreign markets through the momentum to be provided by this. Development of local tourism will enhance the capacities and quality of accommodation, catering and services necessary for the regional tourism, promote creation of new capacity, provide necessary motivation for development of human resources, create economic grounds for solutions to the infrastructure problems encountered and contribute to the regional employment and development thanks to the multiplier effect in particular. In order to be able to catch the tourism effects fully, a systematic inventory must be taken of any historical/cultural and natural assets which may serve as themes for tourism as well as of any other structures deserving registration and the region must be promoted to both the regional people and the world by means of a promotional program.

Promotion of tourism tops the list of major shortcomings. Apart from the actors of the public and private sectors, non-governmental organizations are the most important components of the tourism sector and they will be supported so that they can provide necessary contributions to the promotion and development of the region and preservation of the social and cultural life. Tourism oriented commercial activities will develop in the regional rural areas parallel to the development of local tourism as well as development of necessary infrastructure and services.

It will initially be targeted to develop local tourism in the tourism sector on a priority basis and parallel to this, development of foreign tourism in particular areas having special themes will be supported. Retention of trained qualified staff in the region is also a major problem apart from the inadequacy of the training institutions raising qualified staff for achievement of development of

the regional tourism in terms of both quantity and capacity. Therefore, institutional structuring for development of cooperation between the tourism operators and training institutions will be supported so that the region can be self sufficient in tourism employment in the long term.

Enhancement of the accessibility of the region will support tourism movements. Although the highway network is generally adequate, any road connections where infrastructure proves insufficient must be developed and maintenance, repair and signing/marking works to acceptable standards must be made on the entire road system. In addition, it must also be ensured that the present airports are effectively used for civil aviation and that in this framework, necessary feasibility studies must be made to open up the military airport at Merzifon to civil traffic in the future so that opportunities are in place to attract tourists from remote distances. In the short run, it must be ensured that the rail-bus practice provides regular and frequent/reliable services. The transport by sea system already has the means which may be exploited to address tourism objectives and make contributions to regional tourism. Practices which will allow attraction of tourists from the neighboring countries in the Black Sea basin must be accorded priority.

2.2.3 Social Development

2.2.3.1 Improvement of Urbanization and Living Standards

The region will have urbanization at a considerable rate until 2023. Parallel to the gradual urbanization of the population, Samsun will be a city much more important than it is presently and the relations of the city as well as of the other major centers in the region with the outside world, particularly BSEC and EU countries will multiply and be more frequent. Fairs to be organized will be the most important instrument for this outward orientation. In addition, the region's integration with the outside world will be strengthened by exhibitions in Samsun and other urban centers in the region, conferences and congresses by the universities and research institutions, art festivals (music, painting and sculpture, cinemas and theatres, etc.), which will all communicate the global developments and provide promotion of the region. Thus, Samsun will develop into a center increasing the region's trade and tourism potential, increasing opportunities for cultural pluralism and competition with other EU regional centers.

Following urbanization, the institutional and organizational structures developing urban living culture will increase in number as the efforts for protection and development of urban people will be effective. It is of great importance to ensure in respect of good governance that the actors (local communities, central government, local authorities, private sector, universities and other research & development institutions, bars, chambers, unions, trade unions and non-profit non-governmental organizations), which will achieve this institutionalization, can move towards certain common goals through different combinations. The social features of urban life will be enhanced as long as urban administrations can operate the mechanisms that will strengthen the participation of the urban population. Local architectural features, streets and squares, parks and green areas in the cities will be developed jointly with the urban population in line with the goal of improving the living standards though projects involving joint ventures with other actors. Individual relation to the habitat must be improved and projects achieving participation by all the parties must be supported so that sustainable development is possible. Achievement of such a participation will be possible only if all the stake holders receive a fair share of the regional development and practices to this end are transparent allowing accountability. Each city in the region will improve its identity through different projects for development of its present potential and thus, it will be able to find ways of specialization and differentiation in certain sectors in the region.

2.2.3.2 Strengthening Women's Place in the Social Life

Inclusion of females in social life on an equal footing with males will be the most effective power for improvement of living standards, outward orientation and the region's exclusion out of "provincial" norms. Therefore, particular support must be extended for education and employment (which is not domestic and free family labor) of females. Any developments which are based on participation of females in all the professions and decision making processes (primarily in local political decisions) must be supported. At the stages of achieving these developments, "positive discrimination" and quota policies must be implemented particularly in the fields of education and employment. Organizations and institutions for provision of care of working females' children as well as of the elderly and patients must be strengthened to develop females' labor life and enhance their non-domestic roles.

Both sexes must have a full understanding and awareness of the issues and additionally, solutions and transformations must have an intrinsic recognition so that females may have an equal position. For this purpose, it must be ensured that social education on sexes must be provided to the public sector institutions and non-governmental organizations as well as the communities they interact with, including the private sector concerns.

2.2.3.3 Improvement of Cultural, Educational and Health Levels

Outward orientation and relations with other cultures will be supported in the region, which is going global and integrated with the outside world; however, importance will be accorded to studies on local cultures and an analysis of all the layers of the region's past to ensure their adoption. For this purpose, priority will be attached to preservation and restoration of historical sites and buildings having a large stock in the region as well as to ensuring that such sites are maintained through appropriate functions. As instruments for such efforts, museums will develop programs for achievement of exhibition and public participation by implementing active policies, libraries will develop in a manner meeting commercial – industrial requirements opening up to all the segments of the society and providing opportunities for access to information on electronic media. Necessary tools will be developed so that the characteristics of an information society may be acquired and this process accelerated. Achievement of access by all the segments to any kinds of information whether academic or current commercial, industrial and technological information and use of such information will be facilitated by educational opportunities and information provided. It is important to program this access according to the local means and requirements. Facilitation of access to computers and congresses and seminars which will ensure an exchange of information will also bolster the policies of outward orientation.

Due consideration will be paid to the objective of "becoming an information society" as part of preparations for the future and formulation of educational policies. Educational practices will be arranged according to a globalizing world and future potential requirements. It will be ensured as part of educational studies that the private sector and civil society work jointly with the public sector and that developments regarding requirements guides the local educational practices. Fulfillment of full enrollment rates in basic education is a target which needs to be met immediately. The structure of secondary education, which is preparatory for vocational training and higher education, vocational guidance to be provided for the region and effective guidance works will help TR83 gain advantages. Education is treated as formal and informal education at all levels. Inclusion of civil society and regional NGOs in educational issues is also important in respect to forming the future in a manner compatible with other social policies.

Informal education will be programmed such that it can meet the future potential economic requirements in the region and that the capacity of acquiring and creating information can be developed. Learning systems considering the significance of "tacit knowledge" for workplaces like SMEs in particular, including the clusters formed by them, will be developed so that the region can be a learning region. Production calls for consideration of rapid changes for global relations and global markets. Flexible working and educational systems must be developed as market conditions as well as production information and employment types depending on it change. There is a frequent relocation between related issues particularly in the technical area and shifting to a new production area or a new profession thanks to additional information. The education system must be programmed in line with the requirements of acquiring knowledge and skills which change so quickly. Support will be extended for the entire communities in the region to learn foreign languages and thus, the capabilities of the communities to establish relations with the outside world will be improved.

Technical training to be provided by organizations of formal and informal education bears critical importance for the future of the region. Diffusion of multi-program technical and vocational training will be ensured with a flexible and modular approach. The partnership policies will be adopted and accorded importance in the processes of relations and decision making and implementation as regards the SMEs so that the quality of technical training may be improved and such training may be integrated with demand. Where necessary, positive discrimination will be implemented in favor of girls so that vocational training may be provided to girl students on an equal footing applicable for male students and job allocation based on the social perception of the sexes is not consolidated.

Local entrepreneurial power must be increased and more flexible organizational patterns be introduced so that health efforts may be effective. In case the health insurance system is diffused and all the social segments benefit services, there will be a need to implement a leveled referral chain for organization of services in the countryside and cities. Mobile health care services must be organized in the rural areas.

The health care data base must be strengthened and projects covering a wide range from protective health care services to basic health care services and inpatient health care services jointly developed by getting the support of civil society on a comprehensive scale so that services for primarily infant and child health and secondarily adult and elderly care may be offered.

2.2.3.4 Strengthening the Disadvantageous Groups

Special policies will be in place for prevention of social exclusion of the marginal and poor segments, particularly reduction of difficulties experienced by the poor segments in the cities to have access to the network of relations for both themselves and future generations. These policies are mainly: provision of education, which will offer youths increased employment opportunities and improvement of entrepreneurship through operation of micro credit systems. To ensure effectiveness over these issues, efforts will be made to strengthen the link between these programs and non-governmental organizations and civil society organizations and their capabilities will be combined. The measures to be taken to prevent poverty will no longer have the nature of "assistance" and they will be re-treated in line with the objective of making individuals "capable of achieving things" on their own. However, the society also has groups remaining outside such a program, which have no work opportunities. Such groups must be identified properly and assistance must be developed with special emphasis on the improvement of the living standards of these groups.

In order to be able to achieve effectiveness over

the practices of "direct income support" under the programs to benefit future generations, the participatory approach will be efficiently used in both the design of the programs/projects and operation of the monitoring – evaluation systems as it will be ensured that the expectations of all the parties converge on common points.

2.2.3.5 Organization and Institutionalization

The social organization of the regional inhabitants is the most critical factor for the planning of the region's future and achievement of relevant practices. Decisions are effective and feasible to the extent the society in both the countryside and urban areas may adopt such decisions through discussions involving public administrations and private sector concerns on a wide range of issues covering any aspects of production and social life. This will, in turn, ensure that the practices in the region are more efficient and that as a result, a desired growth rate may be achieved. Evolution of the relations between the civil society and the public sector from an understanding of management towards an understanding of governance and efficient operation of the system depend on the power and speed of the civil society to get organized. Therefore, there is a need for development of special programs and provision of training in this direction so that the civil society may organize and organizations by it work effectively.

The institutionalization strategy aims at achieving a three dimensional reinforcement. They are: organization of participation such that it may direct and supervise the development process of local people, ensuring cooperation between the local administrations and ensuring effective communication between the regional organizations and national organizations and the first two groups of actors.

Development agencies (DAs) for which establishment preparations are under way will be the institutions which have significance on a national level. An effective participation of DAs in the processes of project preparation and implementation by the industrial institutions will be ensured. Particularly, there is a need to allow municipalities, which are affected by implementation of those projects with effects beyond the municipal territories, to offer cooperation as sub-groups.

The Regional Development Project must be a pioneering instrument for participation by local people and non-governmental organizations in management and introduction of new practices of governance. Participation, partnership and organized society are the guiding principles in this regard.

2.2.4 Environment and Spatial Structure

2.2.4.1 Environment

The areas related to environmental and ecological issues are among the basic elements of the regional development vision. The environment affects the shape and costs of the developments in the field of economic development (agriculture, industries and services). It determines the direction of the quality of social life and population movements (qualifications of rural and urban life). More importantly, it covers the methods of maintaining natural balances and reversal of environmental deterioration and provides guidance on how Turkey must meet its commitments under the international conventions by acting in compliance with them.

2.2.4.1.1 Pollution

Water contamination is one of the most important issues in the region. This heading covers rivers, lakes and basins and seas.

Turkey has made commitments to reduce its contributions to the pollution of the Black Sea and pre-

serve the ecological balances there. To this end, it must reduce the pollution in two rivers pouring into the sea and check excessive hunting which may be practiced any time round the year at present. If all the countries encircling the Black Sea fail to meet their commitments for preservation of ecological balances, the sea will lose its livelihood entirely in the near future.

Pollution in rivers

Urban wastes must first be treated so that pollution in rivers can be prevented. The cities discharging their waste waters into Yeşilırmak and Kızılırmak as well as into their offshoots have no treatment plants at present. Treatment plants figure high among those projects which are not favored by the regional municipalities much due to considerable costs involved in their establishment and operation. Municipalities in the cities having different populations in the region must give priority to the design and establishment of waste water treatment plants on their own or through joint ventures/unions depending on the rivers in their areas by considering their geographic positions.

It must be ensured that the OIZs and certain SIEs depending on the types of their activities and operational densities carry out their own treatment or preliminary treatment in line with the standards and rules to be agreed on between the municipalities and managements of such zones or estates. It must further be ensured that animal husbandry, particularly those facilities engaged in livestock farming in the rural areas are concentrated in "special purpose" operating zones and that manure generated there is recycled into an economic value; preliminary treatment plants must be built for other pollutants. These are the top issues calling for consideration. Relevant standards must be developed along with rules for implementation.

Treatment projects will also reduce pollution in the water basins, thus ensuring that water used for agricultural irrigation is reliable. Prevention of pollution is of vital importance for the region. In particular, clean water and a clean environment are prerequisites for development of organic agriculture and access to the relevant market.

Solid waste issue

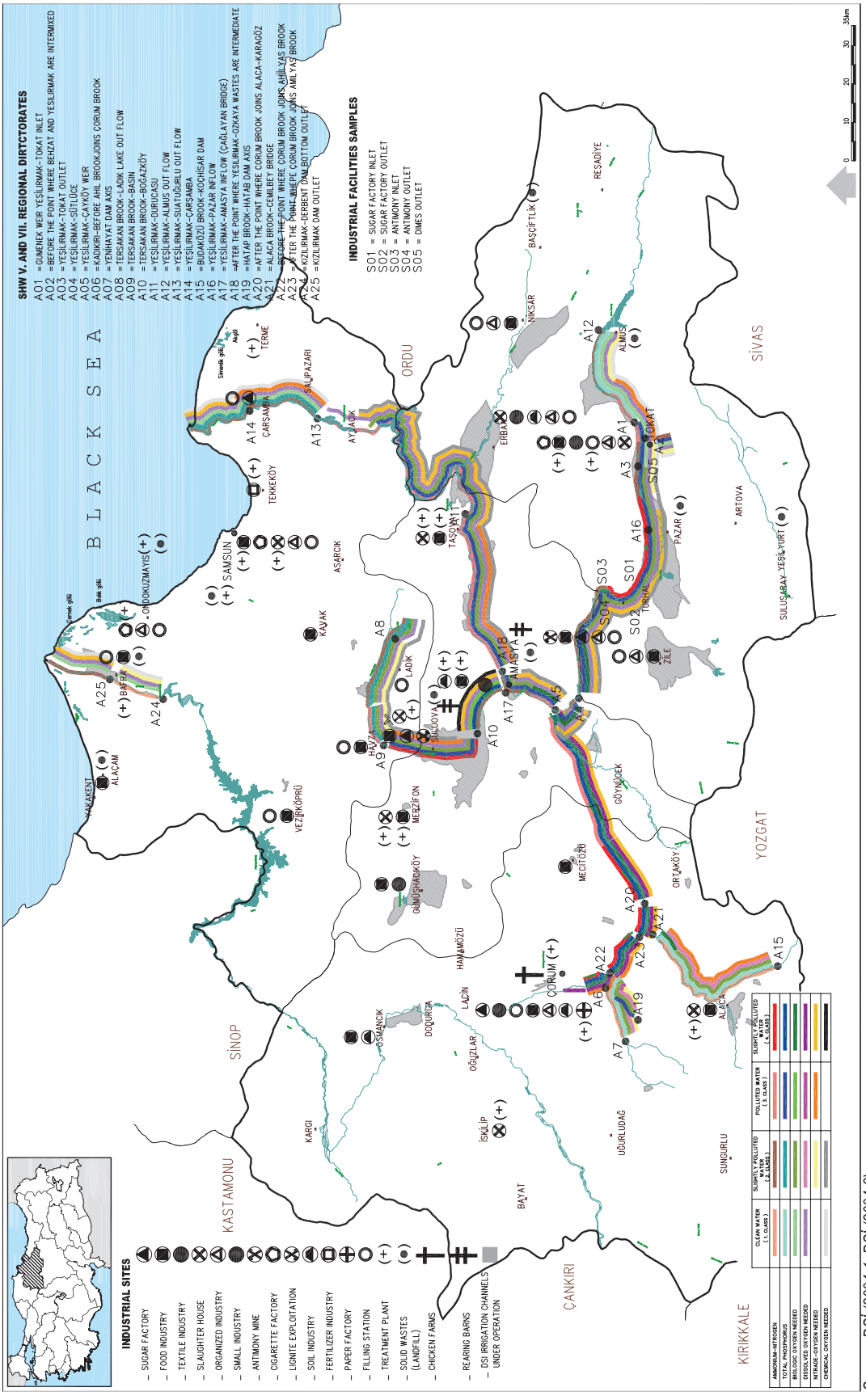
It is one of the issues to be tackled by the municipalities on their own or through joint ventures/unions to be established for this purpose. At present, the solid waste storage facilities of any of the municipalities conform to the applicable standards. Drinking water supplies for the cities are largely from underground resources and use of the regional underground water resources have reached upper limits. Therefore, the issue of solid wastes contributing to the pollution of ground waters must be addressed quickly. Projects to be developed may be eligible for funding by the EU.

Soil contamination in the rural areas largely stems from excessive and non-scientific use of chemical fertilizer, herbicides and pesticides. This also affects agricultural costs negatively at the same time. The dissemination efforts in this regard must be systematic, with a larger scope.

2.2.4.1.2 Environmental Management System

Although pollution reducing projects are very important, it is of equal importance to establish a monitoring and evaluation (M&E) system. Therefore, the measurement stations on the rivers must be more frequent and norms and standards must be introduced to the communities. The rules for establishment of the organs in charge of M&E must be defined by local administrations (and/or DAs) and this system must be operated by an understanding based on governance with a composition representing the different parties of issues. Thus, rules for accountability and compensation may be operated covering a wide area from a scale of settlement to an individual operational scale.

Figure 2.2.4.1 Changes to the Parameters of Pollutants and Polluting Sources



Source: DSİ (2004-1, DSİ (2004-2)

The approach outlined above must also be implemented for air and noise pollution; for this purpose, measurements must be made and standards established and these must be made public; M&E system as well as the rules for accountability and compensation must be operated.

2.2.4.1.3 Erosion and Land Losses

Erosion and subsequent soil losses are one of the most serious issues in the region. It is observed that although it is not the most serious erosion zone in Turkey, TR83 faces the issue of erosion at a large rate. The most serious areas of erosion are the forest areas at the same time. Although the region is rich in respect of forest areas, the quality of its forests is not adequately good and a large portion of them has the nature of coppice forest.

The total of illegal tree cuttings by forest villagers and routine cuttings by the Forestry General Directorate is above the natural growth rate of forests. The total of such cuttings must be limited to a rate in line with the natural renewal rate of forests and illegal cuttings must be prevented.

The issues of erosion and forests overlap to a large extent. Both issues must be treated jointly and issues leading to soil losses must be reduced/ eliminated with a participatory social forestry approach. The basic asset of this approach is that the public administration must develop programs and projects jointly with the communities living on this geography in line with the economic – social and spatial local characteristics of small geographic units. Thus, the local communities which are considered part of the problems may be turned into part of a solution.

Methods of spreading in Region TR83 this approach implemented by the Environmental and Forestry Ministry though on a project basis must be one of the priority issues to be taken up by the central public administration and DA.

Forest villages turn the nearby forest areas into agricultural enterprises for single year vegetal production. Agricultural areas expand to the detriment of forest areas. However, this situation fails to provide an economic solution; In addition, it leads to ownership problems with the public administration. In connection with the trend of out-migration from the forest villages suffering a rapid population decrease, policies must be developed depending on a detailed survey to be made concerning the characteristics of this migration and problems thereof and again, it must be ensured that migrants can start a new life in more favorable conditions.

Expansion of cities into agricultural areas is one of the problems recurring commonly. This expansion leads to serious problems as a result of loss of arable land and dangers caused for safety of developed areas in respect of earthquake and disasters. By considering the sizes envisaged by the population projections, urban development and transformation policies must be arranged such that they may direct growth on the basis of sound and reliable ground.

2.2.4.1.4 Sensitive Zones, Wetland Areas and Natural Attractions

The deltas of Yeşilırmak and Kızılırmak are the most important wetland areas in respect of the region's eco-systems and the delta of Kızılırmak is under preservation in the framework of Ramsar convention. There are areas declared as "sensitive zones" in the region in addition to this and the region has particular importance in terms of plant diversification, particularly profusion of endemic plants and richness of fauna. The region's distinctive features include the deltas and wetlands used by migrant birds as well by other species of birds. Protection of the sensitive zones and wetlands must be converted into a practice receiving a social recognition and approval by all the parties. The same approach also applies for operation of M&E system. Protection projects may be eligible for financing by EU funds.

It is preferred that any policies and projects protecting the natural environment must consider the values possessed by the region in terms of the historical and archeological environments, that where feasible, historical environment preservation projects must be integrated into environmental projects so that they can provide protection with a more comprehensive approach and that such projects must define the nature of and standards for potential use thereof.

Tourism related developments require preservation of natural attractions in the region to the same extent historical values deserve. In order to improve the living quality, it is a priority issue that environmental elements must develop in both rural and urban areas and that maintenance of ecological balances must be ensured.

Figure 2.2.4.1 indicates pollution related sources and the severity of pollution caused. On a regional basis, issues related to environment must be evaluated on the basis of priorities by considering the potential expansion corridors and characteristics of the sectors. The regional plan must cover the environmental preservation priorities and projects by considering the importance levels of the sources causing pollution. Programs which will increase the local capacity ensuring the implementation of the environmental standards without compromise must be developed so that any expected developments would not affect the environment adversely.

2.2.4.2 Spatial Structure

Urbanization in the region will continue increasingly after slow down and eventual discontinuation of migration of rural population as well as migration to the outside of the region depending on the developments envisaged by the scenarios and about three fourths of the population of the region will start living in the cities in the future. However, despite the efforts by the institutions such as ORKÖY, the migration experienced by those poor forest villages with little population in particular is expected to continue. Efforts will be made to direct this migration to the regional cities and responses considering the requirements of population migrating to the regional cities and improving its urban, housing and living conditions will be supported.

Alleviation of the pressure on the forests and reduction of costs of public services may be evaluated as the positive impact of the decreasing population in the forests inside or at the outskirts of the forests. Evolution of the distribution of population in the rural areas towards a pattern which can achieve the reduction of extending public services to rural settlements and allow the communication and relationship network to meet the marketing requirements will be encouraged. Again, development of 260 settlements in the case of rural settlements with little population, which are hardly accessible due to conditions such as elevation/topography and are designated central rural settlements (CRS) in the framework of Cabinet Decree No 9236, will be promoted (based on an evaluation to be made again) in connection with this. For this purpose, support will be extended for development of infrastructure and services in the said central settlements, strengthening of the regional transport network with the upper level centers and improvement of the living quality in such settlements.

Priority will be accorded to the development of three types of settlement over the regional settlement leveling. They are: major cities, centers having growth potential and urban characteristics and rural service centers.

The policy for rapid development of Samsun as a major port city for both the region and Northeastern Central Anatolia Region located in the hinterland and for its strengthening in terms of population and functions will be supported. It must be ensured that Samsun takes on the characteristics of a metropolitan city to attract population so that it can be a city to be preferred by a qualified population to live in.

As a general policy:

- Projects aiming at planned growth of the major cities, particularly Samsun and Amasya, Çorum and Tokat and solution of their present problems will be implemented.
- Medium size cities with growth potential and city characteristics will be supported so that they can be major centers of attraction over the spatial distribution of different activities.
- Because it is envisaged that the rural population, particularly those forest villages having major problems, is expected to continue the trend of out-migration, it will be planned to attract the population leaving

2.2.4.2.1 Improvement of Living Quality

A major factor determining the living quality in the major cities relate to discrepant or low quality physical, urban/social infrastructure. Such discrepancies will be corrected, quality raised, intracity transport problems solved and further, it will be ensured that regular urbanization and a livable environment may be developed by preventing illegal development. Positive external economies and urban culture to be created by concentration in the major cities are the very elements which will support development.

It is a priority to make up for any physical and social infrastructure shortcomings in medium size cities, to increase accessibility and ensure planned preparations by the cities for the future.

Increased accessibility is a priority in the small settlements. This applies for both individual services and production related services.

For improvement of the quality of structured environment in the cities, urban transformation projects, which treat environment, cultural heritage, social and economic structures and social and technical structures in an integrated manner, may be implemented. On the other hand, a participatory approach will be maintained as a controlling element for elimination of any issues likely to arise parallel to development of cities and achievement of sustainable development.

For the purpose of improving the living standard in the rural areas, the relations between the cities and rural settlements in the hinterland must be strengthened, accessibility of the rural areas, increased and discrepant social and technical infrastructures in the rural areas such as education and health institutions, sewerage and drinking water supply networks, corrected in a manner raising their qualities.

Following the decrease in the settlements accommodating small population groups, any uneconomical practices over provision of services in the rural areas as well as the inferiority of service standards will decline.

2.2.4.2.2 Strengthening Production Infrastructure

In order to increase employment opportunities, programs must be developed for development of local capacities in the rural and urban areas, any discrepant infrastructure affecting the OIZs and SIEs be completed and non-agricultural activities be developed in the countryside. On the other hand, infrastructures providing the region's links to the outside world (such as airports and communication infrastructure) need to be enhanced.

Concentration of an increasing portion of urban population in Samsun, which is in a position as the region's metropolis, namely transformation of Samsun into a pioneering city would provide numerous benefits in terms of urbanization dynamics and services to be provided to the urban population and rural areas. Therefore, programs will be developed ensuring that the city of Samsun becomes a dominant city for the region. It is envis-

aged that Samsun, which is the region's window to the outside and its metropolis at the same time, would receive migration from not only the areas in the borders of the central district defined as its own sub-region but also the urban and rural areas both inside and outside the region and will reduce its out-migration. If Samsun becomes the dominant city in the region, this is expected to create positive effects in terms of regional urbanization dynamics and rural population movements. Therefore, it is of considerable importance to identify priorities for elimination of present problems in the sub-region and preparations for future and put them into implementation.

Level Four centers in the region (Amasya, Çorum, Tokat and Merzifon) will be developed in line with the functional demands of the dependent population in the hinterland. Some of them accommodate enterprises making production for national and export markets and therefore, their competitive positions will be strengthened.

For effective distribution of services and functions in the region, Level 2 centers as well as the central settlements designated by Cabinet Decree No 9236 must be developed so that services may be provided to the third level centers and rural areas more effectively. It is a common fact that the objective of this decision taken in 1997 is to ensure timely and complete provision of services extended by the implementing agencies to the neighboring rural settlements though certain priority settlements. In this framework, those of 260 central settlements defined in the region, which have priorities in respect of their positions, must be developed. Spatial distribution of the units which are to extend services to the rural settlements becomes important given the fact that the number of some settlements – particularly those with a population of less than 500 – will decline as the population of some settlements will decrease depending on the loss of population by the rural settlements.

3 BASIC FRAMEWORK OF THE SCENARIOS: AN OVERVIEW OF REGIONAL OPPORTUNITIES IN LIGHT OF THE PRESENT SITUATION AND POTENTIAL DEVELOPMENTS

When the region is evaluated from a broad perspective, it is a stagnant region although it has rapidly changing spaces and sub-sectors. Its economy has slow growth; its population has slow growth although its rate of natural population increase is still high; because employment opportunities do not increase adequately, it gives out migration considerably. Capital accumulation fails to turn into investment in the region; it suffers human migration as well as capital migration through the financial system; some of its businessmen prefer to make investment in Istanbul and other developed regions of the country instead of the region. Although its enrollment rates are close to the nationwide averages in case of primary and secondary education, it lags well behind the nationwide level in terms of higher education. It has a very poor performance over the health indicators as it lags behind the nationwide averages in terms of all the indicators. Although there has been some progress regarding the levels of organization increasing the region's performance in the economic and social areas, which are based on the voluntary cooperation of the actors and aim at achieving results, they are still in a low position.

How can the region be made more competitive and developed in an environment where protectionism has disappeared to a large extent, flows of capital and information have sped up, major companies have integrated their productions on a global scale, manual labor has lost its significance in many sectors relatively as brain power has become prominent and almost every region is in competition with other regions in the world? How can we help those regions watching this competition as on-lookers gain momentum in a world where spatial development is through accumulation and the distance between the regions surpassing the critical thresholds of activities and the regions failing to surpass such thresholds? Although there some clues, there are no ready answers and solutions to these questions. Any answers to be given have to be specific for the region, for every region is different from other regions in respect to its specialty, sociological history, collaboration background, geography, factor assets, resources, levels of activities by sector and in terms of overall volumes, capital accumulation and human capital. All of them bring about restrictions as they also offer opportunities at the same time.

The position is still crucial although transport and communication services, which are among the major determinants of the regional and international trade, have become cheaper especially in the last fifty years and there have been developments in communications, which were unimaginable some 20 – 30 years ago. A position relative to the major import and export gates and regions and hubs with concentrated demands is a major element which can have an impact on the success of an enterprise in terms of not only its production and distribution costs but also utilization of the benefits of the economies of scales and agglomerations and rapid adaptation to the changing composition of demand. If the region is evaluated interms of its relative position to the country's major import and export gates, it is advantageous in view of the regions in the west of a line to be drawn between Samsun and İskenderun but it is disadvantageous in view of the regions in the west of that line on a relative basis. Although there is a port in the region, this port has failed to become a port with a large business volume so far because its hinterland is small and this hinterland has a low volume of economic activities.

One of the methods for small and medium size enterprises in particular, which are positioned outside the centers of high population and activities creating economies of agglomerations, to overcome this disadvantage is to become a part of clusters. Clusters are the groups of enterprises engaged in certain industries, which are concentrated in a certain space. Companies in such a cluster produce similar merchandise or complementary merchandise for finished products. Success of a cluster depends on its ability to develop joint marketing research and joint marketing channels.

Achievement of all of them depends on mutual trust between the companies in the cluster and development of cooperation stemming from this trust. The joint decision making and implementation tradition developing mutual trust and cooperation over subjects of concern to the society in general is not at an adequate level or limited in those societies having a centralist administration tradition, the necessary environment for successful clusters has never developed or could develop to a limited extent in such societies. In any case, development of relationships of trust takes time and this accumulation of trust in the societies where clusters have proved successful is a result of works that have taken centuries to be completed.

Although the region could not offer a successful model in terms of clusters so far, as it may be rightly expected of a society having a centralized administration structure historically, there are promising developments as in the case of Çorum. In the case of societies having a weak historical accumulation in terms of collaborative relationships, it is important to develop spaces and venues which would increase face to face contacts between the actors and reinforce the habit of joint decision making as a result of assumption of common responsibilities so that developments in that direction can be reaziled. The practice of Organized Industrial Zones (OIZs) is a positive step already taken by Turkey in that direction. However, the fact that the habit of cooperation has failed to develop at a desired level points to the need to be cautious in the immediate and medium-term as a minimum over success in implementation of regional development strategies is based on development of clusters.

3.1 INDUSTRIES IN TERMS OF POSITION

It is possible to categorize the industrial activities under three groups roughly:

1. Activities for feedstock
2. Activities for markets
3. Unconnected industries

Feedstock oriented industries are the industries whereby the weight and/or volume of inputs used in production of a certain items of goods is relatively larger than the weight and/or volume of that item. Therefore, in case such enterprises are near the sources of feedstock or use multiple feedstock which results in decreases in volumes and/or weights, they are then positioned at places minimizing costs of feedstock supply and access to the market. Because the region has no major deposits of minerals other than marble and coal to a limited extent, the feedstock oriented industries has limited development opportunities except for agro industries. Although Samsun Port is a suitable venue in respect to transport for conversion of feedstock obtained regionally or from international markets into intermediary goods, this city faces the problem of offering large land plots required by such industries. The region offers potential only for industries for processing of marble, kaolin, clay and forestry products as well as agricultural produce.

The market oriented industries are those which can produce goods with much more weight and/or volume through one or several specific inputs through combination of them with another input such as water, which is usually available everywhere. Such industries can develop only in locations where demand and population concentrate. Although the outputs of such industries are distributed over a very wide area spatially in some cases, their positions are still the center of gravity for demand. Positioning of large-scale industries in the region is not probable because the region has no major concentration of demand and it is distant from the locations where population and demand concentrate. Only relatively small scale industries for local or regional demand can be established in the region. It is quite possible that in case such industries are established, those large scale enterprises benefiting economies of scales, which are established in the basic consumption centers, may end up with losing their cost advantages due to transport costs until they attain access to the region.

The third type of industries in terms of sensitiveness to transport costs relate to those industries, whereby the weight and/or volume of feedstock and intermediary inputs used in the manufacturing process are no different from the final weight and/or volume of goods actually produced. They are industries, which are independent of feedstock or markets in terms of position or in short, they are unconnected industries; they can be established on any locations providing cost advantages as long as they do not require specific labor. The outputs of these industries have relatively higher contents of price compared with the other two types of industries. These types of industries have potential for development in the region thanks to availability of cheap labor. However, because unemployment is widespread almost throughout the country and there are other regions and countries accommodating labor ready to be provided at low rates, the region must be connected to the centers of demand through rapid or reliable channels of access and some advantages such as, for instance, labor training or ready factory buildings, must be offered to founders of such industries in line with their preferences so that such industries can be developed in the region. In case the region's east – west transport connection is improved up to Gerede and certain institutional improvements are made, the region may well become a positional center for unconnected industries.

Even though some industries are independent in terms of transport costs, they have some specific dependencies; some industrial products involving advanced technology have rates of contents of very high prices; however, these types of industries are heavily oriented towards highly qualified labor and highly qualified training institutes for cooperation over research and development efforts. The spatial preferences of specialized workmanship and researchers employed by them are for those centers providing access to a varied cultural and social life. In positioning of these types of industries, the region stands almost no chance in the immediate and medium-term as a minimum.

Production of some products involving high tech may be broken down to stages. As highly qualified workmanship is needed for certain stages, this is not a requirement for some other stages. These stages are related to cheap and qualified labor and good means of access. However, even at these stages, labor, which organizes, directs and supervises production, again prefers those centers, which offer access to a varied cultural and social life as well as to a beautiful environment and nature. Even though the region can offer cheap and quality labor, it may not be said that the region is among the top rankings in terms of spatial preferences of managers and supervisory staff, namely the features sought for the second stage production of those products involving advanced technology. However, it would not be realistic to conclude that it stands no chance in this regard.

On the other hand, some final products such as cars are produced through regional, national and even global integration and components produced in different regions are brought together to obtain final products. Such industries have an oligopoly and there is a fierce competition in their markets. This is the fierce competition which leads the companies in these industries to have national and global integration. Every component is produced in a location or locations where such a component can be delivered to final product manufacturers at lowest costs including production and transport costs. Lowering costs forces final product manufacturers to concentrate on management of intermediary stock goods and operate at a zero stock of intermediary goods through a method of timely deliveries. Under such a system, proximity of intermediary goods producers to final product manufacturers, reliability of the transport system and transport costs become critically important. The region is relatively remote to the final product manufacturing centers of large oligopolistic companies and it lacks means of reliable and fast transport required by the zero stock management for such centers. Therefore, the positioning of supplying enterprises producing intermediary goods for these companies in the region is a weak probability for the time being even in the medium and long-term. However, the region has potential production of final products addressing mass targets, which are manufactured by oligopolistic companies and distributed nationwide and even globally.

Industries also have differences in terms of product cycles in respect to position. It may be said that each industrial product undergo five periods or stages: i) birth and technological innovation stage ii) stage of improving the production technology and product iii) Stage of maturation by which product and production method becomes standard iv) stage whereby imitations or equivalents of such a product are placed on the market and production and consumption thereof become massive and v) Stage where maturation and fierce competition take place.

At the first stage, the product is developed and placed on the market by a given company in a certain region. During this stage, product features and production technology are not firmly established. There is a high risk over the adoption of the product by consumers or users. At the second stage, product features are made more responsive to the requests of the customers through feedback from the users; the production method is devel-

oped such that percentages of defects and costs are minimized. Success at this stage partially depends on the tacit knowledge of company staff. At the third stage, product features closely overlap with the requests of the customers, production technology is standardized having a system subject to coding and consumption is now massive. At the fourth stage, as a result of consumption having become massive, standardization of production technology allowing it to be transferred, new producers emerge in the region where the technology had surfaced or in other regions. The fifth stage is the period when there is fierce competition on an international level in the context of an established product and standardized production technology, cutting back production costs is of vital importance and producers spread production of intermediary goods and final products to various regions and countries through an analysis of costs and they achieve integration on a global scale. Emergence of companies developing new products and production technologies in the region is not possible in the foreseeable future as a minimum due to its restricted technological capacity and accumulation of human capital. The regions having companies developing new technologies are in limited numbers in the World. In respect of product cycles, the region may claim a share only at the 4th and 5th stages of the life cycles of a product in connection with the production of a product or its components. At this stage, qualified but cheap labor and suitable production as well as transport and communication infrastructure are prominent for the producer. Although it cannot be concluded that the region is disadvantageous in terms of these criteria, it may not be said that the region enjoys a dominant advantage in relation to the regions in the western part of Samsun – İskenderun line in the country as far as any external potential investors are concerned.

3.2 GEOGRAPHY

Geography is one of the factors affecting and even determining in some cases the distribution, density and diversity of activities in space. Although a large portion of the region is mountainous and forested, two of the major rivers in the country pass through the region and the valleys and deltas formed by them allow much varied and efficient agriculture under the currently favorable climatic conditions. Setting these opportunities into motion depends on increased irrigation means and exports to some extent. For exports of agricultural produce, the region has a port and airport serving as gates to the outside world in addition to highway links. However, the region's connection to the west must be improved so that transport of agricultural produce may be made by road more reliably and rapidly.

Forests are one of the major advantages offered by the region's geography. However, because forest stocks could not be managed effectively, they have deteriorated suffering declines in their quality over time. A significant portion of the regional urban population lives in the villages inside or at the outskirts of forests; because annual cutting by them is above the annual production increases, forests lose their qualities and efficiencies rapidly. Erosion increases parallel to destruction of forests and this threatens the soil resources. It is of great importance to protect and improve forest stocks in terms of sustainable development.

Like in other parts of the country, pastures constitute the basis for animal husbandry and they are particularly important for small producers. However, their qualities have deteriorated and their efficiency declined due to excessive grazing beyond their capacities.

Institutional infrastructure is the basic issue in this regard. Although Law No 4342 on Pastures envisages improvement of pastures and grazing on them limited to their capacities, no progress could be made in this respect because it fails to introduce an effective institutional infrastructure and sanctions. Organization must be made on a settlement basis and grazing inspected effectively so that grazing is done subject to capacity restrictions. The alternatives for this may be the expropriation of pastures and renting them out for restrictions regarding certain periods and numbers of animals based on effective supervision or total privatization of pastures. The first alternative is practiced by some countries such as the United States of America, yielding effective results. However, given the overall efficacy of public administration in Turkey, it is doubted that this alternative could yield good results. The second alternative is more radical. However, this alternative is not feasible politically and socially for the time being given the fact that the rural population is still high in the region and country, that the small producers making a living through limited animal husbandry and vegetal production may be in a position not allowing them to make a living only through vegetal production if pastures are bought and controlled by wealthy segments solely. It is not possible to be optimistic over effective use of pastures when the subject is analyzed on the basis of the feasibilities of the alternatives and their economic and social advantages and disadvantages. However, this never means nothing is feasible. It may well be possible to overcome the restrictions imposed by the present institutional arrangements by means of forbearing efforts to get organized on a settlement basis, develop good models with intensive works that would not have to be repeated and demonstrate them to villagers.

3.3 FACTOR ASSETS: LAND, CAPITAL, LABOR AND HUMAN CAPITAL

3.3.1 Land

Subject to this basic classification, the region is quite rich in terms of land resources. 34,4 percent of the regional land is arable. Although some of it is composed of marginal land with high slopes, the precipitation and soil properties on the coastal strip and alluvium soil in the river valleys are quite suitable for agriculture. At present, an area of 240 thousand hectares is irrigated in the region and another area of a similar size is irrigable. Existence of a varied range of precipitation in the region allows diversified agriculture. The basic problem is to open up those irrigable areas to irrigation and check erosion immediately.

A second basic issue, which is more important, in connection with land resources relates to distribution of land between operators. The largest portion of the agricultural enterprises are far from an optimal scale in the sense of modern technology. Small-scale farming is widespread. Small farmers outside the irrigation areas in particular just make ends meet. This makes them vulnerable to risks, slowing down the spread of innovations due to the risks it exposes; as long as they fail to offer very substantial inputs beyond marginal inputs, it also cuts back the speed of spread and adoption of new agricultural techniques and products. In short, the distribution of land stocks and prevalence of small farmers create a tumbling block on the way to introduction of agricultural innovations in the region. It is not so easy to overcome this obstruction in the short run. This could be overcome parallel to the growth of operational sizes and efficiency of diffusion services thanks to the migration from the rural areas over time. It is critical to achieve effectiveness of diffusion activities to spread agricultural innovations in the rural areas under the present circumstances.

On the other hand, even though placement of some land on market as a result of migration is a necessary condition for formation of enterprises of an optimal scale, it is not adequate on its own merits. Potential buyers may not have sufficient financial means. Given this, a fund for assistance over purchase of land must be set up and medium scale farmers must be allowed to increase their operational scales through long-term credits. Although medium-scale farmers may stretch their financial means to acquire land, this would reduce their available resources which would be needed in implementation of new technologies, reducing the tempo of introduction of innovations in the region.

Another issue related to land is that enterprises comprise many parcels. Possession of a given enterprise of multiple parcels allows spatial distribution of land of various classes and product diversification depending on soil quality and properties. However, excessive increases in the number of parcels create problems over planning operational activities in respect of time and at the same time, they lead to land losses because of higher numbers of parcels. Although consolidation efforts are under way, this is implemented very slowly; as is the case on a nationwide basis, the land consolidated in the region accounts for a minor portion of total land. Apart from completion of efforts for titles and cadastres, legal arrangements facilitating the procedures must be in place for acceleration of land consolidation activities.

3.3.2 Capital

The region has capital but this capital is turned into investment outside the region through the financial system or those regional investors observing more profitable investment opportunities in other regions. Investment is a task for investors and an entrepreneur is a person perceiving profit

opportunities and taking on risks. The level of the regional risks must be reduced so that there may be a higher number of investors with a larger entrepreneurial scale. The level of risks may somewhat be mitigated by better and properly functioning infrastructure, improvement of the transport infrastructure especially on the western axis providing connections to the region and provision by the public sector of ready plant buildings, labor training and consulting services as measures to cut down fixed costs.

An entrepreneurship culture develops in the region though at a slow tempo. Today, the region even has a number of entrepreneurs deciding on investments only on the basis of detailed studies and even sending some of their staff to the United States of America for training. Regional development depends largely on the regional entrepreneurs rather than external investors alone because they are able to make use of local opportunities better. However, giving local and regional entrepreneurship dynamism and promotion of entrepreneurs are possible through the fulfillment by the public sector of the foregoing considerations to some extent.

Provision of seed money at favorable terms is one of the biggest issues faced by potential entrepreneurs. It is very difficult for those unable to raise seed money through their own means to secure such seed money in the region as is the case on a nationwide basis. The government's policy of bridging budgetary deficits through borrowing since the 1980s and a higher inflation and crowding of the financial markets as a side product of this do not only increase borrowing costs for the private sector but also make it almost impossible to create funding for investment through the financial sector. This situation may be expected to prevail in the short and medium-term as a minimum. The lack of venture capital companies in the region as elsewhere in the country makes it challenging for potential entrepreneurs to venture into businesses in the region. An analysis of the spatial distribution of venture capital companies in the developed countries indicates that they mainly emerge in the developed financial centers. There must be no reasons for Turkey not to have a different composition in this respect and it would be too optimistic to anticipate the emergence of venture capital companies in the region in the short and medium run at least and to determine scenarios and strategies depending on such anticipation.

The region started benefiting the grant funds of the European Union in the framework of the Pre-accession Financial Assistance this year. The amount of grants envisaged to be extended to each entrepreneur under these funds is very limited and it therefore lacks potential to give the region dynamism necessary for rapid growth.

The situation analysis indicates that provision of seed money will continue as a problem for potential entrepreneurs. The experiences of the successful enterprises in both developed countries and Turkey demonstrate that once an enterprise is built and has surpassed the difficulties in its preliminary stage, provision of capital for enlargement of that business does not pose any problems in case of favorable market conditions. Successful businesses fund their expansion largely through their profit. In addition, there are channels of securing funding made available by the financial markets to such companies at favorable terms and conditions. It appears highly probable that the issue of securing seed money would persist especially for those of the potential investors in the region, who have failed to achieve this by their own means. It would be natural to have repercussions of this on the rate of growth.

3.3.3 Labor and Human Capital

From an overall perspective, labor is the third factor of production. The region enjoys abundant labor and because there is no sufficient employment and revenue generating means in place, the region suffers heavy out-migration continuously.

Hidden unemployment is prevalent in the rural areas particularly.

However, it is human capital, which is the quality and contents of labor and is as important as the volume of labor today. If we treat educational level as a measure of human capital, the existence of human capital in the region is not so promising although it is not so bad either. The rate of illiteracy has always fared at levels higher than the nationwide average. In particular, the rates of female illiteracy are higher. There are still so many problems although there is improvement in this regard. Enrollment rates are close to the nationwide averages especially at the primary and secondary education levels, which have the highest social contributions. However, problems still persist over the rates of enrollment for girls as the rates of enrollment remain at rather low levels in the case of pre-school and higher education. The region looses part of its trained labor and human capital to selective migration.

The present human capital distribution is problematic in terms of development. According to the data for 2000, of total employees in the agricultural sector, which is one of the critical areas for regional development, 23,5 percent is illiterate; although 10,2 percent is literate, they do not hold any certificates of graduation from any schools as 57,3 percent received education only at a primary education level. Only 0,32 percent of employees in the sector is graduates of higher education. Low human capital available in the region causes an obstruction to introduction of innovations in the region though not as a primary culprit; more importantly, it leads to problems over correct and effective use of any innovations already introduced. Some of these major issues are: inappropriate administration of herbicides/pesticides and fertilizer, erosion resulting from wrong soil processing techniques and soil and water contamination.

The provincial directorates suffers a similar situation: 57,4 percent of employees in this labor branch is accounted for by primary education graduates; the rate of higher education graduates employed by this sector is only 4,1 percent. This is not a promising development in terms of monitoring, transfer, effective application of developing technologies or development of any new technologies. SWOT analyses also yield such a conclusion. Lack of qualified staff is one of the major issues facing the sector and this factor does not apply for this sector solely.

Holders of much human capital and higher education graduates largely concentrate on the financial sector and social services. Even though this is a positive situation in terms of the quality of services provided, it must be kept in mind that having received higher education does not necessarily mean complex human capital all the time and that therefore, the quality of services extended by this segment may also be inferior.

Acquisition of upper level human capital is through universities. Based on an overall evaluation, the situation of the regional universities is not at a desired level. Although the number of students per lecturer varies according to universities and faculties, it is between 45 – 50. They are very high numbers, pointing to the fact that instructors have little time to spend on research and development activities apart from instruction. There is a need to be cautious over the issue of cooperation between universities and industries unless staffing is increased with higher qualifications.

The changing population profile is an element that would affect the availability of labor in the region in the medium and long terms. The base of the population pyramid has begun narrowing, with the central section enlarging in the provinces other than Tokat as a result of the declining fertility rate; therefore, the rates of youths and dependency have begun dropping. The rate of youth dependency which was 75,97 percent in the region in 1980 fell to 62,57 percent and 48,05 percent in 1990 and 2000, respectively. This means an in-

crease in the rate of population at the age of work. In case sufficient employment opportunities cannot be created, a faster development process may be experienced in the region due to the demographic developments because savings rates may also increase due to the decline in the dependent population versus an increase in the volume of labor. The region experiences the demographic transition stage like many other regions in the country. This is a singular factor which occurs in the history of every country and region only once and it has repercussions on the entire socio-economic life beyond the population combination.

The sole adverse effect of this development in the population pyramid is its potential impact on the agricultural sector. Following the swelling of the central part of the pyramid in the rural areas, hidden unemployment will soar in the rural areas and some of this segment having hidden unemployment will migrate to the intra-regional cities as well as places outside the region. There will be a relatively older group in the rural areas. Apart from the fact that the behavior by this older group will be probably more conservative towards innovations, supply of labor and intensity of labor supplied will decline. In case this would not be a supply of innovations finding easier recognition by the older and conservative segment, it would unavoidably reflect on efficiency and agriculture would relatively grow more slowly as a result.

3.4 CULTURAL HERITAGE, NATURAL ATTRACTIONS AND TOURISM OPPORTUNITIES

Tourism has become a major field of activity in the economies of some regions in the last 10 – 15 years. The region possesses rich historical and cultural heritages as well as numerous natural attractions. However, based on an evaluation of the subject from the perspective of demand, it is observed that there are some limitations as to the emergence of tourism as a major sector in the region.

A large portion of tourism directed to Turkey is of a massive nature. It is mainly directed to the Aegean and Mediterranean coastlines as well as to the historical sites located in the hinterlands of these coastlines. In particular, the ratio of tourists arriving to see historical and cultural heritages to the total figure is low. The region is an area with potential to attract such tourists. However, because it is disadvantageous in respect of sun, sand and sea which mainly attract tourists in other regions, the region may attract a minority of a large group, which is solely interested in history and culture.

In this regard, Ankara's position relative to the region creates negative externality. The monuments and historical ruins from the Hittites are the major elements that attract and may attract foreign tourists. Such tourists are in a position to visit the region on daily tours from Ankara. As they do not include accommodation in the region, such tours have minimal impact on the local economy. The number of cultural tourists may increase in the future. However, unless visitors to the Hittite monuments prefer to visit the Ottoman and Seljuk works of arts in the northern part of the region, it is a high probability that the regional economic impact of tourism would remain limited.

It is difficult to attract foreign tourists to Amasya, Tokat or Çorum to visit Ottoman heritage there because interest by tourists visiting Turkey in the works of the Ottoman civilization excluding several of them in Istanbul is low. This has little probability to change in the near and medium-term due to the cultural reasons in particular. The number of foreigners visiting in Selimiye Mosque and its complex of buildings in Edirne is not a noteworthy figure compared with the visitors to Ephesus, for example, despite Edirne's proximity to Istanbul, which is one of the major tourism centers.

The situation is slightly different for local tourists. Although the negative externality of Ankara's position on the region maintains its effect as regards local tourists, there is recently an increasing tourism movement to the high plateau and cultural tourism, particularly in the Eastern Black Sea Region. The region may receive an increasing share of this movement thanks to its historical and cultural heritages and natural attractions as well as its position on the route of the Eastern Black Sea Region.

On the other hand, the hot springs in the region do not have the potential to attract more tourists from outside the region. There are many thermal resources in Turkey and such resources are scattered throughout the country. Because the regional thermal resources do not have any distinctive features that would attract tourists from other regions, it is a high probability that thermal tourism would be limited to the region only and that it may not attract demand outside the region.

3.5 FOREIGN ECONOMIC RELATIONS AND INTERNATIONAL DEVELOPMENTS AND THEIR POTENTIAL IMPACT ON THE REGION

The major international economic and political developments which have already started affecting and will continue affecting the region in the future are the following:

- Establishment of the World Trade Organization (WTO) and rules imposed by it
- Rise of China as a major global economic power and its membership to the WTO
- Turkey – EU Customs Union and Turkey's acquisition of the status as a candidate country for the EU and
- Disintegration of the Soviet Union and establishment of the Commonwealth of Independent States (CIS)

WTO rules envisage that tariffs be lifted gradually, that subsidies and quotas be phased out over time, that the import restrictions on agricultural products be converted into tariffs and that agricultural supports in the developing countries do not exceed 10 percent of the production values of products. In the framework of these rules, the quotas on textile and ready-wear products were lifted from 2005 and China's exports of such products have started making its impact felt on all the countries including Turkey. The WTO rules have sharpened competition on a global scale, leading to major positional movements in industries based on cheap labor in particular. As a result, the competitiveness of many less developed countries such as Turkey in industries based on labor which is relatively cheap for those countries where such labor is expensive has narrowed and even disappeared. For instance, international companies like Marks & Spencer and GAP can employ female workers for a monthly salary of 45 Dollars in Cambodia, marketing products produced there on a global scale. All these developments are a threat for all the less developed regions including TR83. TR83 and similar regions as well as any industries based on cheap labor may compete only at higher efficiency and non-stop renewal of their technologies to this end and employment of more trained labor.

The WTO rules prohibit subsidies conditional on export performance and use of locally made products in place of imports, permitting subsidies only for research and development, support of less developed regions and environmental protection. They are positive in terms of subsidies to be extended to the region.

Even though the lifting of quotas and reduction of tariffs in the framework of the WTO rules offer opportunities for regional exports, they also pose threats. Because cheap labor would be critical for some unconnected and labor intensive industries that could be developed in the region and there are regions supplying much cheaper labor in the world, the region's chance in such industries rapidly decreases, if it does not vanish.

The Turkey – EU Customs Union which was set into motion in 1996 is undoubtedly the most important international development for the country and region alike economically. The Customs Union has created opportunities as well as threats for the region. One of such threats is the fact that in the case of production to be made for the EU market, the relative superiorities of the regions in Turkey in terms of position have changed. As the relative superiority of the Marmara region in particular and also that of the Aegean region to some extent have increased, the relative superiority of other regions including Region TR83 has declined. The increasing industrial concentration in the Marmara Region after the Customs Union is the greatest sign of this. Concentration has also increased in the services sector in the same region. The region may overcome its disadvantage relative to the Marmara Region through improvement of its transport link to the west and faster and more reliable road and air transport to some extent as

noted earlier.

A major threat for the region is that the Turkish market is now increasingly becoming more open to animal origin products in particular. Unless enterprises, which can make a better use of the economies of scales and farm animals of better breeds are established and pastures are rehabilitated to allow grazing only up to their capacities reducing production costs for small scale enterprises, regional animal husbandry will not be able to compete with EU products, declining gradually.

The greatest opportunity offered by the Customs Union is that the EU market opens up to Turkey. This is particularly very important in terms of production of fruits and vegetables. The regional climate permits production of a rich variety of fruits and vegetables and relatively late maturation of fruits and vegetables grown in the region as compared to the countries on the Mediterranean climatic belt, which are included in the EU, thanks to its climatic characteristics offers the region certain seasonal advantages.

Benefiting from EU funds is the most substantial opportunity offered by Turkey's status as a candidate country for the EU. Pursuant to "Agenda 2000" document, these funds are used for disadvantageous regions for reduction of inter-regional economic inequalities as well as for regions not having strong labor markets. The policies of "Agenda 2000" may be expected to continue in the future although it highlights different consideration thereof.

The major components of the EU's strategy designated for elimination of inter-regional inequalities are: a macro economic policy targeting at sound economic growth, a structural component for sound operation of the labor market and a territorial component aiming at reinforcement of initiatives on a regional/local level. The main headings of the programs, which will be implemented according to this strategy and also applies for the region, are:

- Infrastructure development (Infrastructure related to transport and energy networks, pipelines, digital communication networks, water resources and waste management, etc.)
- Support for enterprises (Technological renewal requirements of the SMEs and development of research, industrial co-operation, communication and human resources)
- Education and learning (development of human resources and particularly promotion of integration of youths, females and persons facing a threat of social exclusion with the labor market)
- Environmental protection (safeguarding environment particularly as part of plantation of agricultural produce and development of tourism)
- Research and development (bridging the technological gap by making use of the dynamism to be provided by scientific events)
- Local development (increasing local resources and promoting entrepreneurs)

The EU lets the member countries and candidate countries benefit from its financial instruments called "Structural Funds" and "Adaptation Funds" and "Pre-accession Financial Assistance" in the framework of its regional policies, respectively.

- About one third of the financial resources envisaged to be allocated by the EU for Turkey in the period of 2004 – 2006 has been earmarked for the activities under PNDP related to Economic and Social Adaptation. This share is likely to be effective in the future as well. The plan envisages use of these resources for Development Axis 3 titled "Improvement of Infrastructure Services and Environmental Protection." It appears that such resources are not adequate for large scale projects.

Some of the PNDP priorities are also important in terms of the regional development strategies. They are:

- Development of waste water treatment and solid waste disposal facilities in the cities
- Overcoming the organizational inadequacies in the rural areas, attachment of importance to education addressing adults in particular and reinforcement of institutional structures that would eliminate shortcomings of the information system in a sustainable manner
- Improvement of rural living quality and protection of biological diversity and cultural heritage

Reinforcement of the railway network, which is one of the PNDP priorities, emerges as a strategic decision in terms of Region TR83 as well particularly because it also aims at supporting Samsun Port and development of a direct and strong railway link to the west with/via the Central Anatolia although it is a decision of a national scale.

The disintegration of the Soviet Union is yet another international development affecting the region directly. This fact leads to important opportunities in Turkey's trade with the newly established countries in its north and east. Feedstock and semi-finished products (timber, scrap iron, cereals, coal and more importantly, natural gas which has just started being supplied) imported from these countries have allowed a series of industrial establishments to commence operations in the region.

Exports made to these countries in larger volumes steadily lead to certain revival. Samsun Port has begun having a significant part in exports to Russia and the Turkish republics in Central Asia via Russia. Major products exported from the region include: fruits and vegetables (particularly, fruits and vegetables originally shipped from the Mediterranean Region and transported to their final destinations via Samsun with Ro – Ro lines), various foodstuffs and cleaning agents, automotive industry products and construction materials.

As a result of these developments, demand for the production sites within Samsun Free Zone has now increased. Samsun Port is capable of handling 3 million tons of goods, which is its total capacity, thanks to the present equipment it owns. Commercial relations with Russia as well as with Central Asia via that country are the external developments having the greatest impact on Samsun and on its hinterland consequently. This situation offers much potential for all the sectors in the region.

3.6 LOCAL OPPORTUNITIES AND PRIORITIES

Table 3.3.3.1 provides the findings of the SWOT study on the local opportunities and local people's priorities. These studies are a summary of all the studies conducted by the DPT initially in 5 districts apart from 14 provincial and district centers later on as part of the project.

Although SWOT analyses are very helpful with identification of policies to be followed in connection with opportunities, threats, weaknesses and strengths and solutions to problems on the basis of the perspective of local people, there is a need to treat some views expressed in this regard with caution.

Above all, the proposals made lack any financial concerns. They also lack a concept of benefits and costs and a ranking of priorities. Therefore, some of the proposals are merely good wishes.

Another consideration that must be noted as regards SWOT analyses is that they are just internal evaluations, that matters may present us with quite a different appearance when they are taken up on the basis of wider perspectives and present and potential developments in both Turkey and the world and finally that those perceptions as strengths may eventually prove otherwise. Thirdly, the recommendations made for minimization of threats or weaknesses just make generalizations on how to achieve this rather than being specific. The considerations noted here concern the SWOTs for not only the region but also other SWOTs.

Table 3.3.3.1 Evaluation of the Regional Advantages and Bottlenecks

Strengths	Approaches to improve the strengths
• Suitability of the climatic conditions for any kind of agricultural produce (excluding citrus aurantium)	• Promotion and diffusion of alternative agricultural produce with high added values, which are oriented for foreign markets and industries
• Availability of fertile and large arable land	• Not allowing this fertile land to get narrower due to problems such as drainage, salinity, etc.
• High irrigation capabilities	• Providing irrigable land with irrigation
• Presence of suitable environment for production of aqua products	• Promotion of production of aqua products with high added values in the present rivers, lakes and lagoons
• Presence of forest stocks in excess of the nationwide average	• Protection of vast forest stocks and ensuring that regional people make an optimal use of forestry products
• Availability of a rich variety of agricultural produce for processing	• Encouragement of specialty production and development of high efficiency
• Presence of specialty farms experienced in plantation of vegetables, which are engaged in farming on contract	• Encouragement of integration of agriculture with industries through farming on contract
• High energy generation capacities of water resources	• Construction of planned energy structures by the private sector
• Presence of mineral (marble and lignite) and geo-thermal resources	• Development of policies particularly addressing development of mining, particularly marble deposits and geo-thermal resources
• Presence of opportunities for "specialization" in industries based on natural resources in the region.	• Support of development in any locations having nuclei and development of policies for formation of "clusters"
• Presence of a group of entrepreneurs in the region who are entrepreneurial and open to changes with a track of success	• Arrangement of training programs for development of entrepreneurship

● Adequacy of regional capital for investment	
● Continued interest in the region by the businessmen originally from the region who now live in the cities such as Istanbul and Ankara	
● Availability of experienced labor in the region, which is willing to work	● Implementation of policies increasing employment, particularly qualified labor employment and preventing unemployment as well as on-the-job training programs ● Support of education, establishment of liaison between education and the business community and achievement of integration of youth and females with the entire economy through cooperatives and other new employment areas ● Improvement of the overall educational and technical training levels in the region, achievement of an increase in the numbers of higher education schools, vocational higher education schools and research institutions as well as enhancement of the educational quality in the universities
● Presence of universities and affiliated HSs (Higher education schools) and VASs (vocational higher education schools) and positive impact by these institutions on their environments for development	● Achievement of the relationship of the universities to the regional development issues and an increase in cooperation programs
● Presence of a port city in the region, which could play a significant part in global trade and the fact that this city and its port ensures Central Anatolia opening up to the Black Sea.	● Achievement of development of Samsun Port as an important export outlet
● Presence of a favorable urban order of leveling in the region	● Development of a new settlement space/policy so that the urban leveling may be more stable through reduction of concentration at the lowest steps of the urban leveling
● Presence of an urban historical fiber in the region	● Having records/inventory of cultural and natural heritages, increasing tourism revenues and developing new and original accommodation facilities (such as inns) as well as new fields and facilities of services
● Presence of rich natural and historical heritage embellished with mountainous terrain, coastline and historical sites, some of which are protected under international agreements, as well as resources suitable for theme tourism	● Development of policies for protection of historical and natural heritages by considering the development of tourism
	● Reinforcement of local organizations including Yeşilırmak Basin Development Union, chambers and non-governmental organizations and enlargement of their fields of activities and enhancement of their pioneering initiatives and roles in provision of services and improvement of policies and practices for reinforcement of the understanding of governance

Weaknesses	Approaches for reduction of weaknesses
• Presence of erosion risks	• Development of erosion reduction projects on a basin basis and scope
• Deforestation, serious environmental problems caused by contamination of air, water and soil arising from industries and animal husbandry in both rural and urban areas as well as from urban wastes	• Development of special programs for protection of the regional forestry stocks and reduction of erosion, promotion of establishment by municipalities of joint ventures or development of individual solutions for solid waste and waste water management (as applicable for the type of problems)
• Pressure by the excessive population in the rural areas	• Development of programs addressing new comers to cities based on the projection that the trend of migration from rural areas is to continue in the foreseeable future, especially with an emphasis on that segment of population employed by agriculture known as "hidden jobless" at low efficiency and/or development of schemes which will provide the rural population with employment in sectors outside agriculture
• Use of arable land for inappropriate objectives	• Development of policies for prevention of inappropriate use of fertile arable land on the coastline in particular
• Failure to accord due importance to drainage	• Use of present fertile land by considering the threats of salinity and erosion and development of drainage infrastructure
• Wrong and unnecessary use of fertilizer, inappropriate administration of herbicides/pesticides	• Development of policies which will render effective dissemination efforts aiming at preventing product losses and wastes stemming from inappropriate irrigation and unconscious administration of fertilizer and herbicides/pesticides
• Lack of interest by farmers in pollution issues, soil analyses, agricultural dissemination and training	• Limitation and prevention of losses and pollution starting in agricultural areas parallel to urbanization, industrialization and modern agricultural techniques; reinforcement of training/ dissemination efforts on the issues of production to prevent farming techniques from inflicting damage on nature and consumers, development of present analysis laboratories and building awareness of farmers on soil analyses offered free of charge
• Irrigation infrastructure is obsolete or inadequate	
• Agricultural enterprises are of an inappropriately small size	• Acceleration of consolidation works to obtain optimum enterprises sizes which would achieve efficiency in agricultural production and cooperation with the non-governmental organizations to this end, promotion of optimal enterprise sizes, development of programs for rationalization of irrigation organization and management and reinforcement of the organization of farmers to overcome marketing problems
• Multi-fragmented composition of land and slow progress on land consolidation	• Reinforcement of pursuit for intensification of agricultural production where enterprise sizes cannot be enlarged
• Agricultural practices stemming from inadequacies of technology, irrigation and organization, which lead to low demand and revenues in the rural economy and unfavorable marketing mechanisms	• Development of new local, national and international markets as well as farmers' unions and increasing rural revenues through implementation of modern agricultural methods
• Severity of winter conditions in mountainous areas, harsh climatic conditions and areas with inadequate precipitation	

• Old age of population employed by agriculture and obstruction caused by the old age labor and resource inadequacy for efforts aiming at increasing rural revenues	• Efforts to be made in connection with the lower steps of the leveling of settlements
• Failure by the unions and cooperatives to be effective	• Performance of particular studies on levels of effectiveness and techniques for their development and relevant policies depending on the types of unions and cooperatives
• Regression of animal husbandry	• Development of a special program for prevention of regression of animal husbandry in the region and acceleration of transition to the model of farming on contract
• Inadequate production of unprocessed fodder	• Increasing production of unprocessed fodder
• Lack of a live animal exchange	• Support for development of organized livestock fattening and live animal exchanges
• Inadequate entrepreneurial spirit	• Ensuring that industrialization opens up to foreign markets and national markets by raising the entrepreneurial spirit and supporting SMEs; completing shortcomings of SIEs in connection with infrastructure and waste disposal and support of them over organization
• Very slow industrialization	• Increasing the number of SMEs aiming at training and development programs for development of management skills in the fields of marketing and quality in manufacturing and services
• Inadequacy of organized action and social cooperation	• Promotion of development of organized civil society
• Industrial workplaces are generally very small and operate with obsolete technologies and low efficiency	• Promotion of enlargement of average enterprise size in industries to increase efficiency, make use of economies of scales and increase competitiveness • Development of programs so that institutions providing credits to the SMEs and facilitating investments are more effective in the region
• Low service quality brought about by inadequate business volume in transport and lack of trust over accessibility	
• Bank deposits fail to turn into investment in the region	• Development of financial programs to channel savings presently utilized as bank deposits into investment
• Increase flee of capital from the region	• Ensuring that entrepreneurs bring capital and technology to the region
• Lack of trained staff in all the sectors	• Development of employment institutions which will regulate the relations between technical training and labor and ensuring that new employment policies are developed through participatory methods in a diversified structure
• Shortage of qualified staff	
• Employment sectors are limited for educated younger population	
• The trend of the educated/qualified younger population to leave the region (selective migration)	
• Failure to adequately cope with problems related to construction development and urbanization in the cities with scientific approaches	• Development of urbanization and urban transformation policies by considering their peculiar characteristics and ensuring that local administrations are careful and prepared over demographic urbanization
• Deterioration of nature, failure to protect historical and cultural assets and inadequacies over promotion	• Development of promotional policies for the region and ensuring reinforcement of the tourism sector and development of protection policies for present historical sites and archeological sites in the cities

● Inadequate supply and promotion of facilities in the tourism sector	● Planning the developments related to the tourism sector on an integrated basis under a staged approach in line with development of local tourism in the first instance and preparing it for outward orientation later
● A large portion of the region cannot benefit services and there are problems due to distance to the main markets	● Improvement of communication and transport infrastructure as well as development of new infrastructure to ensure closer ties between the markets and the region
● Local unions, partnerships and non-governmental organizations have not developed adequately	● Support for development of civil society in the region and ensuring development of an understanding favoring governance
Opportunities	**Approaches to develop opportunities**
● There is potential for irrigation to be doubled given the present inclusion of irrigation purpose dams and lagoons in DSİ portfolio of projects when those planned areas become irrigable	● Determining the public investment priorities and monitoring the improvement
● Presence of conditions in the region, which are suitable for agriculture of products with export potential (eggplants, okra, etc.)	● Providing the organization suitable for the exportation of okra, artichoke and other products in the region.
● Inclusion of three provinces (Amasya and Tokat and also Çorum in the lower rankings) in the scope of Law No 5084 and inclusion of the four provinces in the List of Priority Regions	● Utilization of the opportunities related with the incentives rationally (for all economic sectors) but preparing a structure with a progressive transition which can counteract the incentives without losing the target for reaching a competitive structure in full competitiveness conditions. ● Promoting the activities intended for innovations in close collaboration with universities, schools, research institutes and private sector at local, national and international levels. ● Monitoring and adopting the technological development in the world, implementing research and development, considering to direct the opportunities to application and employment.
● Strong potential for theme tourism such as high plateau tourism and mountain tourism	● Applying preventive policies intended in nature and wild life completely, preventing the environmental standards at top level,
● Crossing of some of Turkey's eastern – western and southern – northern basic axes via the region and increased importance of the basic axes	● Preparing and applying transportation and communication programs which develops and modernizes the transportation and communication infrastructure.
● Turkey is a member of the Black Sea Economic Cooperation	● Developing programs like trade and special aimed tourism and environment with the countries of Black Sea Economic Cooperation.
● EU funds are available	● Monitoring Turkey-EU integration in a structure which can provide more benefit for the region and providing the resource utilization regarding the models of other countries. ● In the region (at functional level) preparing special programs for different kinds of people in order to develop the capacities of foreign language use and communication development in foreign language.

Threats	Approaches concerning threats
● Creation of social problems as a result of restrictions imposed on the plantation areas by the laws on sugar, hazelnut and tobacco	● Provision of technical support and training to those producers suffering income losses due to the law on sugar, tobacco and hazelnut over plantation of alternative products having added values
● Decline in production of certain agricultural products as a result of imports	● Support of development of a competitive structure with high efficiency in the rural areas with policies of population/settlement, technology, training and environment because customs protection for agriculture will gradually decrease
● Delay in and incompletion of investments initiated by DSİ	● Selection of priority projects and fast completion of priority investments only by considering the fact that a high number of investments/investment projects initiated by DSİ cannot be realized all at once rapidly ● Provision of necessary technical support for building local capacity over the transfer of irrigation systems to users
● Impact on reforms of agriculture and investments by high public borrowing costs and less developed financial infrastructure and failure by the public sector to allocate adequate funds for investments	
	● Development of convincing expectations for development by ensuring participation by the regional communities in the region; extension of new areas in line with global technologies thanks to developments in the sectors of industry and services; encouragement of younger population to stay in the region in particular
● Continued dependence on public monopolies for products such as tobacco and sugar ● Exclusion of one province (Samsun) in the scope of Law No 5084 on Incentives	
● Impact on the environmental ecology by contamination originating outside the region (particularly by rivers and sea), radiation and climatic changes	● Introduction of regional pre-emptive measures against environmental and water contamination which will reach larger dimensions in the future; constant monitoring of fulfillment by other countries and regions of their commitments pursuant to the international conventions (both on a nationwide and regional basis) to mitigate any environmental and ecological threats that may be posed outside the region
● Emergence of environmental deterioration in locations accommodating sustainable agricultural and industrial practices due to excessive migration	
	● Establishment of a participatory monitoring and evaluation system ensuring that the construction development and zonal physical plans of regional settlements are maintained under constant control by the regional communities
● Location of the region on the Northern Anatolia Fault Line	● Establishment of a participatory monitoring and evaluation system and complete implementation of the earthquake and disaster management regulation so that all the development activities and new settlements in TR83, which is located on Turkey's most active earthquake belt, are kept under supervision due to risks of disaster and earthquake

3.7 SECTOR ANALYSES

The production activities processing the regional natural resources become more and more effective. They are: production and processing of agricultural products, industries based on the regional mineral resources and ready-wear/textiles and machinery industry employing labor in the region. Nuclei of some sub-sectors, which have not yet claimed a substantial existence in the region but are strongly expected to have rapid growth in the future, have began to be noticed. They are: medical instruments production concentrating in Samsun and machinery manufacturing and sanitary tools manufacturing industry which has started developing in Çorum.

3.7.1 Agriculture

The regional soil, irrigation and climatic conditions are quite favorable for agricultural production. Regional farmers are receptive to the world and innovations. The region enjoys comparative superiority over Turkey's other regions and major global producers for some agricultural products which are extensively used.

The agricultural sector studies and meetings held in the region demonstrate that there are two alternative growth routes for the agricultural sector. What is closest to the past trends as far as these alternatives are concerned entails increases in the production and added values by the sector through irrigation and efficiency increases by preserving the past structure. As part of the development in this direction, cereals and industrial plants will maintain their relative importance as productive significance. However, there will be specialization in production made for markets outside the market at increasing rates and this will lead to a shift to production of fruits and vegetables.

A second potential route of development would involve steady reinforcement of a structure of a type of "farming on contract." Some producers with a good standing in Turkey's national markets for processing industries are already engaged in agro industrial production in the region. There is a considerable production for processing purposes as far as products such as cherries, sour cherries, apples, peaches, peppers and beans are concerned. Apart from these products, several other products (tomatoes, cabbage, eggplants) are exported freshly (to other regions in Turkey or abroad). The model for production on contract is also a basis for development of animal husbandry for milk production and poultry. This line of development has two major differences as compared to the trend of development above. A production pattern dominated by fruits and vegetables is more labor intensive. The demand for labor which is estimated at 120 million/persons/day will have the highest increase as a result of the development defined above.

The second major difference relates to the income level and distribution. The minimum effective scale in labor intensive activities is smaller and relatively, medium and sub-medium size enterprises may effectively compete in the market. However, a production structure in that route develops in locations close to the markets and main transport arteries. This approach improving the income distribution between different enterprise sizes will probably adversely affect the intra-region income distribution to the detriment of the villages inside or at the outskirts of forests.

A substantial drive must be expected in the agro industries in case of both developments outlined above. As a result of the present structure being rendered more effective, there will be substantial developments in industries involving cereal processing, fodder industry, foodstuffs (sugar, soft drinks, canned food) and animal husbandry products (slaughterhouses, meat and milk processing).

Under the model of production on contract, processing of fruits and vegetables and packaging will have an impact of expansion on agro industries similar to the one referred to above. The demand for agricultural inputs under this second development is more intense compared to the first and it may lead to substantial growth in the industrial sub-sectors providing inputs for agriculture.

3.7.2 Industry

Food industry tops the sub-sectors where an increase is expected in the industrial production. This sub-sector has the largest weight in terms of both employment and national income. The growth in this sub-sector depends on the growth to be observed in agriculture. There is one more resource of much significance which supports growth in this sub-sector. This relates to the processed portion of agricultural production. The table below provides the production levels of some products suitable for processing in the region as well as the processed volumes of these products.

Table 3.7.2.1 Regional Agricultural Products Production and Product Processing Capacity, 2003

	Production (tons)	Processed products (tons)	Processed products (percent)
Wheat – flour, macaroni	1 307 360	994 891	76,0
Pulses	134 915	60 166	44,5
Oily seeds (sunflowers)	60 883	3 061	5,0
Vegetables (okra, beans, cucumber, cabbage, potatoes)	695 977	9 963	1,4
Tomatoes	865 348	11 892	1,3
Food preservation (vegetable)	740 025	44 235	5,9
Fruit juice (sour cherry, peaches, apples, grapes)	218 862	6 090	2,9
Meat (cattle, water buffalos, sheep, goats)	26 602	9 333	35,0
Milk (cow, sheep, goat, water buffalo)	448 581	120 615	26,9
Fodder (corn)	194 831	160 170	82,2
Oil plants (soy)	21 978	3 061	13,9

Source: DIE (2004-6), Sanayi ve Ticaret Il Müdürlükleri Verileri (2004).

As seen in the table, a very minor portion of agricultural products is presently processed by the agro industries for a variety of reasons. The processing level of agricultural products is affected by many factors such as: production just for making a living, unbearable burden of the instances of illegal operations – or compliance with laws, standards of processed products being in excess of the purchasing power of many consumers and unsuitability of some types of products for processing. Regional milk processing is a striking example of this: only 25 percent of the regional milk production is processed by the milk industry including dairies. Although the government pays a premium to the producers selling their products to the registered processing industry, at a rate of about 10 percent of product value, this situation faced by the processing industry makes the phenomenon more striking. As a result of the income increases expected in the region, food safety practices which will be imposed by Turkey's EU membership and reduction of the burdens on the registered enterprises over time, almost the entire increase expected in the production may be anticipated to be processed at least in the case of the products covered by processing.

Marble, clay and kaolin have an important place among the local feedstock providing inputs to the industries in the region. 'Specialization' is expected in these industries which presently produce tiles, bricks and marble blocks. Discouragement of investments in this capital intensive field by high capital costs and expensive energy are the two major factors preventing production of final products rather than marble blocks. Production of quality ceramics, sanitary equipment and vitrified products are the next stage in the industries based on stone and earth.

Manufacture of machinery components providing inputs to these industries in the region and packaging will continue growing depending on the group above. Production of significant proportions is made by certain sub-sectors where the region's

relatively small market allows production on a minimum scale. Production of agricultural machinery and metal articles and plastic products produced for the regional market may be cited as examples for them.

3.7.3 Services

Wholesaling and retailing are the focus of the services sector in the present structure. This structure must be expected to change in favor of specialized individual and business services. Similarly, it must be remembered that components such as information technologies, gene and other service technologies will have more and more weight in all sectors of the economy in both the region and the world.

In determination of the sectors and sub-sectors, which will have a driving part in the regional economy, the present sizes and growth potential of these sub-sectors must be considered. Added values generated and employment are two basic criteria in connection with present sizes. However, these two criteria may lead to very different interpretations particularly in the industrial sector.

3.8 ANALYSIS OF THE PIONEERING SECTORS IN THE REGION

3.8.1 Regional Input-Output Analysis

An analysis of the table of inputs and outputs determining the production composition of the region is an alternative approach to identification of the pioneering sectors. For this purpose, a series of studies have been made. The method employed for identification of pioneering sectors in the Eastern Anatolia Region has been repeated. This method employs two index values in identification of pioneering sectors. The first index is an index of "retrospective connections." This index identifies those sectors demanding largest intermediary goods from the producers in the region by calculating the production value.

The second index is an index of "proactive connections." This index ranks the sectors which produce products used by other producers in the region as intermediary goods.

A study has been made to identify the priority sub-sectors in Region TR83 with the same method because it allows comparison. The situation formed according to the index of retrospective connections (and the index of connections calculated) has been found for the major sub-sectors as follows: wooden industries (1,39); basic metals industry (1,23); manufacture of motor vehicles and trailers (1,22); clothing (1,01); furniture manufacture (0,92); textiles (0,84); and fruit production (0,84).

According to the second criterion called "index of proactive connections," the ranking of the sub-sectors with a major portion of their inputs being used by other regional producers as intermediary goods is as follows (with their index values): iron and other metals (1,76); mineral coal (1,44); wooden products (1,30); non metallic mineral products (0,95); foodstuffs (0,84); fruit production (0,84); clothing (0,81); vegetable production (0,76); sheep farming (0,76); and fishing (0,72).

The data contained by the table of inputs and outputs on two subjects have been found very useful and they have been considered in selection of the pioneering sectors. They are the data on the added value ratios of the sub sectors and the portions of production sold outside the region. The table below provides these characteristics. According to these criteria, the priority groups of goods are: fruits, animal origin products, textiles and manufacture of metal articles.

3.8.2 Analysis of Incentives

The incentives issued in the past are an indicator of the degrees of perception by the regional entrepreneurs of the regional potential and also of the sectors in which the region has potential indirectly to the extent permitted by the incentives system. In order to be able to determine this indicator, the incentive certificates received by the region between 1980 – 2003 have been examined.

Half of the incentive certificates received in the indicated period is for the manufacturing industry. The remainder is almost entirely for the service and agriculture sub-sectors. As far as services are concerned, concentration in on transport (TIR fleets). Health and educational investments in Çorum and Samsun and tourism oriented investments in Amasya have received incentive certificates although they are low in number. The agricultural sector investments are comprised of animal husbandry investments as well as by a small number of greenhouse and fishing investments.

The ranking of the incentives issued for the manufacturing industry in terms of sub-sectors are quite consistent with the results of the sector analysis. The ranking of the incentives on the basis of sectors is as follows: food, quarrying and earthen based industries, weaving and ready-wear and machinery manufacturing industry. This ranking

Table 3.8.1.1 Table of Regional Inputs and Outputs: Added Values and Production and Export of Final Products Outside the Region

(YTL at 2003 Prices)

	Production value	Use of intermediary goods	Added value	Total regional imports (from Turkey and the world)	Total regional exports (to Turkey and the world)
Cereals (wheat, barley, rye, corn, etc.)	696 684 908	186 948 235	509 736 674	131 049 906	244 635 020
Rice		5 904 955	21 516 438	4 630 477	4 871 251
Leguminosae (board beans, chickpea, lentil, etc.)	84 736 655	29 647 704	55 088 951	12 988 798	25 276 302
Tobacco	72 737 941	17 877 848	54 860 093	12 444 819	10 681 373
Sugar beet	104 388 076	26 878 522	77 509 554	14 722 115	0
Other industrial plants	2 576 687	1 500 541	1 076 146	693 543	453 906
Oily seed plants (sunflower, sesame, hashish, etc.)	16 610 665	5 143 637	11 467 028	3 525 689	1 116 140
Round and swollen plants (onion, garlic, potato)	159 658 195	72 646 351	87 011 845	37 378 409	38 841 817
Fodder plants (corn, common vetch, clover, etc.)	27 908 101	13 133 472	14 774 628	7 738 113	1 645 258
Vegetables (cabbage, tomato, melon, watermelon, etc.)	546 363 350	112 666 851	433 696 499	20 909 553	267 294 678
Fruits (aple, pear, apricot, cherry, walnut, etc.)	322 884 076	41 546 438	281 337 638	4 768 797	153 725 967
Cattle	413 270 904	153 838 216	259 432 688	5 549 930	253 918 663
Sheep	172 787 806	84 471 038	88 316 768	4 459 259	94 092 609
Poultry	160 132 136	81 898 458	78 233 678	5 009 234	92 151 589
Services related to agriculture and animal husbandry, excluding veterinary services	74 240 169	41 117 396	33 122 773	4 491 057	9 538 609
Forestry related services	55 850 890	5 977 003	49 873 887	1 009 232	16 642 487
Fishing	27 517 422	3 735 195	23 782 227	1 681 062	6 147 667
Mineral coal and lignite	22 938 856	2 589 322	20 349 535	2 005 421	0
Oil extraction	0	0	0	0	0
Iron and other metal ore mining	7 527 379	1 854 355	5 673 025	334 720	646 260
Sand, clay and quarrying	19 853 176	3 938 531	15 914 645	2 145 395	7 217 581
* N.c.e mining and quarrying	9 236 107	1 122 642	8 113 465	283 832	1 296 847
Manufacture of foodstuffs and drinks	1 288 761 580	842 585 002	446 176 578	65 352 533	302 654 276
Tobacco processing	755 187 216	267 017 578	488 169 638	120 939 801	781 065 909
Textiles manufacturing	176 565 884	24 770 190	151 795 694	13 893 976	91 600 191
Apparels and fur processing and dying	221 003 124	80 051 603	140 951 521	22 104 354	173 689 351
Leather tanning and processing, leather articles and shoes manufacturing	31 670 339	6 323 764	25 346 576	2 861 560	16 534 746
Manufacture of wooden and cork products (excl. furniture)	63 254 333	42 255 047	20 999 287	4 461 092	11 507 708
Paper and paper products	103 926 997	56 184 417	47 742 580	16 589 429	10 840 715
Press & publication	122 982 973	58 795 690	64 187 282	10 297 865	4 589 305
Manufacture of oil products	0	0	0	0	0
Manufacture of chemicals and chemical products	242 306 823	141 411 638	100 895 185	94 139 146	60 196 525
Manufacture of rubber and plastic products	137 958 217	78 817 207	59 141 010	20 105 901	30 124 619
Manufacture of non metallic mineral products	407 570 073	153 117 837	254 452 237	21 698 593	224 493 487
Main metals industry	286 933 434	180 146 277	106 787 158	94 112 584	113 928 838
Manufacture of other metal articles and relevant service activities	199 952 979	108 588 438	91 364 541	33 168 124	146 547 241
* N.c.e machinery and equipment	171 200 096	32 734 304	138 465 791	20 844 071	24 827 867
Manufacture of office, accounting and computer machinery	22 980 899	9 491 414	13 489 485	9 633 373	23 865 406
* N.c.e manufacture of electric machinery and equipment	59 291 822	31 270 480	28 021 342	16 399 332	13 573 946
Manufacture of radio, TV, telephone and communication equipment	13 391 102	2 374 722	11 016 380	4 381 192	6 773 578
Manufacture of medical devices, measurement and control, optics and watches / clocks	47 185 352	21 771 128	25 414 225	8 724 382	30 968 413
Manufacture of motor vehicles and engines and trailers for them	89 892 484	52 827 884	37 064 600	26 162 049	29 630 235
Manufacture of other transport vehicles	9 371 600	2 086 412	7 285 188	3 683 040	4 875 064
Manufacture of furniture and b.y.s	49 724 337	11 618 079	38 106 258	11 292 456	17 111 466
Generation, transmission and distribution of electricity	280 045 764	46 455 395	233 590 368	45 455 779	60 235 230
Generation and distribution of gas	11 192 716	2 030 008	9 162 708	10 896 870	0
Collection, treatment and distribution of water	38 514 692	3 673 951	34 840 741	4 630 239	0
Construction	722 828 919	341 573 512	381 255 407	64 505 982	0
Sales, maintenance and repair of motor vehicles; fuel retailing	329 890 250	80 191 161	249 699 089	16 503 939	8 239 441
Wholesaling and merchandising (excluding motor vehicles)	525 285 742	172 625 565	352 660 177	79 300 425	62 790 623
Retailing & repair of private effects and furnitures	838 857 310	161 661 949	677 195 361	57 469 730	212 705 619
Hotels, motels, lodging houses and other accommodation facilities	255 110 901	146 972 474	108 138 428	9 676 177	61 132 595
Transport by rail	45 895 532	18 387 096	27 508 436	15 247 521	10 941 588
Transport by road and transport by pipeline	1 250 324 315	276 844 826	973 479 489	330 386 517	470 019 628
Transport by sea	52 921 296	29 560 615	23 360 681	16 367 446	25 143 459
Transport by air	22 171 416	11 713 509	10 457 907	3 086 093	6 665 601
Postal services and telecommunications	184 429 583	28 009 254	156 420 329	5 978 763	34 136 114
Financial intermediary institutions and relevant ancillary activities	496 413 380	91 841 732	404 571 648	31 894 261	12 992 164
Real estate dealership	46 179 984	1 590 252	44 589 732	2 989 969	1 710 896
Computer and other activities	17 502 705	4 273 370	13 229 335	1 789 367	2 106 081
Educational services, R & D, other business activities	127 293 567	31 573 051	95 720 516	18 140 671	5 360 600
Health works and social services	128 450 921	24 583 077	103 867 844	10 986 950	22 812 187
Other business activities	153 914 092	48 973 025	104 941 067	14 744 988	14 694 903
Public services	1 645 861 538	0	1 645 861 538	0	260 540
Dwelling ownership	193 054 295	45 092 928	147 961 367	14 933 931	3 520 705
Total, intermediary consumption	14 892 575 476	4 666 302 570	10 226 272 906	1 653 649 832	4 365 060 883
Special consumption	4 312 371 586	3 956 516 287	355 855 299	495 991 149	0
Public consumption	2 158 914 571	2 101 192 337	57 722 234	81 814 984	0
Private investment	999 579 767	870 020 650	129 559 117	3 194 952 578	0
Public investment	380 975 492	363 293 399	17 682 093	579 684 668	0
Stock changes	267 697 251	252 670 937	15 026 314	39 067 420	0
Exports to Turkey	3 523 022 088	3 523 022 088	0	0	0
Exports to the World	842 038 795	842 038 795	0	0	0
Total final demand (at basic prices)	12 484 599 550	11 908 754 492	575 845 057	4 391 510 799	0
Total used (at basic prices)	27 377 175 026	16 575 057 063	10 802 117 963	6 045 160 630	4 365 060 883

n.c.e: Not classified elsewhere

Note: The sub-sectors, which are not significant for the region in table of 74 x 74 are not covered by the table above. However, these groups are included in the total.

entirely matches the results of the sector analysis. Wooden processing is a sub-sector highlighted by the incentive certificates, which has not been considered prominent by other analyses. This sub-sector, which is never recommended due to destruction of forest in the region, may be supported in the region on condition that feedstock is supplied from other regions in Turkey as well as from abroad.

Table 3.8.2.1 Numbers of incentive Certificates in the Period of 1980 – 2003

	Amasya	Çorum	Samsun	Tokat	Region
Energy	-	-	6	-	6
Services	50	85	241	92	468
Manufacturing	152	419	281	314	1 166
Mining	31	32	4	30	97
Agriculture	54	334	23	117	528
Total	287	870	555	553	2 265

Source: DPT (2003-3).

Table 3.8.2.2 Numbers of Incentive Certificates for Manufacturing Industry in the Period of 1980 – 2003*

	Amasya	Çorum	Samsun	Tokat	Region
Food and beverage	68	114	68	89	339
Weaving, clothing, shoes	21	39	48	68	176
Wooden and wooden products industry	13	16	26	48	103
Paper and paper products and printing industry		16			16
Chemical industry	11	17	27	16	71
Quarrying and soil based industry	22	114	42	69	247
Main metals industry	1	17	26		44
Metal articles industry	9	13	9	4	35
Machinery & equipment and transport vehicles industry	8	58	26	12	104
Other manufacturing industry	3	13	8	4	28
Total	156	417	280	310	1 163

** There is a difference of 3 incentives between the sums provided by Table 3.8.2.1 and Table 3.8.2.2. The difference is due to employment of different sources. There is also a difference between the provincial sums for the same reason.*

Source: Hazine ve Dış Ticaret Müsteşarlığı (2004).

3.8.3 Pioneering Sectors

First of all, a definition of pioneering sectors must be made so that the pioneering sectors can be identified. For a given economy, a pioneering sector is a sector which has potential for development in terms of feedstock resources, factor assets, human capital, technological levels and market opportunities and has higher added values and/or potential for development of higher volume of activities by means of proactive and retrospective connections. The key concept in this connection is whether there are "development opportunities" in the context of the criteria referred to. The added value of a sector may be high but the region may lack human capital needed by that sector or although the retroactive and prospective connection indexes of a sector are very high, it may be impossible for such activities to develop in a given region. In addition, a given sector, which may be a pioneering sector for a national economy may prove inappropriate for the region due to the position of the region and/or other criteria.

The time dimension treated in determination of the pioneering sectors is also important. A sector, which cannot be present in a region due to one or several of the limitations in the short or medium term, can have a position and gain an identity of a pioneering sector there following discontinuation of such limitations. It is difficult and even impossible to determine the pioneering sectors over a long run.

Unforeseeable technological advances may lead to changes as to which sector would be a pioneering one in a region. Developments in transport and communications may allow the positioning of activities, which could not be positioned in a region earlier or a region may offer a very suitable position for a newly developed product.

The path-dependent nature of development of an industry in a region is a final consideration related to determination of the leading sector. In case an

enterprise in an industry is positioned in a location because it provides actual positioning advantages or due to a coincidental reason in rare cases, this is a signal for the positioning of other companies having the same field of operations in that location. This is because if a company is successful in that location, this is a sign that the said location is a profitable position for the respective field of operations. The initial enterprise getting a position there reduces risks and uncertainty level for other enterprises intending to have a position in that location, initiating a cluster to be followed by the rise of a pioneering sector.

Four different analyses have been made in order to be able to determine pioneering sectors in the region. Each of them points to the present pioneering sectors and/or sectors which have potential to be pioneering sectors in the future. The findings obtained through different analysis methods have been integrated as part of the relationship of cause and effect at the stage of determining scenarios and they have been used in diagnosis of the pioneering sectors as provided by Table 3.8.3.1.

The pioneering sectors which have been diagnosed as a result of the analysis of the sectors are the sectors which have already substantial activities in the region, generating added values, apart from potential for further development in the future.

The sectors as revealed by the analysis of the incentives are the ones where entrepreneurs see opportunities for profit and enterprises in this field believe there is a chance for their survival. If this was not the case, entrepreneurs would not have received incentives and exposed themselves to risks. The fact that the enterprises in some sectors for which incentives are received manage

Table 3.8.3.1 Leading Sectors Based on the Analyses

Sector	Sector analyses	Incentive analyses	SWOT analyses	Input – output analyses	Structural analysis
1) Fruits and vegetables for fresh consumption	√		√		
2) Fruits and vegetables for processing industries	√		√	√	
3) Milk production and processing	√				
4) Food industry	√	√			
5) Quarrying – earth based industries	√	√	√		
6) Clothing industry	√	√		√	
7) Weaving industry	√	√		√	
8) Production of sanitary products	√				
9) International transport	√	√			
10) Education	√	√			
11) Health	√	√			
12) Trade	√				
13) Tourism / spa tourism	√	√			
14) Machinery manufacturing industry		√		√	
15) Electric domestic appliances					√
16) Manufacture of plastic products					√
17) Wooden products				√	
18) Manufacture of motor vehicles and trailers				√	
19) Manufacture of non metallic mineral products				√	
20) Metal articles				√	√
21) Main metal industry					
22) Furniture industry				√	

to survive although they operate at low capacity is a sign that the regional opportunities are suitable for such enterprises and that once certain bottlenecks are eliminated, they will have further potential to generate higher volumes of operation in the region.

SWOT analyses point to opportunities as perceived by local people. All of the highlighted activities are present in the region today. Confirmation of them by SWOT analyses means that large development potential is seen in them. However, as noted by another part, based on the analysis of certain sectors, for instance tourism, from a more objective and wider perspective, it will be seen that their development potential is not very high.

The pioneering sectors as well as the indexes of proactive or retrospective connections diagnosed by means of the analyses of inputs and outputs are the sectors having large potential to stir activities. As far as they are concerned, activities are under way in manufacture of trailers only in the sector of the manufacture of motor vehicles and trailers in the region. This sub-sector may develop but the motor vehicles industry does not have potential for development in the short and medium term as a minimum.

The structural analysis has been made on the basis of the regional economic structure and the limitations referred to at the start of the previous part, in an attempt to identify the sectors having development potential in the region although no major volume of activities take place there. These sectors are well placed to emerge as significant fields of operation in the future in the context of the region's factor assets and market opportunities.

The more the sectors identified as a result of different analysis methods overlap each other, the higher their potential to become pioneering sectors is. In the region, the following have emerged as the pioneering sectors based on multiple analyses in respect of both fresh consumption and inputs for processing industries: production of fruits and vegetables, food industry, quarrying and earth based industries, clothing industry, weaving industry, international transport, education, health, tourism and trading services, machinery manufacturing industry and metal articles manufacture. Elimination of problems and bottlenecks encountered by these sectors, a large portion of which already exists in the region, would give an impetus to the regional economy in the short and medium-term. In the long-term, the sectors which rise as the pioneering sectors in the table, may have prominence and also, other pioneering sectors may also emerge in the region over time depending on local and overseas developments and technological advancements.

3.9 ADDITIONAL CONSIDERATIONS THAT MAY IMPACT DEVELOPMENTS

The part, "Basic Framework of the Scenarios: An Overview of the Regional Opportunities in Light of the Current Situation and Potential Developments," discusses the most important basic considerations determining the scenarios. The economic order, which outlines the basic framework of the region, is a major consideration not addressed by this part. It is assumed that the scenarios could materialize in "free market" conditions. Instruments of the public sector to intervene with the economy are limited and of limited impact in a free market order. Such intervention instruments are basically: improvement of physical infrastructure and enhancement of health and education infrastructure, namely investment in human capital and tax allowances as well as a number of subsidies extended by numerous methods.

Improvement of physical infrastructure is expected to eliminate certain bottlenecks and stir additional economic activities. Such developments which are expected to be stimulated may never materialize; this is because stimulation of some activities is dependent on intra regional developments as well as on the extra regional and even global developments.

Investment in human capital may trigger better exploitation of regional opportunities, better perception and use of present opportunities and increased overall efficiency and at the same time, it may also lead to the flow of human capital outside the region as a result of a more conscious exploitation of the extra regional opportunities.

Incentives may not be exploited by the regional entrepreneurs properly; they may be misused or found inadequate. Incentives may lead to establishment of those low efficiency and/or disadvantageous enterprises in respect of their positions, which could not survive once such incentives come to an end. In addition, in case local authorities also have means for extension of incentives to attract investment, this may lead to an inter-regional competition for incentives and waste of public resources. The competition over extension of incentives may trigger locational tournaments especially in the case of foot-loose industries. Enterprises, which are positioned in the region by relying on the available incentives, may well leave the region in the future seeing that better incentives are offered by another region.

On the other hand, industries attracted to the region thanks to both improvement of physical infrastructure and human capital and incentives offered may well initiate a cumulative development drive following the achievement of the necessary thresholds for emergence of external economies in the free market order. If an enterprise is set up in region and it is successful, this is a sign for entrepreneurs. This is a development pointing to the fact that other enterprises may also succeed by using the same or better feedstock, supplies and marketing channels. Guidance offered by a successful entrepreneur over the method of success through its own model and mitigation of risks by such an entrepreneur constitute one of the fundamental reasons for presence of many enterprises operating in the same industry in a location, which is regarded as an extreme agglomeration by some observers.

In conclusion, the public sector has a limited number of efficiently low instruments of intervention and incentives that may be applied to regional development in the free market order. This basic consideration points to the requirement that any capital, strategy and plans to be developed must basically focus on the factors that may determine the position of activities in the context of national and global potential developments and avoid administrations with extensive intervention, which are based on the high effectiveness of interventions and that in short, they must be realistic.

3.10 ANALYSIS OF INPUTS AND OUTPUTS AND PROJECTION OF BASIC PARAMETERS AND GROWTHS IN THE SCENARIOS

The quantitative projections in the scenarios have been estimated by using a table of inputs and outputs. Turkey Table of Inputs and Outputs for 1998 serves as a basis for the table. At the first stage, a table with 107 sectors has been obtained by considering the agriculture dominated structure of the region and elaborating the agricultural sector on the basis of the nationwide table having 97 sectors and adding 10 more sectors. At the second stage, this table has been consolidated on the basis of 65 sectors such that it would incorporate the sectors which would be equal to the regional sectors quantitatively. Later, the table has been scaled down to 63 sectors because the region does not have the sectors for oil and gas extraction and oil refinement and coke manufacture. Permutation matrixes have been employed in consolidation.

Production and revenue figures on 63 sectors were needed at the third stage of the preparation of the table of inputs and outputs. These figures are available for Turkey Table for 1998 only. The latest revenue data published by the DİE are on a nation wide basis for 2003, containing 14 sectors. The table of inputs and outputs has been consolidated on the basis of 14 sectors so that revenue figures could be generated for the region by taking as a basis the nationwide data and the ratios of added values to production have been identified. As part of this, it has first been assumed that the growth rates for sectors, which were observed in the Turkish economy between 2001 – 2003, have also materialized at the same rates for the region. Later, because there were no sources of data other than the table of inputs and outputs with rates of production and revenue on a sector basis, it has been assumed that the rates of added values calculated from Turkey 1998 table of inputs and outputs, which has been consolidated in 14 sectors, remained the same in 2003.

At the final stage, the rates of production – added values have been checked and revised by using the revenue and production values for 2003, which have been compiled for many sectors on both a regional and nationwide basis and consulting relevant sector specialists.

Both the major input – output table with 65 sectors and the table with 14 sectors have been equalized by a comparison of Turkey 1998 tables having the same sizes. The bottom up method was largely used at the stage of equalization and figures and rates which have been found major or minor without a meaning in evaluations conducted jointly with the sector specialists on the 63 sector regional table have been lowered to acceptable levels in line with specialist comments.

3.10.1 Outputs Derived from the Table of Inputs and Outputs

As the indexes of proactive and retrospective connections have been derived from the major 63 sector table (from the reverse of the table), output (production value) added value and employment figures have been obtained for each scenario developed by making use of the minor 14 sector table. As part of production of a scenario, a growth target has first been identified, a final demand vector estimate has been made on the basis of this target and a production (output) vector has been calculated by using the reverse matrix of this vector and input – output table. Employment figures for the sectors have been obtained by using the production vector as an added value vector has been reached on the basis of the rates of production added values.

The employment figures calculated by using the table of inputs and outputs have been employed for the sectors of industry and services only as a different method has been followed in estimation of the employment by the agricultural sector.

The rule of unhidden employment in the agricultural sector is an obvious fact. The present labor demand of the regional agricultural sector is 258 thousand persons on the basis of employment of 260 days a year. Because agricultural labor requirements are not evenly distributed throughout a year having a seasonal nature, it is probable that demand exceeds the calculated requirements at a rate of 15 to 20 percent in the months when demand for labor is most intensive. On the other hand, the changes proposed to be made in the pattern of agricultural products, particularly increased activities of plantation of fruits and vegetables, will increase labor requirements beyond the present levels. However, it is a low probability that the labor demand in the rural areas would go up to the present labor supply level even though intensive agriculture had prominence. In order to increase per capita income in the rural areas, it is necessary to achieve labor and population transfers from these areas to the urban areas and from agriculture to industry and services.

According to the data in the census, employment by the agricultural sector declines in Amasya and Çorum since 1985 and 1990, respectively. Tokat is the only province maintaining its agricultural employment level and the employment volumes for 1990 and 2000 are almost same in this province. In the region, employment by the agricultural sector declined by 119,4 persons, namely 12,5 percent, between 1990 – 2000. It is almost definite for this trend to continue in the future in the context of the developments in the regional sectors of agriculture, industry and services.

This trend has been used as data in calculation of the regional agricultural employment but because it is envisaged under different scenarios that developments at varying rates in the sectors and the difference in per capita income in the rural and urban areas are to be bridged at varying rates, the rural employment decline rates have been adopted differently by each of the scenarios.

Scenario A_0, namely the basic scenario, assumes that the decline in the agricultural employment will continue at the same rate between 1990 – 2000. This rate has been increased by 20 percent, 40 percent and 60 percent in Scenario A_1, Scenario A_2 and Scenario A_3. Taking this as a starting point, agricultural employment forecasts have been made for each scenario for different years by reducing the regional agricultural employment in the publication, Census 2000, Social and Economic Characteristics of Population, by the envisaged rates.

Knowledge is needed on the ratios of population to employment so that population data and the distribution of population between the urban and rural areas can be calculated on the basis of the employment in the sectors of industry and services, which is derived from these employment forecasts and analyses of inputs and outputs. The census data have again been utilized in forecasting these ratios. As part of this, it has been assumed that the entire population employed by the agricultural sector resides in the villages and sub-districts (bucaks), namely rural areas and that the entire population employed by the sectors of industry and services resides in the urban areas. Although it is known that a portion of the urban population is employed by the agricultural sector as a portion of the rural population has employment in the sectors of industry and services, it is assumed that they would offset each other and that the errors arising out of this calculation method would be marginal.

The ratio of the population to employment was 1,87, 1,84, 1,67 and 1,74 in the regional agricultural (rural) sector in 1980, 1985, 1990 and 2000, respectively. In the urban areas, the ratios of the population to employment by industry and services were 2.54, 3.32, 3.48 and 3.74 in the same years, respectively. The ratio of population to employment has a downward trend in the agricultural sector and an upward trend in the sectors of industry and services. The same trends also apply on a nationwide basis. However, the nationwide rate is

higher in the agricultural sector as compared to the region as it is lower in services sector. The regional agricultural ratio in 2000 is 25 percent higher than the nationwide ratio as the ratio in the sectors of industry and services is 20 percent higher than the nationwide ratio. These differences between the nationwide and regional values may stem from the differences in the trends of participation in labor and they may also be due to the differences in the population profile to some extent. The regional ratios of population to employment in 2000 have been used in the population forecasts.

The relationship of investment (I) to revenue (Y) is the last relationship which must be forecast. For this purpose, an analysis of regression has been made by employing the data for the period of 1968 – 2001 and this conclusion has been reached: $I=e^{-3,222}\ Y^{1,133}$ (t=24 325, R^2=0.95 and n=33). Logarithmically, this refers to: lnI=-3,222+ 1,133lnY. The coefficient of 1.133 refers to revenue flexibility of investment and in case of an increase of 1 percent in revenue, investment will go up by 1,133 percent as referred to by it. The investments under the scenarios have been derived by employing this relationship.

4 SCENARIOS

Four different scenarios with contents and details provided below have been developed for the region. There is a need to be cautious in analysis and interpretation of these scenarios for several reasons.

Above all, the quantitative characteristics of the scenarios other than the growth targets are based on the analysis of inputs and outputs directly or indirectly. Because the co-efficient values in the table of inputs and outputs remain fixed throughout the projection period, they would be unable to reflect the changes that might occur in the production technologies in the future as they would move away from the baseline year. Since it is largely impossible to predict future technological changes at present, results of the analyses must be interpreted as more realistic conclusions in the case of short and medium-terms and as figures reflecting trends only in the case of a long term.

Possibility of producing an unlimited number of scenarios is the second consideration that must be remembered as regards the scenarios. What really counts is to produce reasonable scenarios having probability in the context of the region and present and potential developments in the country and world. A third consideration that must be considered is that both the table of inputs and outputs and parameters such as ratios of production values to added values and population to employment are based on statistical data. When a scenario is questioned, what is really questioned just relates to these data and figures in fact. It has been endeavored to pay the maximum care to compatibility in the context of unreasonable data and assumptions on the basis of present data sources and present information as part of the development of the scenarios.

Four different scenarios have been developed in the context of the part, “Basic Framework of the Scenarios: An Overview of the Regional Opportunities in Light of the Current Situation and Potential Developments” and the considerations taken up above. The basic objective of the scenarios is to increase per capita income in the region, minimize the income difference between the rural and urban areas and raise the regional per capita income to the level of the nationwide average.

If the four scenarios developed are numbered A_0, A_1, A_2 and A_3, each scenario involves a higher GDP growth rate, higher industrial and service activities, less agricultural employment, higher per capita income and lower differences in terms of per capita income for rural and urban areas and region and the country compared to its precedent. The data used by all the scenarios for the nationwide status are the targets envisaged by the Long-Term Strategy (2001 – 2023) on which the Eighth Five Year Development Plan (2001 – 2005). It is envisaged that during this period, the national GDP is to grow by 6 percent per year and per capita income is to go up by 4,8 percent. The brief descriptions of the scenarios in view of their basic features are provided below as Table 4.4.1.1 provides the developments in the major indicators on the basis of the scenarios. The prices employed by the scenarios are 2003 fixed prices. The differences observed in Table 4.4.1.1 as regards per capita income regarding the ratios of the region to the country and rural areas to urban areas in respect of the scenarios for 2003 are due to the fact that 2000 is the baseline for the regional agricultural employment and that on the basis of this baseline, agricultural employment is reduced at varying rates under different scenarios from 2001.

4.1 SCENARIO A_0

This is the basic scenario based on the assumptions that the present trends will continue with minimum external intervention and that the relative increase in the growth rate will be achieved through improved efficiency. The regional agricultural population will decline, out-migration from the region will continue intensively and annual population increase will remain at 0,38 percent. The regional per capita income and GDP increase rates will remain much below those envisaged nationwide. The difference regarding per capita income in the rural and urban areas will be less and less as the difference between the region and the country will get higher.

4.2 SCENARIO A_1

This is a version of the basic scenario, which has been considerably improved in terms of the basic indicators. GDP and per capital income will increase by 5,48 percent and 4,45 percent annually. Although the difference in the per capita income in the rural and urban areas continues, the difference between the region and the country will increase as compared to the baseline year (2003). Employment by industry and services will get higher. Population transfer from agriculture in the rural areas to industry and services in the urban areas will continue at a higher rate; although the population increase rate and urban absorbing capacity increase as compared to the basic scenario, the region will continue giving out-migration considerably. The rate of increase for per capital income in the rural areas will be much higher than the urban areas due to migration at a right rate.

4.3 SCENARIO A_2

The rate of GDP growth envisaged by this scenario is above the rate envisaged for Turkey. Migration from the rural areas will continue at a high rate, urban population increase rate will get higher, migration from the region will continue at a slower rate. The regional economic structure will considerably change in favor of industry and services; as a result of this, the major cities in the region, particularly Samsun, will be more prominent. per capital income will get closer to the nationwide average as the ratio of rural income to urban income will rise to about 50 percent.

4.4 SCENARIO A_3

This is the most ambitious scenario. It envisages that in the period of 2004 – 2023, GDP grows by 7,26 percent per annum, population increases by 1,85 percent and per capital income grows by 5,41 percent. Migration from the region becomes almost zero as the ratio of the regional per capital income to the nationwide average is higher than 80 percent; the income difference between the rural and urban areas gets narrower as urban population is 4 times the rural population; 80 percent of the population lives in the urban areas at the end of the period (Table 4.4.1.2). Under this scenario, the major cities in the region gain more prominence parallel to the increased employment by industry and services and Samsun is envisaged to be a center of education, health, import and export serving not only the regional provinces but also the provinces in the east and west as well as the northeast part of Central Anatolia.

Table 4.4.1.3 provides the investment plan on the basis of the main and sub-sectors under the alternative scenarios at 2003 fixed prices; Table 4.4.1.4 provides the composition of GDP on a sector basis; Table 4.4.1.5 provides the breakdown of employment by sector; Table 4.4.1.6 provides the breakdown of employment according to rural and urban areas; Table 4.4.1.7 provides efficiency increases on the basis of sectors; Table 4.4.1.8 provides urbanization rates in terms of periods.

Additional information on the scenarios is provided at the end of the part. Annex 1 Table 1 provides GDP periodical grow rates based on individual scenarios; Annex 1 Table 2 provides the regional per capital income in comparison with the nationwide average; Annex 1 Table 3 provides the income rates for the rural and urban areas; Annex 1 Table 4 provides urban population growth rates.

Figure 4.4.1.1 Spatial Development According to Scenario A_1

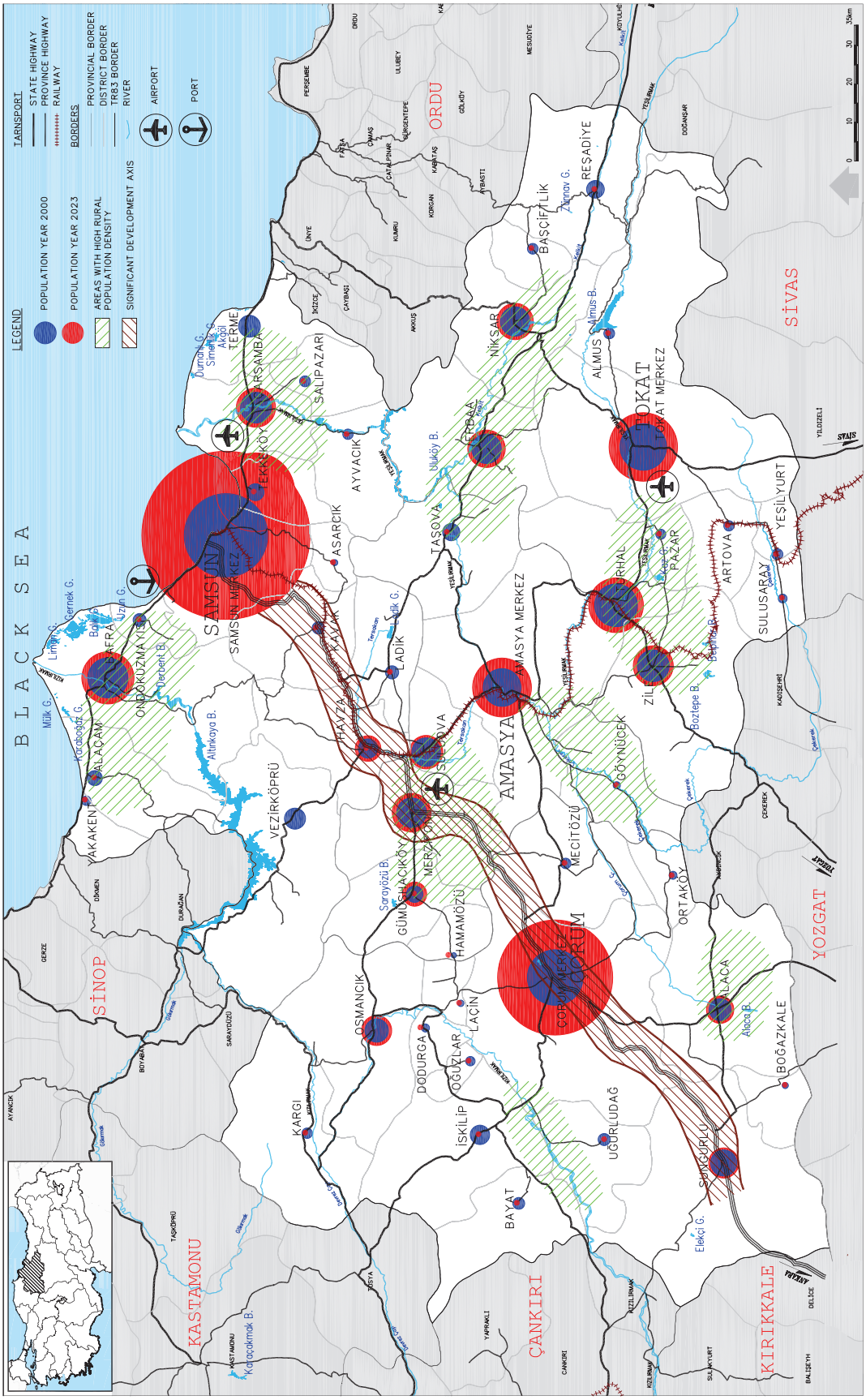


Figure 4.4.1.2 Spatial Development According to Scenario A_2

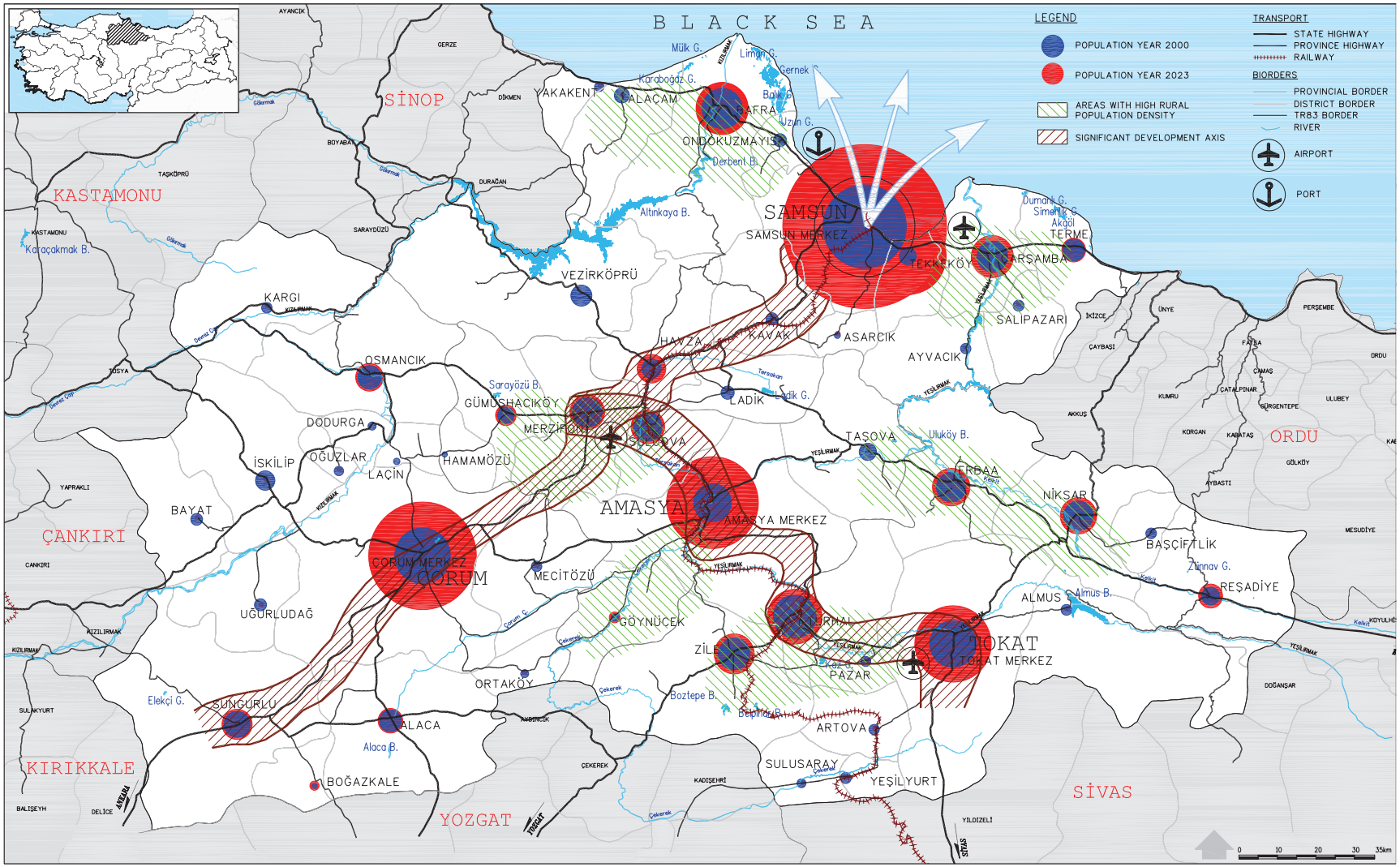


Table 4.4.1.1 Developments in the Major Indicators in Respect of the Scenarios

(percent)

	Average Annual Growth Rate (2004-2023)							Income Per Capita			
	Population				Income Per Capita			Region/Turkey		Rural/Urban	
Scenarios	Rural	Urban	Total	GDP	Rural	Urban	Region	2003*	2023	2003	2023
A_0	-1,34	1,52	0,38	4,24	4,78	2,91	3,86	71,68	60,77	29,54	42,97
A_1	-1,61	2,54	1,04	5,48	5,84	3,22	4,45	71,18	67,90	30,38	51,29
A_2	-1,88	2,83	1,20	6,52	6,41	4,10	7,26	70,90	80,41	31,06	49,36
A_3	-2,14	3,70	1,85	7,26	6,70	4,07	5,41	70,54	81,54	31,81	53,77

Table 4.4.1.2 Basic Features of the Alternative Scenarios, 2003

	Scenario A_0		Scenario A_1		Scenario A_2		Scenario A_3	
	Value	Percent	Value	Percent	Value	Percent	Value	Percent
Income*								
Agriculture	4 461	17,6	5 228	16	5 549	13,8	5 570	12
Industry	5 575	21,9	7 487	23	9 614	24	11 634	25
Services	15 375	60,5	19 874	61	24 906	62,2	29 241	63
Total	25 411	100	32 589	100	40 069	100	46 445	100
Employment (thousand)								
Agriculture	614	51,6	577	44,5	542	41,2	510	35,2
Industry	161	13,5	231	17,8	238	18,1	318	22
Services	416	34,9	490	37,7	537	40,8	619	42,8
Total	1 190,4	100	1 298	100	1 318	100,1	1 447	100
Population (thousand)								
Rural Populationu Urban	1 068	33,1	1 004	27,1	944	24,6	888	20,2
Populationu	2 156	66,9	2 696	72,9	2 898	75,4	3 504	79,8
Total Population	3 224	100	3 701	100	3 842	100	4 392	100
Per Capita income*	7 882,4		8 806,2		10 429		10 575,6	

* *Million YTL at 2003 fixed prices*

Table 4.4.1.3 Investment Plan in Respect of the Alternatives

Public sector investment plan

(million YTL at 2003 prices)

	Scenario A_1			Scenario A_2			Scenario A_3		
	2004-2010	2011-2015	2016-2023	2004-2010	2011-2015	2016-2023	2004-2010	2011-2015	2016-2023
Agriculture	103	108	260	107	121	313	110	133	369
Farming and animal husbandry	99	103	250	103	116	303	106	128	359
Forestry	4	5	10	4	5	10	4	5	10
Fishing	0	0	0	0	0	0	0	0	0
Industry	366	371	904	380	425	1 124	391	468	1 317
Mining and quarrying	15	15	34	16	15	34	16	15	34
Manufacturing industry	51	53	128	53	59	156	54	65	184
Electricity, gas and water	300	304	742	311	351	934	321	387	1 098
Services	1 070	1 119	2 851	1 109	1 249	3 406	1 142	1 383	4 019
Construction	10	12	32	11	12	32	11	12	39
Wholesaling and retailing	8	9	12	8	9	24	8	10	28
Hotel and restaurant services	6	6	13	6	7	16	7	8	23
Transport and communication	175	182	458	181	212	571	186	235	676
Financial institutions	45	46	116	46	52	140	47	57	165
Self employment and services	0	0	0	0	0	0	0	0	0
Governmental services	811	847	2 173	841	941	2 586	866	1 045	3 052
Dwelling ownership	15	16	36	16	16	36	16	16	36
Total	1 539	1 599	4 015	1 597	1 795	4 844	1 643	1 984	5 704

Private sector investment plan

(million YTL at 2003 prices)

	Scenario A_1			Scenario A_2			Scenario A_3		
	2004-2010	2011-2015	2016-2023	2004-2010	2011-2015	2016-2023	2004-2010	2011-2015	2016-2023
Agriculture	409	397	996	423	444	1 202	434	489	1 416
Farming and animal husbandry	391	379	954	404	425	1 151	415	468	1 356
Forestry	8	8	20	9	9	24	9	10	29
Fishing	10	9	21	10	10	26	10	11	31
Industry	3 884	3 760	9 500	4 014	4 215	11 472	4 119	4 649	13 513
Mining and quarrying	239	229	578	246	256	697	253	283	821
Manufacturing industry	3 542	3 407	8 597	3 661	3 822	10 394	3 757	4 219	12 254
Electricity, gas and water	103	124	324	107	136	380	109	147	438
Services	7 334	7 007	17 578	7 581	7 849	21 241	7 780	8 659	25 046
Construction	399	403	1 009	411	442	1 194	422	482	1 390
Wholesaling and retailing	400	384	966	413	430	1 165	423	474	1 372
Hotel and restaurant services	1 005	971	2 443	1 037	1 086	2 944	1 063	1 196	3 464
Transport and communication	3 585	3 407	8 548	3 708	3 825	10 352	3 809	4 226	12 224
Financial institutions	481	467	1 172	497	522	1 413	509	575	1 663
Self employment and services	330	311	779	341	349	944	350	386	1 115
Governmental services	0	0	0	0	0	0	0	0	0
Dwelling ownership	1 133	1 063	2 661	1 172	1 195	3 228	1 204	1 322	3 817
Total	11 626	11 164	28 074	12 017	12 508	33 915	12 333	13 797	39 976

Total sector investment plan

(million YTL at 2003 prices)

	Scenario A_1			Scenario A_2			Scenario A_3		
	2004-2010	2011-2015	2016-2023	2004-2010	2011-2015	2016-2023	2004-2010	2011-2015	2016-2023
Agriculture	512	505	1 255	530	565	1 515	544	623	1 785
Farming and animal husbandry	490	483	1 204	507	541	1 455	521	596	1 715
Forestry	12	13	30	13	14	34	13	15	39
Fishing	10	9	21	10	10	26	10	11	31
Industry	4 249	4 132	10 404	4 394	4 640	12 596	4 510	5 117	14 830
Mining and quarrying	254	244	612	262	271	731	269	298	855
Manufacturing industry	3 593	3 460	8 726	3 713	3 882	10 550	3 811	4 285	12 438
Electricity, gas and water	403	428	1 066	418	487	1 315	430	534	1 537
Services	8 404	8 127	20 429	8 690	9 098	24 648	8 927	10 042	29 065
Construction	409	415	1 041	422	454	1 227	432	494	1 429
Wholesaling and retailing	408	393	989	421	439	1 190	431	483	1 400
Hotel and restaurant services	1 011	978	2 456	1 044	1 093	2 961	1 070	1 204	3 487
Transport and communication	3 759	3 590	9 006	3 890	4 037	10 923	3 995	4 461	12 901
Financial institutions	526	513	1 288	543	574	1 553	557	632	1 828
Self employment and services	330	311	779	341	349	944	350	386	1 115
Governmental services	811	847	2 173	841	941	2 586	866	1 045	3 052
Dwelling ownership	1 149	1 079	2 697	1 188	1 211	3 264	1 220	1 338	3 853
Total	13 169	12 763	32 088	13 613	14 303	38 759	13 976	15 871	45 680

Table 4.4.1.4 GDP Composition

(percent)

Sector	Scenarios	2003	2010	2015	2023
Agriculture	A_0	20,59	18,50	17,90	17,60
	A_1	20,59	18,52	17,24	16,04
	A_2	20,59	18,45	16,89	13,85
	A_3	20,59	18,46	16,89	11,99
Industry	A_0	19,71	21,20	21,00	21,90
	A_1	19,71	21,18	21,68	22,98
	A_2	19,71	21,31	22,02	23,99
	A_3	19,71	21,20	22,03	25,05
Services	A_0	59,70	60,30	61,10	60,50
	A_1	59,70	60,30	61,08	60,98
	A_2	59,70	60,24	61,09	62,16
	A_3	59,70	60,34	61,08	62,96
TOTAL	A_0	100,00	100,00	100,00	100,00
	A_1	100,00	100,00	100,00	100,00
	A_2	100,00	100,00	100,00	100,00
	A_3	100,00	100,00	100,00	100,00

Table 4.4.1.5 Total Employment Plan

		Employment (thousand)				Sectoral Distribution (percent)			
Sector	Scenarios	2003	2010	2015	2023	2003	2010	2015	2023
Agriculture	A_0	802,4	730,6	683,2	613,8	65,3	61,6	58,5	51,6
	A_1	796,0	711,2	656,3	577,1	64,7	59,1	52,7	44,5
	A_2	789,6	692,5	630,2	542,3	64,2	57,2	49,3	41,2
	A_3	783,3	674,2	605,6	510,2	63,6	55,3	45,8	35,2
Industry	A_0	84,9	101,8	121,4	160,6	6,9	8,6	10,4	13,5
	A_1	91,9	132,8	176,0	231,0	7,5	11,0	14,1	17,8
	A_2	94,1	143,8	188,0	238,0	7,7	11,9	14,7	18,1
	A_3	95,9	152,8	217,0	318,0	7,8	12,5	16,4	22,0
Services	A_0	340,7	354,3	363,6	416,0	27,7	29,9	31,1	34,9
	A_1	342,3	360,2	414,2	490,2	27,8	29,9	33,2	37,8
	A_2	346,2	374,2	460,2	537,2	28,1	30,9	36,0	40,8
	A_3	351,5	393,2	500,2	619,2	28,6	32,2	37,8	42,8
TOTAL	A_0	1228,0	1186,7	1168,2	1190,4	100,0	100,0	100,0	100,0
	A_1	1230,2	1204,2	1246,5	1298,3	100,0	100,0	100,0	100,0
	A_2	1229,9	1210,5	1278,4	1317,5	100,0	100,0	100,0	100,0
	A_3	1230,7	1220,2	1322,8	1447,4	100,0	100,0	100,0	100,0

Table 4.4.1.6 Population Based on the Scenarios

		Population (thousand)				Average Annual Growth Rate (percent)			
	Scenarios	2003	2010	2015	2023	2003-2010	2011-2015	2016-2023	2003-2023
Rural Population	A_0	1 396,7	1 271,6	1 189,2	1 068,2	-1,34	-1,34	-1,34	-1,34
	A_1	1 385,5	1 237,9	1 142,3	1 004,4	-1,61	-1,61	-1,61	-1,61
	A_2	1 374,3	1 205,4	1 096,7	943,9	-1,88	-1,88	-1,88	-1,88
	A_3	1 363,4	1 173,4	1 054,0	887,9	-2,14	-2,14	-2,14	-2,14
Urban Population	A_0	1 591,1	1 704,1	1 813,2	2 155,7	0,98	1,24	2,16	1,52
	A_1	1 623,3	1 843,1	2 206,5	2 696,3	1,81	3,60	2,51	2,54
	A_2	1 646,1	1 936,6	2 423,4	2 898,2	2,32	4,48	2,56	2,83
	A_3	1 672,6	2 041,3	2 681,3	3 503,8	2,85	5,46	3,34	3,70
Total Population	A_0	2 987,8	2 975,7	3 002,4	3 223,9	-0,06	0,18	0,89	0,38
	A_1	3 008,8	3 081,0	3 348,8	3 700,7	0,34	1,67	1,25	1,04
	A_2	3 020,4	3 142,0	3 520,1	3 842,1	0,56	2,27	1,09	1,20
	A_3	3 036,0	3 214,7	3 735,3	4 391,7	0,83	3,00	2,02	1,85

Table 4.4.1.7 Labor Efficiency Annual Increase Rates Based on the Scenarios (Added Value/ Number of Employees)

(percent)

Sector	Scenarios	2004-2010	2011-2015	2016-2023	2004-2023
Agriculture	A_0	3,93	4,27	5,84	4,78
	A_1	4,69	5,09	7,32	5,84
	A_2	5,81	6,22	7,06	6,41
	A_3	6,78	7,68	6,01	6,70
Industry	A_0	2,51	-0,01	1,78	1,59
	A_1	0,36	-0,26	3,94	1,64
	A_2	0,55	1,40	5,79	2,86
	A_3	0,66	0,96	4,97	2,46
Services	A_0	3,68	3,36	2,95	3,31
	A_1	4,05	2,37	4,49	3,81
	A_2	4,52	2,24	5,95	4,52
	A_3	4,73	2,77	5,86	4,69
TOTAL	A_0	4,58	3,95	4,51	4,40
	A_1	4,91	4,22	6,11	5,22
	A_2	5,73	5,01	7,29	6,17
	A_3	6,92	5,69	7,02	6,44

Table 4.4.1.8 Breakdown of Population by Rural and Urban Areas

(percent)

Scenarios		2003	2010	2015	2023
A_0	Rural	46,75	42,73	39,61	33,13
	Urban	53,25	57,27	60,39	66,87
A_1	Rural	46,05	40,18	34,11	27,14
	Urban	53,95	59,82	65,89	72,86
A_2	Rural	45,50	38,36	31,16	24,57
	Urban	54,50	61,64	68,84	75,43
A_3	Rural	44,91	36,50	28,22	20,22
	Urban	55,09	63,50	71,78	79,78

4.5 PROPOSED SCENARIO

An analysis must be made of the feasibility of each scenario from various perspectives and of the extent it services its objectives so that one of the scenarios developed may be recommended.

From a financial perspective, all the scenarios are feasible. Although public sector requirements increase from one period to another, they vary between Euro 178 million (Euro 1: YTL 1,75) and Euro 263 million on an annual average according to Scenarios A_0 and A_3 between 2004 – 2023, respectively. The figures under other two scenarios are between these two figures. Although total investments are relatively less and higher at the start and end of the year, they amount to Euro 1 446 million, Euro 1 657 million, Euro 1 905 million and Euro 2 155 million according to Scenarios A_0, A_1, A_2 and A_3 on an annual average, respectively. These investments may be regarded as fundable when they are considered a ratio of regional GDP.

However, the size and growth rate of the regional GDP depend on the rates of increase for labor efficiency in terms of years. Labor efficiency increase rates as added value per employee for Scenario A_3, which are provided by Table 4.4.1.8 do not seem probable especially in the case of the sectors of agriculture and services. Very rapid technological transfers and very effective organization are needed to achieve the labor increase rates envisaged by this scenario. Occurrence of such a rapid change is a very low probability given the capacity of the region to digest human capital and new technologies it could supply in the short and medium term as a minimum. This also applies for A_2.

One of the main objectives of Yeşilırmak Basin Development Project is to raise per capita income up to the nationwide average as another objective is to reduce the income difference between the rural and urban areas. Under Scenarios A_0 and A1, the income difference between the region and Turkey increases rather than declining. This difference is about 10 points under Scenario A_2 as the difference could be bridged by 11 points under Scenario A_3. The income difference between the rural and urban areas is bridged as a result of migration from the rural areas in part under all the scenarios but per capita income in the rural areas can be 53,8 percent of the urban income even under A_3.

Increased employment is yet another objective of the project. Scenarios A_0 and A_1 do not seem successful in terms of this objective. Employment declines under Scenario A0 though marginally as it increases marginally under Scenario A_1. As of 2023, employment increase under Scenario A2 is 7,1 percent as compared to 2003 and it is 17,6 percent under Scenario A_3. Reduced agricultural hidden unemployment is the main reason for no or little increase in total employment under all the scenarios although this is at varying rates according to individual scenarios. The data in the census hide widespread employment in agriculture because everybody who stated on the date of the census that he is employed by agriculture was assumed as effectively employed. The demand for labor in agriculture based on present technology is just 32 percent based on the assumption that those stating in the census that they were employed by agriculture worked in 260 days a year.

As employment by the agricultural sector declines under all scenarios, employment by industry and services increases. There are increases of 89 percent and 22 percent in employment by industry and services compared to 2003 even under Scenario A_0, respectively. The increase rates are 232 percent and 76 percent in industry and services even under Scenario A_3, respectively. Under all the scenarios, agricultural hidden unemployment is transferred to the sectors of industry and services

in increasing numbers from Scenario A_0 to A_3.

Based on evaluation of the employment increases envisaged by various scenarios for the industrial sector in terms of probability, the increase envisaged by Scenario A_3 does not seem much possible in the light of the analyses made in the Part, "Basic Framework of the Scenarios: An Overview of the Regional Opportunities in Light of the Current Situation and Potential Developments." The increases under Scenarios A_1 and A_2 are on the limits of probability. It will be necessary to make much progress on transport infrastructure, local infrastructure services, organization for attraction of capital to the region and on agriculture for supply of feedstock for industry so that these increases can be attained.

The employment increases envisaged for the services sector are at the level of probability under all the scenarios. However, it may be necessary to stretch the regional and local opportunities to the limits in respect to infrastructure under Scenario A_3.

Another objective pursued by the project is to prevent migration by keeping a maximum number of people in the region or minimize migration if this not possible. Scenarios A_0, A_1, A_2 and A_3 are well behind this objective. The regional natural population increase rate is slightly higher than 2 percent annually. This rate may be expected to decline in the next 20 years and go down to the nationwide population increase rate of about 1,85 percent in the period of 1990 – 2000. The envisaged population increase rates are 0,38 percent, 1,04 percent and 1,20 percent under Scenario A_0, A_1 and A_2 annually, respectively. The region will continue giving out-migration to a substantial extent under all the three scenarios. The annual population increase rate envisaged by Scenario A_3 is 1,85 percent. Migration comes to a halt under this scenario and the regional population rises to 4,39 million in 2023. The regional population is 3,22 million, 3,70 million and 3,84 million under Scenarios A_0, A_1 and A_2, respectively in the same year.

The regional population will be 3,34 million in 2003 based on the assumption that the present trends will continue as part of population projections and that there will only be slow improvement, which is provided by the sub part, "Population" of the "Part on the Dynamics Trends of Development" and made independently of the scenarios on the basis of the data on the age brackets and sex. The population will rise to 3,55 million 2023 as part of the projection which envisages a faster decrease in fertility rates and medium level improvements in the present trends; the population will reach 3,61 million on the same date as part of the optimistic projection assuming very positive developments in the parameters determining the population increase.

The population envisaged by Scenario A_0 is con-

Table 4.5.1.1 Comparison of the Scenarios on the Basis of Various Criteria

Criterion	Scenario A_0	A_1	A_2	A_3
Financing	●	●	●	●
Labor efficiency				
Agriculture			○	X
Industry	●	●	●	●
Services			○	X
Per capital income				
Region/ Turkey	-	-	+	+
Rural/ Urban		+	+	+
Employment increases		/	+	+
Industry	●	●	●	X
Services	●	●	●	●
Population	●	●	●	X
Migration from the region	-	-	+	+

● *Probable*
x *Improbable*
○ *Conditionally probable*
- *Negative development*
+ *Positive development*
/ *Marginally positive development*

sistent with the first of the population projections made independently of the population scenarios as the population envisaged by A_1 is in line with the third projection with a minor difference. The population envisaged by A_2 is higher than the 3rd projection by 233 thousand. It may be said that A_2 is consistent with the 3rd projection partially. The population envisaged by Scenario A_3 is higher than the 3rd projection of the most optimistic projections by 782,9 thousand. The population envisaged by Scenario 3 does not seem quite probably although it is not totally impossible.

Table 4.5.1.1 provides a summary of these evaluations. Although Scenario A_3 makes very positive contributions for achievement of some objectives, it is not possible to achieve the efficiency increases envisaged by it in agriculture and services as well as employment increases envisaged by it in industry in the light of present and potential developments. Therefore, it seems that this scenario cannot form a framework or a basis for development of the strategies.

Migration from the region continues at a high rate and the difference in per capita income as regards the region and Turkey further widens under Scenario A_1 and A_0; these scenarios have no social feasibility although their economic feasibility is high.

An option is to be selected between Scenarios A_1 and A_2. Under A_1, the rural – urban income difference decreases but migration from the region continues and the income difference between the region and Turkey is not bridged. Therefore, the social feasibility of Scenario A_1 is low.

Scenario A_2, which incorporates improvement in all the indicators, slows down migration considerably even if it cannot stop it entirely, bridges the region – Turkey income difference substantially and entails a considerable increase in employment, appears to be the best scenario which must be targeted for achievement although much effort has to be exerted in order to be able to achieve the efficiency increases it envisages for agriculture and services.

5 REGIONAL DEVELOPMENT STRATEGIES

5.1 NATIONAL DEVELOPMENT STRATEGY OF TURKEY AT A NATIONAL LEVEL

The Preliminary National Development Plan (PNDP) of Turkey (2004-2006) defines the objectives and priorities of the medium-term strategy depending on the long-term strategy. To this extent, the plan, according to aims and priorities, defines the axes of the development strategy of the PNDP in terms of economic and social coherence with the EU (DPT, 2003-5).

Development axes in the PNDP are adopted as:

1. Increasing the competitive power of the establishments,
2. Improving human resources and increasing employment,
3. Improving infrastructure services and protecting the environment,
4. Increasing economic power of the regions, reducing development differences among the regions and increasing rural development:

In the PNDP, priority areas for the above – mentioned development axes are determined as follows:

- Improving human resources and especially increasing the potential for self-employment,
- Supporting the existing and establishing SMEs and increasing their competitive powers at a collective level by increasing the potential of common cooperation as a means of getting them to organize like a network interaction,
- Realizing new investments and supporting small infrastructure investments-social and physical infrastructure investments carrying importance regarding the increase in the quality of living,
- Providing a variety in economic activity in the rural area,
- Strengthening the governance mechanisms and improving the institutional capacity will improve common establishment areas which will increase local participation, and defining new local governance models and their institutional structures which will regulate local entities' collective involvement with local economic development (DPT, 2003-5: 124).

In the Medium Term Programme covering 2006-2008, 'to improve the life quality of the Turkish people, caring for all segments of the society in an environment where Turkey's economic and social development is accelerated on the road to the EU membership has been determined as the fundamental aim and,

- ensuring a sustainable growth in a stable environment,
- enhancing the competitiveness in economy,
- improving human resources,
- strengthening social inclusion,
- reducing inter-regional differences in terms of development,
- wide-spread adoption of good governance in the public administration,
- improving the physical infrastructure (DPT, 2005-3:4).

In MTP other than "Macroeconomic Politics and Objectives", "Development axes of Programme Period" and "Sectoral Politics" also take place.

Of the "Development Axes", politics regarding Regional Development and Reducing Inter-regional Differences in Terms of Development can be summarized in three topics as follows:

1. For implementing regional development politics and activating local potential:

- Forming principles, standards and frameworks for spatial and regional politics covering the country in general,
- Conversion of the regional development plans into applicable, programmes

and providing resources for these programmes,

- Setting up local institutional structures such as Development Agencies at first,
- According to the quality of labour analysis, increasing employment with applications such as encouraging entrepreneurship and supporting the formation of groups,
- Protecting historical, cultural and natural assets and deriving from them economic benefits.

2. To keep inter-regional migration trends contained, for a balanced distribution of the population in the location and to plan urbanization in sound manner:

- Determining the cities having the feature of a regional center and by analyzing migration trends, developing strategies and politics to lead the migration to these centers,
- Improving physical and social infrastructure in cities which are under intensive pressure from migration,
- Defining the duties of and the authorization related to physical planning between local and central institutions and setting up an effective control mechanism.

3. To increase prosperity in the rural section and reducing differences in terms of development between rural-urban:

- By creating politics at the national level, providing an effective work-share for rural development between local and central institutional structures,
- Giving priority to central rural settlements, improving the infrastructure in these settlements and getting these units to provide service to nearby settlements,
- Developing models which provide cost effectiveness and access in bringing public services to spread settlement units,
- It is necessary to provide sustainable living conditions for the citizens who departed from their living areas because of inevitable reasons such as natural disaster, expropriation, etc., in their initial or new settlements. (DPT, 2005-3:23-26).

It is important for the reality and implementation possibilities of the proposed strategies that the strategic objectives within the regional development strategies at a national level, priorities and precautions are considered while preparing the development strategy of the region TR83.

The "TR82, TR83 and TRA1 NUTS Level 2 Regions Development Programme" which is proposed by the State Planning Organization (DPT) covers 10 cities in total consisting of Amasya, Bayburt, Çankırı, Çorum, Erzincan, Erzurum, Kastamonu, Samsun, Sinop and Tokat. The programme, as approved by the European Commission and the Turkish Government within the scope of the 2003 Financial Cooperation Programme has a its budget of 52 330 000 euro (fifty two million three hundred thirty thousand euro) in total of which 40 million euro is EU support, 12 330 000 Euro (twelve million three hundred thirty thousand euro) is a national budget contribution.

The general aim of the project is to put into practice fund programmes and technical help services which will support implementing the program to support local development initiatives, SMEs, and small range infrastructure.

Priority areas defined in project are:

- Local Development Initiatives
- SMEs
- Small scaled Infrastructure

In order to receive the mentioned aid, appropriate projects coherent to EU format should be prepared, presented to related institutions, approved and implemented. Some of the projects prepared by public and local administrations have been presented to related institutions and work is underway.

5.2 VISION OF TR83 REGION

The vision that symbolizes the future of the region describes the outlines of a future which can be achieved. For TR83 Region, the vision has been determined as follows:

"An environmentally sensitive, competitive, rapidly developing region, which has become Turkey's gateway to the Black Sea and which has raised its quality of life"

5.3 MAIN STRATEGIC OBJECTIVE

The main strategic objective is to transform and develop the spatial, social and economic structure. In other words, the aim is to ensure the sustainable development of social and economic transformative structure, matching the renewed spatial structure of the region. According to the main aim, regional development is defined under two main headings:

- Transformation of economic structure and
- Transformation of social structure.

The sustainability of socio-economic development means not creating a negative impact or pressure on the ecological structure of the region and mitigating the ecological problems that have arisen until now.

Economic and social developments in the region and their effects on the regional ecology occur not only in the area of socio-economic relations but also in the physical space of the region. Location incorporates these developments through cities and urban activities increasing in density across the geography, transformations taking place in the rural areas and rural settlement, and networks of infrastructure being established/improved between settlements, and which has a determining effect on the direction/intensity and character of the change. Location constitutes the grounds on which socio-economic and ecological developments take place.

Regional development is meaningful only if it is sustainable. Therefore, development must be realized by institutionalizing it. If development does not occur by socially developing and restructuring itself, sustainability will be left to chance. However, in order to be able to compete with the outside world and within itself continuously, the region must both operate its existing institutional structures more efficiently and create new institutional mechanisms and structures.

5.4 STRATEGIC OBJECTIVES AND PRIORITIES

The strategy to ensure the realization of Scenario A_2 envisaged for TR83 has determined the strategic objectives in view of the SWOT analyses that were taken into consideration at the scenario stage and in coherence with the higher plan decisions.

The region will achieve a transformation parallel to Turkey's change in the past. Physically and socially, it will move away from the position of a non-urbanized region, from which outward migration steadily occurs, by making use of the agglomeration economies and the externalities to be provided by the spatial strategy.

The strategic objectives determined for the region are as follows:

- Creating an effective spatial organization;
- Developing human resources and the social structure;
- Increasing the competitiveness of establishments and opening out; integrating with external markets
- Protecting ecological balance and the environment and improving the situation;
- Strengthening institutional structure.

By creating an effective spatial organization, urbanization will hasten and urban centers will develop and the variety and quality of their services will improve, outgoing migration will be possible to pull back to the urban centers of the region by the end of the plan period, with the service provided by central rural settlements, quality of life in the rural area might improve, more productive infrastructure and higher income per capita will be possible in the rural area and the city.

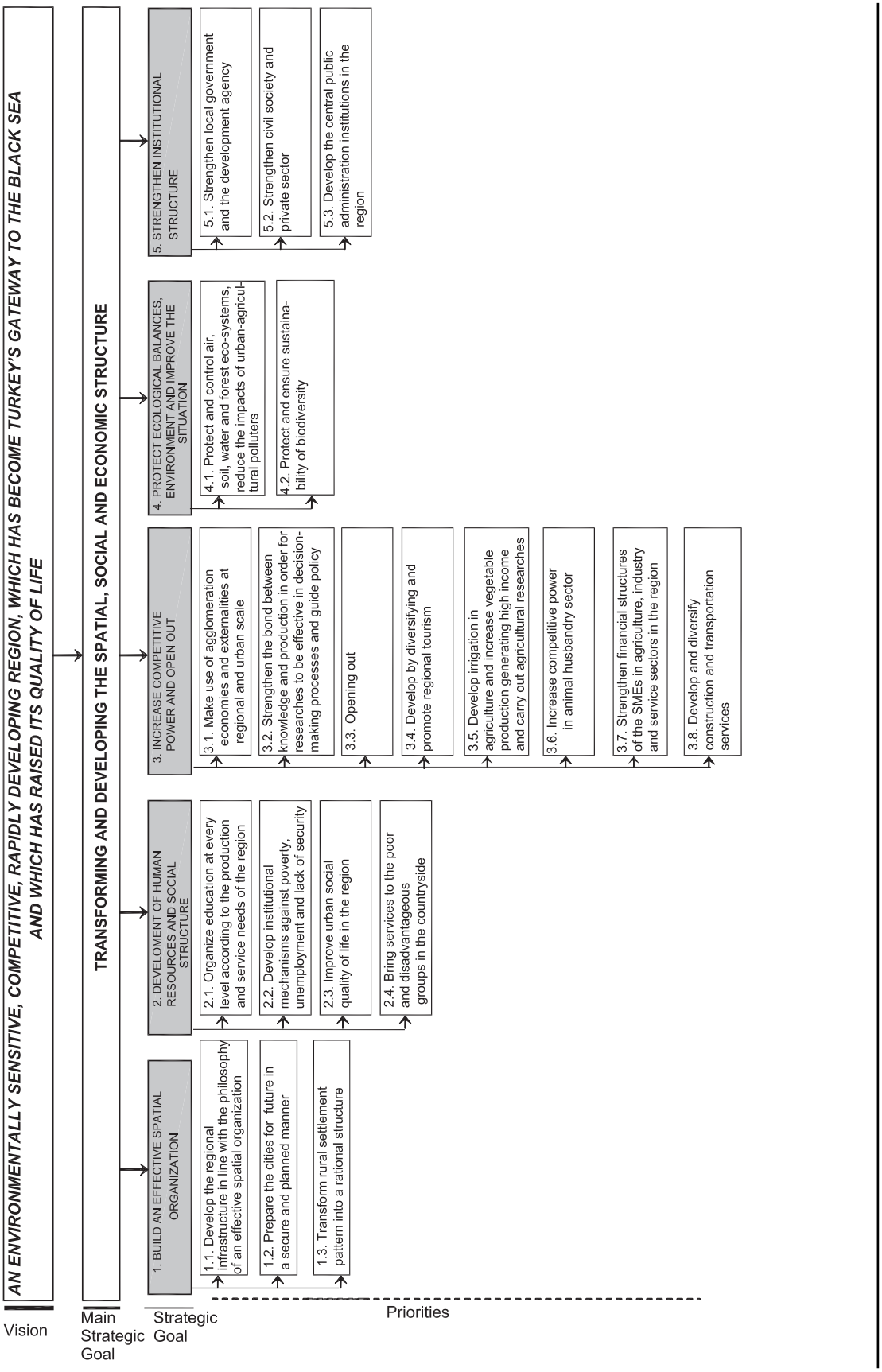
By improving human resources and social structure, education at every level will be designed to answer the service and production requirements of the region; level of literacy of the region's people will be increased. Institutional structure will be set to reduce poverty and more intensive service will be brought to poor and disadvantaged sections in the rural area. Focus will be given to applications in order to improve the quality of life in cities.

By increasing the competitiveness of establishments and developing opening external market integration the economy of the region will be developed. Establishments benefiting from agglomeration economies and externalities, strengthening link between knowledge and production, will ensure increases in expanding out. A variety of regional tourism and promotional activities will be focused on, irrigation in agriculture will be improved, high-income generating plant production will be increased, animal husbandry will be developed, and financial structures of SMEs will be strengthened.

The environment needs to be projected. To ensure that ecological balance is maintained, the following measures need to be taken: project the air, water, and soil; reduce urban polluting effects; project and sustain diversity.

By strengthening the institutional structure, local administrations and DAs will be improved, NGOs and the private sector will be strengthened and the service quality will be increased by improving public institutions in the region (Figure 5.4.1.1).

Figure 5.4.1.1 TR83 Region Strategic Objectives and Priorities



5.4.1 Strategic Objective I: Build an Effective Spatial Organization

Achieving rapid and low-cost social and economic development in the region depends on creating the infrastructure compatible with social and economic development and preparing the spatial organization to support this development. Therefore, transformation into a polycentric structure which will increase the rate of urbanization and allow the regional settlement system to benefit from externalities and agglomeration economies has been defined as a strategic objective. This aim forms a basis for the social, economic, ecological and institutional strategic objectives envisaged for regional development, -Interacting and combining with them constitutes the primary basis of the fundamental strategy.

One of the composite indicators that may be used to summarize the problems of the region is the fact that the region is losing population. People in the region leave the rural and urban areas and relocate to urban areas in other (western) regions. When migration is defined as the perception/identification by rational agents of greater opportunities in other geographical regions compared with their own, this problem, also considering its quantitative and qualitative features, may be interpreted both as a loss of resources for TR83 and as a burden for other regions with regard to their infrastructure and employment conditions.

The main problem of the region is that the population to a great extent has not been urbanized, has been able to create large-scaled and qualified production sequences and has been doing production in the rural area with low productivity and a high rate of hidden unemployment.

In the year 2000, most of the regional population (56,4 percent) lived in rural areas (when a city is defined as a settlement with a population over 20 000). The rural character of the population is more pronounced when compared with the rest of Turkey. The rural population is scattered amongst a large number of small settlements. For the same year, the number of rural settlements is 2 784 70 percent of them having a population under 500. Additionally, 36,5 percent of the villages in the region have more than one area of settlement. Therefore, it is difficult and costly to make the infrastructural investments that will increase the quality of life in rural settlements.

Sixty seven percent of the regional population is employed in the agriculture sector. However, there is a significant problem of hidden unemployment in the agriculture sector and the labour supply is 3 times greater than the need. Agricultural productivity is very low. Moreover, it is observed that there has been an increasing tendency of evacuation and a movement of migration from the rural areas over the last 25 years.

The urban characteristics, urban size and diversity in the region have not yet reached the level to guide and facilitate the development of the region. In order for the cities to become the engine for development, their quality of life should be improved and their employment opportunities increased and varied. Urbanization in the region will provide faster development at a lower cost by benefiting from agglomeration economies and externalities. This strategy has three important dimensions:

- Growth of cities and their strengthening in a polycentric urban structure;
- Development of “central rural settlements” in the rural areas and
- Articulation of settlements with each other and the creation of network.

These three developments will radically change the spatial pattern in the region. Thus, TR83 will have an urbanized structure with a more productive and more diverse economy and a better quality of life in the rural areas and in the cities.

As the first dimension of the strategic objective, for the cities in the region to grow and to strengthen

in a polycentric urban structure, five urban centres (Samsun, Çorum, Tokat, Amasya and Merzifon), which accommodate the functions of level 5 and level 4 centres, have been identified as first-degree centres of agglomeration. Additionally, 12 urban centres (Bafra, Turhal, Zile, Çarşamba, Erbaa, Niksar, Suluova, Osmancık, Sungurlu, Alaca, Terme and Vezirköprü), which have the functions of level 3 centres, have been identified as second-degree centres of agglomeration and the remaining district centres as local service centres. The foreseen morphological structure and functions of the regional cities are given in Figure 5.4.1.2-a.

Samsun will be the most powerful locomotive for the development of the region. The city will contribute to the development of the entire region through its production and the services it offers. As the biggest city in the region and as its gateway to the outside world, Samsun will form a capacity to contribute to the development of other urban centres and of the region through the externalities it will provide for varied and specialized production activities.

It is estimated that within Samsun's polycentric relations and together with the centres whose urban functions it will develop, an agglomeration of settlements with a total population of about one million (including the Basin) will come into being on the coastal bank in the future. This strip of concentration (the metropolitan area of Samsun) will offer a considerable opportunity in the performance of the urban functions that affect regional development, in the acceleration and development of specialization and in providing externalities.

The foreseen growth of population will occur through the migration to be attracted by all settlements within the urban system, although mainly by the city of Samsun. It is foreseen that the migration to be received by the polycentric urban system will be at an increasing rate in terms of 5-year periods.

Çorum will maintain its position as being the most dynamic city of the region in terms of industrialization and will continue to attract the population. Çorum will be a city specialized in the field of industry, maintaining all of the different types of industrialization which it has been developing from the start, and accelerating its development in those industries which create high added value. Together with Sungurlu and İskilip, included in the network of polycentric relations, a total population of about 400 000 will be within this network.

Agricultural production around the city of Tokat and the other cities in the province of Tokat, which are integrated with that city due to their network relations, will diversify and develop further both as a result of their valuable agricultural land and due to irrigation projects. Parallel to this development, industrialization will continue in the cities. The significant feature of this industrialization is the presence of industries based on agricultural raw materials. The urban system of Tokat will develop in agricultural industry, where it has a comparative advantage. It is expected that Tokat will achieve a development in the sectors of industry and services that is similar to Çorum's model of development based on local resources: the development of non-agricultural industry and of industries and services oriented to external markets and relations will also contribute to the improvements of the qualities of Tokat and other urban centres.

Tokat's relations traditionally with the other urban centres with which it has developed network relations have always been stronger in comparison with the other big cities in the region. It is estimated that the total population of Tokat in 2023 will be slightly above 500 000 together with Erbaa, Niksar, Turhal and Zile which are the other urban settlements within this system.

Amasya is a city which has been successful in protecting and maintaining the urban cultural heritage and which has been able to create a course for urban development through its own efforts. Although

being a centre of a rich agricultural area, and on the basis of its agricultural richness, it has preserved its urban identity and developed its cultural infrastructure. Amasya is expected to continue its development in the future on this track in which it is specialized, benefiting from the comparative advantages it has in areas such as education, cultural activities and tourism. In addition to this, the city is expected to start developing in areas such as agricultural industry, the marble industry, the forest industry and furniture-making, to seek the creation of designs and brands with the support it will receive from the university in the city, and to maintain its development by diversifying its resources for development. Due to its advantageous location, Merzifon, one of the districts of Amasya, has chosen a different direction of development from the city of Amasya. The district of Suluova, which is located closer to Merzifon's area of influence, has also displayed a course of development that differs from the city of Amasya. The population of Amasya together with Taşova is expected to be around 170 000 in the year 2023. The migration to be received by Amasya during the plan period will also be more limited in comparison with the other urban settlements in the region. The opportunities and advantages that the city has in terms of its topography, location, rich historical fabric and economical development can be used better with such a population size.

Merzifon is a city that has a high potential for development due to the functions of a level 4 centre that it accommodates, being a historical city centre, its location (at the junction of the axes that are Anatolia's main connecting lines and intersect the region in the west-east direction and in the southwest-northeast direction), its OIZ on the Ankara-Çorum and Samsun highway connection, its entrepreneurship and its dynamism in the development of industrial capacity. There are fertile and irrigable agricultural lands in its hinterland. These advantages make Merzifon, although a district, one of the most advantageous urban centres in the region for development. The population of Merzifon is expected to reach 230 000 together with the other urban centres with which it will be in a network of relations, including Osmancık on the transport axis in the west-east direction and Suluova to the east.

As the second dimension of the strategic objective, 57 rural settlements with the potential of development have been identified as "central rural settlements.

The third dimension of the strategic objective is to strengthen the relations between regional settlements so that they interact with each other and synergy is created on the regional scale. The estimated relational structure between the settlements of the region is given in Figure 5.4.2.1-b.

The strategic objective of transforming the spatial organization into a polycentric structure supports the priority of "Improving the Infrastructural Services and Protecting the Environment" and the priority of "achieving rural development in a balanced structure" under the medium-term strategies (DPT, 2003-5:73). This strategic objective is also parallel to "Increasing the Economical Strength of the Regions, Reducing the Inter-regional Development Differences and Accelerating Rural Development," the fourth axis of development under the Preliminary National Development Plan (2004-2006) which receives inputs from the long-term strategy. Furthermore, the "National Rural Development Strategy" with its principle of 'spatial concern' and 'strategic objective 2: developing human resources and their level of organization and the local development capacity' and 'strategic objective 3: developing the physical infrastructure services and improving the quality of life in rural areas' (and the two priorities of this strategic objective) is also a strategy supporting and strengthening spatial arrangements envisaged in the rural areas (Yüksek Planlama Kurulu, 2006).

As seen in Table 5.4.1.1, there are strengths and opportunities, including in particular the existence

of an urban grading order suitable for transforming the spatial organization of the region into an efficient structure. On the other hand, to eliminate the threats and the weaknesses against this transformation, the cities need to be prepared for this transformation.

The transformation of the functions of these settlements, their ability to articulate with/complement each other, the condition of the transport and communication network between settlements, and a developed culture and behaviour of cooperation between cities themselves, will be effective in the formation of the above-described spatial structure.

The transformation of the functions of these settlements, their ability to articulate with/complement each other, the condition of the transport and communication network between settlements, and a developed culture and behaviour of cooperation between cities themselves, will be effective in the formation of the above-described spatial structure.

Table 5.4.1.1 Strategic Objective I SWOT

Strengths	Weaknesses
● The existence of an urban grading order suitable for transforming the spatial organization of the region into an efficient structure	● The pressure exerted by high population in the rural areas
● The existence of a strong will to develop industrial and agro industrial capacity	● Old aged population working in agriculture and this, coupled with lack of resources, preventing efforts to increase rural incomes
● The existence of an urban culture with a long past in the region	● The failure to address problems of land development and urbanization in cities adequately and through scientific approaches
● The existence of an urban-historical fabric in the region	● The degradation of nature, failure to protect historical and cultural assets and lack of promoting them
● The existence of a rich natural and cultural heritage in the region, endowed with a mountainous structure, a coastal structure, and historical works, some of which are protected under international agreements, and the existence of resources suitable for special interest tourism	● The inability of a majority part of the region to benefit from services and its remoteness from major markets
Opportunities	**Threats**
● The opportunity for local administrations to prepare for rapid urbanization	● The location of the region on the North Anatolia Fault Line

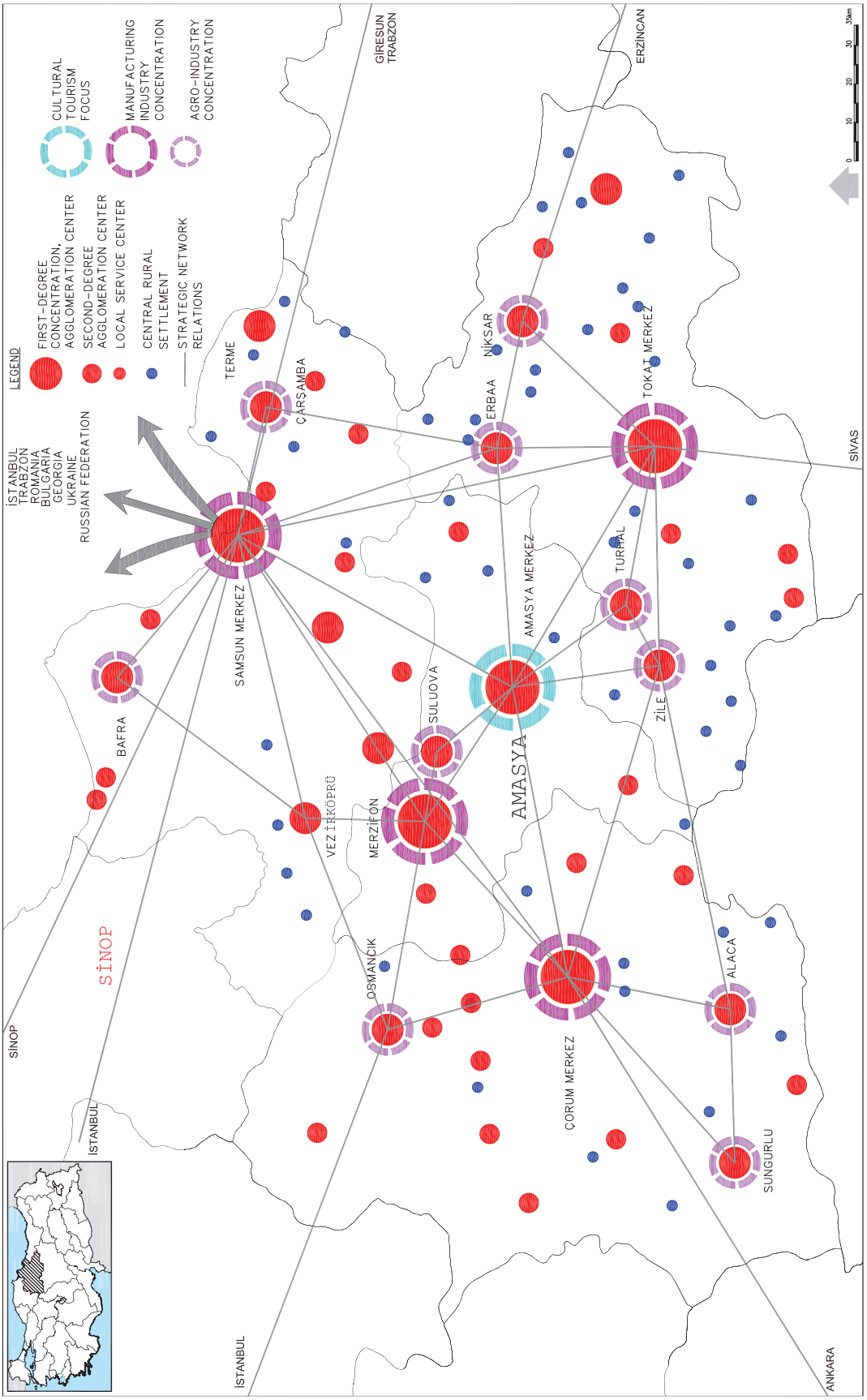


Figure 5.4.2.1-b Envisaged Relational Structure

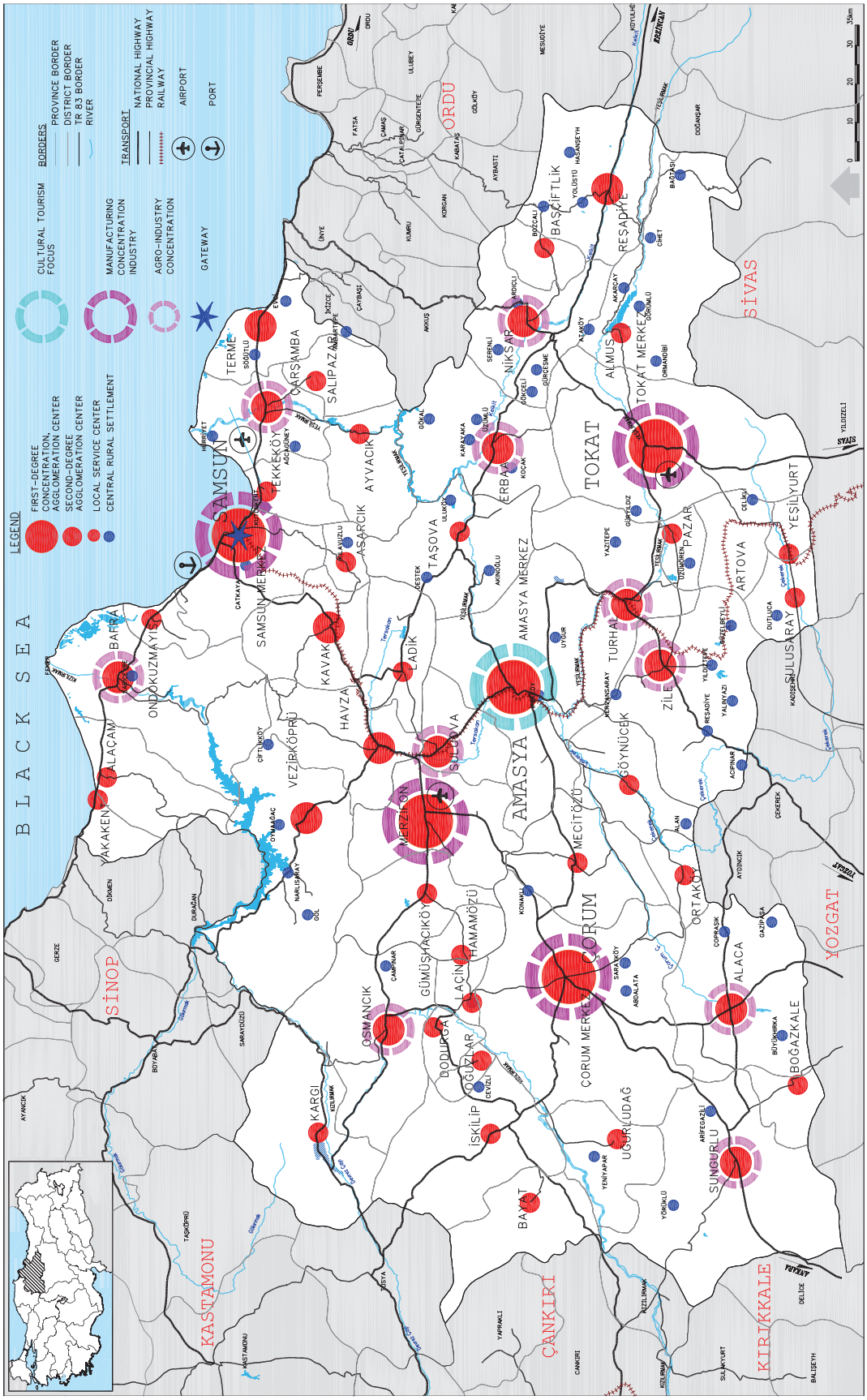


Figure 5.4.2.1-a Envisaged Morphological Structure and Functions

5.4.1.1 Priorities

In order to provide a development at the regional level rapidly and with a low cost

- Developing the regional infrastructure in accordance with a concept of effective spatial organization,
- Preparing cities for the future in a safe and planned manner and
- Transforming the rural settlement pattern into a rational structure

have to be implemented. On this account, the areas mentioned above are determined as the priorities under the strategic objective I.

Priority 1: Develop the Regional Infrastructure in Line With the Philosophy of an Effective Spatial Organization

One of the main requirements of regional development is to develop the regional transportation, communication and energy infrastructures. The 'friction' caused from the transportation infrastructure and services have to be minimized in order to provide the transportation on a regional scale and with the extraterritorial regions. The regional transport infrastructure needs to be developed for the region to benefit from agglomeration and concentration economies, for the settlements to complement each other in the production and marketing process, for the region to have access to markets outside the region, and for the transport infrastructure to facilitate/support these relations.

The infrastructures have to be improved to provide uninterrupted and high-quality energy, which has vital importance for the quality of life and the factors of production in settlements, to the centres of agglomeration and production. On the other hand, the communication infrastructures have to be developed so that the urban centres where concentration will be encouraged can articulate with each other in terms of communication and for the expansion of the region's foreign trade.

Priority 2: Prepare the Cities for Future in a Secure and Planned Manner

The implementation of the main aim and the strategy determined for the formation of a new spatial pattern, one of the strategic objectives identified for the development of TR83 Region, will be started by preparing a spatial environment that attracts and enables economic and social activities, and contributes to their sustainability, in important urban settlements which will act as the engine for development.

The urbanization in the region has to be developed and become stronger. However, in order to implement this in the direction of development, the cities have to be well prepared and such preparation must start before the arrival of the population expected to join the city. In order both to reduce and eliminate their current problems of the cities and to ensure that newcomers contribute to the development of the city and of the region, the cities must have strategic plans and be ready to embark a participatory application.

The most important physical constraints on the subject of the urbanization in the region are the risk of earthquake caused by NAFL which passes under the middle of the region. During the determination of the urban and rural settlement pattern and preparation of the city development plans, the new settlements have to be directed to the areas of hardground instead of the agricultural areas of sedimentary plains. The existing buildings have to be transformed as earthquake resistant; the necessary measures have to be taken and applied finically in the construction the new buildings according to the existing laws and regulations in order to decrease the risks posed by earthquake. These subjects are stressed in the SWOT analyses of the region and emphasized momentously (Table 3.3.3.1 SWOT).

Priority 3: Transform Rural Settlement Pattern into a Rational Structure

Approximately the half of the population of the region is living in rural areas. The fact that the rural population is located in small settlements and widely scattered in spatial terms and that there is a large number of villages with affiliated settlements causes an excessive fragmentation of the rural population in the region. This excessive fragmentation of the rural settlement is complicating both economic activity and organization of basic social and technical infrastructure. This settlement pattern cannot provide the necessary size for the formation of various economic activities and has the effect of increasing the costs and reducing the efficiency in the provision of basic infrastructure and services. The strategic objective and priorities, and the main aims of the National Rural Development Strategy framework are supporting the priorities predicted for TR83 Region.

Depending on the settlement pattern, the non-existence of some economic activities and social and technical infrastructure in the settlements and the low accessibility causes the low life standards in the rural settlements. The necessary main services have to be provided economically and their qualities have to be increased in order to increase the life standards in the rural settlements. It will be possible to form the rural population in greater settlements by evolving the rural settlement towards a more rational structure by increasing the rural quality of life without creating idle capacities and through efficient use of public resources. In this way, better quality services will be provided to the rural population more economically. In the settlement pattern, as the number of small settlements gradually decreases and as the population concentrates in relatively greater rural centres, this will enable the rural population to have access to better quality and more continuous services and some economic activities will be developed depending on the concentration of the population. These developments will make a great contribution in increasing the life quality in the rural settlements.

5.4.2 Strategic Objective II: Development of Human Resources and Social Structure

The development of the region depends on the formation of human capital and social capital to realize economic development and having the cities ready for this transformation together with the economic developments. The physical-spatial, economic, ecological and institutional strategic objectives envisaged for regional development are thus complemented by and integrated with the social strategic objective. CSA, plan documents and the connections with the SWOT analysis of the Strategic objective II are given below briefly.

The average annual population growth rate in the region decreased consistently between the years 1980 and 2000 (Table 2.1.1.1). Between the years 1990 and 2000, the province of Çorum lost population. In Amasya and Samsun, the average annual population growth rate is well below the national average. Rural population is decreasing in all of the provinces except Tokat and in the region as a whole. The evacuation of the rural areas and the senescent population and the descending population in settlements not benefiting from services at the required level will create economic and social problems. In addition, the urbanization rate in the region is also below the national average. The rural community has been continuously migrating from the rural areas to the city for the last 50-60 years, and the migration has been mainly (70 percent) from cities in the region to cities in other provinces.

Under the aim of “formation of a high technology-oriented economy that can compete in the international markets,” which is among the aims in the PNDP, one of the priorities is “forming the infrastructure for transition to the knowledge-based economy,” and the priorities under the aim of “developing human resources and increasing the employment” are “developing education services and creating equal opportunities in employment” and “improving health care services” (DPT, 2003-

5: 75-77). In the second development axis which results from this strategic objective in the PNDP, "developing human resources and increasing the employment" is predicted and strengthening the education system with active employment policies is determined as the priority of this axis (DPT, 2003-5: 106-110).

The main aims and measures included under the axis "B. Social Inclusion and Combating Poverty" of the development axes of the Medium-Term Programme strategies, and under the headings "A. Education", "B. Health" and "D. Science and Technology" (DPT, 2005-3: 18-35). The plan decisions which are summarized with their main headings constitute the upper scale decisions for the strategic goals and priorities of the region.

For TR83 Region, improving the quality of life in rural-urban continuity, ensuring that every level of information is more accessible and of better quality, and developing the human resources and the social structure, have been identified as a strategic objective. Considering low urbanization, outward migration, the education needs at all levels, and other findings, as determined in the CSA, in line with the development axes and the policies designed for the country in the PNDP and the MTP, the expectations of the local community are taken into account.

The importance of education and developing the human resources are emphasized in the SWOT analyses which are implemented in the region. Additionally, the subjects like improvement of the women's situation, organization of the community-development of social society, strengthening the local administrations are coming into prominence in the regional SWOT analyses (Table 5.4.2.1).

As it is emphasized in the SWOT analysis, increasing the capacities of the existing universities in the region and strengthening their knowledge

Table 5.4.2.1 Strategic Objective II SWOT

Strengths	Weaknesses
• The region having a deeply rooted cultural heritage	• The social security applications are not being sufficiently developed in the region
• A certain amount of development in the region in terms of non-governmental organizations	• The high rates of unemployment and poverty
• The region losing its population in the rural areas	• The insufficiency of education and health services
• The region having low population density	• The women being of secondary importance and having low level of education
	• Insufficient protection & maintance of historical and cultural assest
	• The relations and organization between the non-governmental organizations are weak
Opportunities	**Threats**
• The possibility of using incentives for the establishment of non-governmental organizations	• Inability of the regional people to connect with the outside world due to not having sufficient access to information technologies.
• The possibility of achieving rapid development by taking advantage of other externalities of the universities and their relations with every sector	
• Providing the foregrounding of the local initiative in the institutionalization of the region with the arrangements implemented in the laws related with the local administrations	
• The possibility of obtaining the necessary technical and financial assistance to protect local cultural assets in the integration process to the EU	

and skill levels in order to increase the education level in the region are evaluated as opportunities for increasing the education level of the region.

5.4.2.1 Priorities

The development of human resources and social structure depends on the formation of human capital and social capital and having the cities ready for this transformation together with the economic developments. The physical-spatial, economic, ecological and institutional strategic objectives envisaged for regional development are thus complemented by and integrated with the social strategic objective.

Priority 1: Organize Education at Every Level According to the Production and Service Needs of the Region

The region is in a better condition than other regions with priority in terms of certain social indicators. The rates of literacy and the rate of school attendance at the various levels of education are close to the national averages. A similar situation is also true for the health and other indicators of social development. However, the rate of school attendance in vocational and technical secondary education is 19,7 percent, which is below both the national average and the averages for the neighbouring regions of TR72, TR82 and TR90.

One of the priorities of "Developing the Human Resources and Increasing the Employment" in the PNDP is "developing education services." The measures of strengthening the relation between the labour market and education, increasing the utilization of knowledge and communication technologies, enhancing the opportunities of lifelong education for adults" are taken into consideration in YBDP activities (DPT, 2003-5: 109).

In addition, the policies numbered 1, 2, 3, 4 and 5, which are included in the section "A. Developing Human Resources and Increasing Employability" under the heading of "development axes in the programme period" in the MTP, are taken into consideration. Otherwise, the policies numbered 3, 4, 5, 6, 7 and 11, which are under the section "A. Education" of the sectoral policies, the policies numbered 8 and 9 of the section "D. Science and Technology" and the policy numbered 7 of the "E. Agriculture" section (DPT, 2005-3: 19-21 and 29-36), are taken into consideration in YBDP activities.

The priority has been given for organizing the regional area for the public services and especially the education services in order to provide these services to the public easily and with low cost and improving the quality and extending the scope of education services at all levels from pre-school education. Assuming that the rates of full coverage in basic education will be achieved for girls and boys as required by the law, it will be possible to implement the education priority by developing vocational education, ensuring the qualitative development of the regional universities and vocational high schools, strengthening adult education parallel to the urbanization, and achieving acceleration and transformation in agricultural extension policies

Priority 2: Develop Institutional Mechanisms against Poverty, Unemployment and Lack of Security

In all four provinces of the region, the level of income per capita (2001) is well below the Turkish average. Although income per capita is higher in Samsun and Çorum, the regional average is quite low, and in the socio-economic development ranking (2000) of the provinces, Samsun ranks 32nd and Tokat 61st (Table 2.1.2.1). It is important that new citizens should not become marginalized and social exclusion have to be prevented for the poor while the regional urban population grows. For this reason, providing young people with skill acquisition training in order to increase the employment opportunities and increasing the entrepreneurship with the benefiting from micro loan systems have priority. The programmes which are supporting the small scale interventions for activities intended in

vocational training or entrepreneurial training are included among the priorities.

In the PNDP, active employment policies are included among the priorities for the second development axis. This priority includes supporting the employment of disadvantaged groups and young unemployed in the labour market, action for those who have lost their jobs, and developing the adaptation capacity of employees and entrepreneurs in changing market conditions (DPT, 2003-5: 108).

The "Growth and employment" policies of the Macroeconomic Policies and Aims section in the Medium-Term Programme and the policies which are numbered as 4, 6, 8 and 9 in section A of Development Axes, the policy numbered 4 of section B and the policy numbered 17 of section E, and the policy numbered 12 of section A. Education among the sectoral policies (DPT, 2005-3: 19-21 and 29-30) are taken into consideration.

In consideration of the foregoing, the priority of developing institutional mechanisms against impoverishment and insecurity will be implemented by re-arranging the supports provided against actual and possible impoverishment in the cities of the region, developing mechanisms to reduce absolute and relative poverty, increasing employment and implementing the approach of active employment against unemployment.

Priority 3: Improve Urban Social Quality of Life in the Region

As the city management bodies operate the mechanisms that will strengthen the participation of citizens, the social features of city life will become enriched. Considering that one of the main spatial strategies for the region is urbanization, the cities need to be economically and socially prepared so that they can integrate newcomers. Women's participation in urban life will be developed through the joint efforts of citizens and other actors to integrate especially new female citizens into urban life and to raise the quality of life. However, one fourth of women in the region are still illiterate.

To achieve sustainable development, it is necessary to enhance local development initiatives and identification with one's place of living and to support projects ensuring participation by all parties. Such projects can be benefited from the grant funds.

Although, the urbanization is not explicitly mentioned as a strategic goal or priority in the PNDP, it may be assumed that the axis of "increasing the economic strength of regions and reducing the interregional gaps in development" (together with the improvement of infrastructural services) implicitly covers this aim and that increasing the urban quality of life is therefore included in the plan. The "priorities of the medium-term national regional development strategy" are determined in the PNDP. Of the five priorities listed here, the third is defined as "supporting physical and social infrastructure, which is important for implementing the new investments and increasing the quality of urban life" (DPT, 2003-5: 124).

To achieve the priority of improving the quality of life in the region, the consideration has been given to the priority 1.2 of the preparing the cities for the future in a planned manner will be implemented in the framework of the "spatial" strategic objective and the priority 4.1 of reducing the effects of urban pollutants which will be implemented in the framework of "protecting ecological balances" strategic objective. In addition, in order to implement this priority, the equality between women and men in cities will be developed, women will participate more in social and economic life, health programmes will be organized through a more rational system, the access of every section to the system will be enhanced, and social inclusion will be achieved for those who have migrated to cities.

Priority 4: Bring Services to the Poor and Disadvantageous Groups in the Countryside

In TR83 Region, the GDP (2001) created in agriculture is about one fifth of total regional income. On the other hand, more than half the population lives in rural areas (Tables 2.1.1.1). A major part of the rural population lives in forest villages. The evacuation of the rural areas will lead to a further decrease in the already inadequate quality of life of the population remaining in those settlements. The spatial strategy predicts that the settlement pattern of the rural area will develop accordingly and form a new structure; however, this is a process of social change that will spread over time and take place at a relatively slow rate. For this reason, the groups that are losing their advantages in the rural areas need to be addressed with priority.

The aims of the medium-term strategy include "achieving rural development and reducing social disparities that arise from poverty and income inequality." For this reason, the priorities of the medium-term national regional development strategy envisage, among others, achieving rural development, stabilizing migration from the countryside to the city, and raising the levels of organization and education in the countryside (DPT, 2003-5:126). In addition, one of the actions under the priority of "active employment policies" is to create new areas of employment in the rural sector and additional income for rural households.

The priority of "providing services to the poor and disadvantaged groups in the rural areas" will be implemented in the region by reducing absolute and relative poverty, diversifying and increasing employment, decreasing the hidden unemployment rate, and improving the health care and social services in the rural areas, regarding the higher scale decisions above and together with the priority of "transforming the rural settlement pattern into a rational structure" under the strategic objective of transforming the spatial structure and the priorities of "developing the forests" and "controlling soil erosion" under the strategic objective of protecting ecological balances.

5.4.3 Strategic Objective III: Increase Competitive Power and Open Out

There are several weaknesses that prevent the growth of industries located in the region. Although some of them are problems that need to be solved at the national scale, there are also weaknesses specific to the region. All the manufacturing industry establishments in TR83 Region, excluding the state-owned enterprises, are in the status of SME. However, the average size of SMEs located in the region is below both the national and the EU averages, and they face serious difficulties in having access to adequate financing. These conditions weaken establishments, reduce their efficiency, and cause them to produce for the region alone. In addition, unconscious, imitative investments and idle capacity are observed to be high. To achieve competitiveness in both national and international markets, the measures need to be taken to encourage SMEs to join their capital and human resources. However, types of behaviour such as making joint investments, merging capital funds, and acting jointly to avoid unnecessary expenditure are not sufficiently developed in the region. In the event of failure to adopt such behaviour, entrepreneurship becomes more difficult and savings can not be turned into investment. Although certain institutional structures exist in the region, they have serious shortcomings in providing advice and information to enterprises and carrying out R&D researches. The weakness of market research and market connections makes the region isolated. These weaknesses point out that the areas that should be potentially supported and developed.

Similar problems are observed in agricultural production; in the agricultural sector, family enterprises, which may be regarded as SMEs, have very low competitiveness. Although TR83 Region ranks second among the 26 regions at NUTS level 2 in terms of agricultural production value, it ranks thirteenth in agricultural production value per

Table 5.4.3.1 Strategic Objective III SWOT

Strengths	Weaknesses
● The existence of fertile and vast agricultural lands	● The small size of agricultural enterprises
● The high capacity of irrigation	● The excessive fragmentation of the land and slow progress in land aggregation
● The suitable climate conditions for the all kinds of agricultural production (except citrus fruits)	● Heavy winter conditions in mountainous areas, difficult climate conditions and the existence of areas with little rainfall
● The rich diversity of agricultural products suitable for processing	● The deterioration in animal husbandry
● The existence of suitable conditions for the growing of exportable products (such as artichoke and okra)	● The insufficiency of fodder production
● The suitable environment for aquaculture	● The lack of a livestock exchange
● The forest assets above the national average	● The industrial businesses generally being very small and operating with old technology and low efficiency
● The existence of specialized farmers who are experienced in vegetable growing and perform contracted farming	● SMEs lack of access to financing and of technological development opportunities
● The existence of mineral deposits (marble and lignite) and geothermal resources	● Imitative industrial investments and high idle capacity
● The existence of a diverse industrial structure and industrial nucleus	● The lack of industrial consultancy services and R&D activities
● The opportunities of transforming the agricultural production which will be increased by the irrigation, into agricultural industry	● The insufficient spirit of enterprise and bank deposits not being turned into investment in the region
● The existence of Small Industrial Estates (SIE) and Organized Industrial Zones (OIZ)	● The shortcomings in transport infrastructure and disconnection of highway, railway and air transport systems
● The opportunities of “deepening” in industries based on natural resources	● The low quality of service in transport due to insufficient volume of business
● The existence of a group of active entrepreneurs who are open-minded to change and have proven this and the existence of an experienced and eager manpower	● The limited employment opportunities for educated young population
● The opportunity of utilizing the thermal resources in tourism and greenhouse farming	● Tendency of educated/qualified young population to leave the region (selective migration)
● The strong potential in areas of special purpose tourism such as plateau, mountain and history tourism	● The shortage of trained labour in all sectors
● The existence of universities and of ASs and VASs affiliated to them and their developing effect on their surrounding areas	● The lack of facilities and publicity in the tourism sector
● The existence of vocational schools which educate skilled manpower for the needs of the region	● The existing universities and ASs, not having programmes towards skills needed in the region
● The TEKMER established in the region	● The weakness of the entrepreneurship, collective action and social cooperation
	● The lack of a strong relation between education and work
	● The insufficiency in knowledge and awareness of cultural and historical heritage
Opportunities	**Threats**
● Three provinces (Amasya, Tokat and Çorum) being covered by Incentives Law numbered 5084 and all four provinces being on the list of Areas with Priority for Development	● The social problems created by the restriction of planting areas under the sugar, hazelnut and tobacco laws,
● Turkey, being a member of Black Sea Economic Cooperation	● Importation, reducing the production of some agricultural products
● The opportunity for Turkey to benefit from EU funds in different areas to reduce interregional gaps in development	● The investments commenced by the DSİ being delayed or not completed
● New universities at the stage of being established in the region	● The continuing dependence on public monopolies in products such as tobacco and sugar
● Opportunity to arrange common training programmes in the framework of EU programmes	● One province (Samsun) not being covered by Incentives Law numbered 5084
	● The greater demand and increased employment opportunities for trained/qualified labour in more developed regions
	● The immigration of trained and young population to the extraterritorial regions

capita or, in other words, agricultural productivity (DPT, 2003-5). Due to the small size and excessive fragmentation of agricultural enterprises in the region, there exists a structure that provides the family need with priority and markets the surplus production, rather than carrying out market-oriented, large scale production.

As a result of these problems, increasing the competitiveness of establishments in the region and achieving their expanding into foreign trade, emerges as one of the most important strategic objectives. This aim is also stated in the Medium Term Programme (MTP) as one of the most important development axes, and "the establishments are expected to become organizations possessing high technological capability and skilled manpower, able to adapt to changing conditions and to compete in national and international markets."

5.4.3.1 Priorities

Priority 1: Make Use of Agglomeration Economies and Externalities at Regional and Urban Scale

In order to increase the competitiveness of enterprises, one of the most important priorities is to utilize the agglomeration economies and the externalities on the regional and urban scale. The establishments prefer to locate in the vicinity of the city due to the reasons such as proximity to specialized intermediary service firms and a pool of manpower with different skills, easier easement of access to the technological developments and the market information, and common use of the infrastructures. By means of this proximity, while realizing their functions such as new product development, design, manufacturing, distribution, marketing and presentation, establishments increase their efficiency and profitability by making use of externalities and also decrease their costs of monitoring technology.

The concentration of production and service units in TR83 Region in certain centers is expected to create a significant acceleration for development by attracting both population and capital. However, it is desired that this concentration should be such as to support relations with neighbouring settlements and should deepen through network relations. In this context, the organizations that foster agriculture-industry cooperation come to the fore; in other words, together with the use of new technologies and the services and with the training activities that support them, the relations will be established between agricultural production and industry, and it will be possible to produce raw materials at the sufficient quantity and quality. In addition, the needs arising from increased agricultural production and urban development are expected to lead to the development of new investment areas in the region and to strengthen the input-output relations between different enterprises. As a conclusion, the industry and the agriculture will become parties that should solve their problems in the framework of the same objective.

One of the most important instruments for companies to make use of agglomeration and external economies is to develop areas such as OIZs, SIEs, industrial zones and technoparks and to support firms to locate in such areas. This concentration will help both reduce the costs of infrastructure and production and develop the capacity of companies to learn from each other and to make business jointly. The utilization of joint infrastructures and services by companies enables them to produce in a more competitive structure by sharing burdens which they would not be able to carry on their own and also provides advantages in terms of protecting the environment. This aim is stated also in the Medium-Term Plan (MTP, IV-F-5) and such concentrations are supported. It is stated in the SWOT analyses of the region that establishing enters like OIZ, SIE and technopark have a positive effect on the development and these structures in question have to be enhanced (Table 5.4.3.1).

Priority 2: Strengthen the Bond Between Knowledge and Production in Order for Researches to be Effective in Decision-Making Processes and Guide Policy

Technological knowledge production and developing the skills of utilization of the generated knowledge and sharing the knowledge with the related institutions are considered as the most important factor in the constitution of the competitiveness conditions in today's world. A part of the knowledge that is used for the development of the region, especially of the knowledge used in agricultural and industrial production, is generated from local sources. Such knowledge is regenerated every time within joint relations, in a joint forum, as a solution to a joint problem. The creation of knowledge may be conceived as a public good within a regionally based economic formation. The knowledge differs from other goods and public goods in that it is not consumed as it is used and that, rather, it grows as it is used and shared. On this account, supporting the generation and sharing of knowledge will play a strategic role in the development of the region.

Turkey is a country implementing policies to strengthen its competitiveness, starting from its more developed regions, in a perspective of greater integration with the EU and the outside world. For TR83, in order to have a more advanced position in Turkey, it is a basic priority that the region should develop its innovation capacity. For the region both to develop such a perspective cognitively at the start of the planning period and to support and maintain it through suitable institutional structures is a strategic choice. Thus, there is a strategic importance for the region in creating a better trained workforce and institutional structures in order to enhance innovation capacity. The concept of a 'learning region' is based on the unity of production and education, within this structure, the relations between research and education institutions, local governments and enterprises in the region have to be strengthened and R&D activities to be continued within mutual learning processes. In other words, it is believed that implementing the developed techniques in practice and solving the problems that emerge again in cooperation will create the mutual learning process and accelerate development.

For a sustainable development, the region should develop also in areas that cannot be easily imitated in the long term and that require a certain accumulation of experience and knowledge. Therefore, efforts need to be made both to achieve efficiency, competitive advantages and accretion value growth in those sectors where the region is already in an advantageous position and to develop products involving the use of new technologies and having much greater accretion value. Research conducted by the TÜBİTAK leads the way in this matter. Also in the MTP, increasing exports by developing new sectors as well as the conventional sectors is stated as an important sectoral policy (MTP, IV. F.2).

It is necessary to increase the range and quality of services offered by service SMEs and to provide the required publicity and organization for opening out to other countries. The necessary measures will be taken to develop the image of regional products and to create brands in products that represent the region and for institutions which will perform the quality control of products manufactured in the region and issue certificates recognized at the international level to operate in the region. The strengthening the relation between the knowledge and production and the conditions of the universities on this subject are stated in the SWOT analysis meetings (Table 5.4.3.1).

Priority 3: Opening Out

The region cannot expand its foreign trade sufficiently in the production areas of agriculture, industry and services. The region has only produced for itself and withdrawn into itself. Although there are several companies that have succeeded at the individual and institutional level, they could not reach a sufficient number and level. One of

the region's strengths for industrial development is that it has the necessary transport opportunities for industrial products to reach various markets. The strong north-south and east-west highway connections of the region, and its having a sea-coast and a harbour, will provide an advantage for the development of trade especially with the neighbouring countries to the north.

In addition to the foregoing, the weakness of market research and market connections locks the region in itself. Turkey's path of expanding foreign trade, developing its export and import trade and becoming a member of the EU, which has been continuing since the 1980s should be taken into consideration for the future of the region. When the future of the region is compared with the rest of Turkey's development, the region will have to implement its relations with the outside world by developing them through a multitude of channels. It is of strategic importance for the region to develop its foreign trade capacity mainly in the BSEC and EU framework. The region will achieve expanding into foreign trade by exporting the goods where it has comparative advantages (including in particular fresh and processed vegetables and other agricultural products) and by building the institutional structures to create and maintain the necessary standards for exportation (Dolsar, 2004-1). In expanding into the external markets, it is important to put in place the institutional structure that will ensure conformity with standards of production and trade and external market requirements and that will closely monitor changes in the outside world/ market. This is an organizational capacity which the region can achieve through its own means.

Priority 4: Develop by Diversifying and Promote Regional Tourism

Tourism, one of the activities that need to be developed in the region, is an important area which mobilizes a large number of sectors and branches of work, which creates employment, and which can contribute to the integration of the region with the outside world.

In the MTP (2006-2008), it is stated that the main aim is to create a tourism sector seeking to raise its quality of service, diversifying its marketing channels and targeting high income groups, making natural capital sustainable, and promoting types of tourism that conform to the comparative advantages in the Turkish tourism sector (DPT, 2005-3). The development of tourism in the region will help raise the social quality of life in cities, develop civic consciousness and protect the cultural assets. Diversifying tourism and extending it thousand the entire year and to broad masses will make a positive contribution to the socioeconomic development of the region.

Tourism investments need to be addressed through an approach that protects and develops the natural, historical, social and cultural environment (DPT, 2005-3), the investments have to be diversified and efforts have to be made to extend tourism activities to the whole of the year, and the activities in the region have to be planned and implemented in this direction. The changes in tourism demand need to be continuously monitored, and promotion activities to be conducted in accordance with changing conditions (DPT, 2005-3). The opportunities of history, nature and thermal tourism in the region, which have not been sufficiently exploited so far, need to be addressed in an integral fashion.

The integration of the plateaus, the endemic plants, the bird sanctuaries and the wetlands in the region with the activities of history and culture tourism, and developing hunting tourism, eco-tourism and thermal tourism, with the rural community participating in these activities by developing the countryside lodging, will increase the income of the rural sector and diversify tourism. The necessity of developing regional tourism and increasing the presentation are stated in the SWOT analysis meetings (Table 5.4.3.1).

Priority 5: Develop Irrigation in Agriculture and Increase Vegetable Production Generating High Income and Carry out Agricultural Researches

More efforts are needed to extend the areas of certified and hybrid seed production and greenhousing vegetable agriculture and to develop the production of medicinal and spice plants in the region since these create more accretion value in comparison with traditional crop agriculture. With the production of crops that can be the brands of the region and with the development of fruit growing and viniculture, the accretion value of agricultural production in the region will increase and more employment opportunities will be created.

Irrigation is an activity that contributes to the development of many sectors, that increases employment and that helps the continuity of agricultural production without being dependent on the annual distribution of rainfall by diversifying agricultural production. The area that needs to be opened up for irrigation in the region (55 percent) is more than the actually irrigated area (Table 2.1.2.5). For this reason, the irrigation, which is the security of agricultural activity, must be developed in the region and new areas opened up for irrigation. The irrigation will create greater production, accretion value and employment in comparison with dry cereal growing, contribute to the development of the region, and enable the production within the region of the necessary raw material for the agricultural industry. Ongoing irrigation investments in the region have a very slow rate of completion. The stock of public projects in the irrigation sector will be streamlined, the projects rearranged in order of priority, and sufficient resources allocated for those projects which have greater priority (DPT, 2005-3). A new prioritization has been made for the region and proposals have been developed to increase areas opened up for irrigation every year through cost-reducing measures.

Considerable decreases will be achieved in the costs of construction since the lengths of canals and service roads will be shortened in the event of preparing and implementing the irrigation projects together with land aggregation, the most important component of in-field development services, to obtain the expected benefit from irrigation. To achieve water economy in irrigated areas, to reduce drainage, and to obtain a greater benefit from unit water and soil, importance must be given to the practical agricultural research which will bring solutions to the farmer's problems.

There is a need for agriculture and industry integration and the institutionalization in order to offer the crops growth in the region through the development of irrigation and irrigated farming, in fresh or processed form, to the external markets and to carry out agricultural production in line with the demand of the external markets. The private and public sectors and NGOs have to implement a series of activities for this purpose. The necessary work must be performed for the development of contracted farming, high-quality crop raising and product classification, storage, and processing and certification services and for the establishment of sectoral foreign trade companies. All these points were stated during the SWOT analysis meetings held in the region (Table 5.4.3.1).

Priority 6: Increase Competitive Power in Animal Husbandry Sector

In the region and generally in the country, interest in the animal husbandry sector has steadily declined in recent years and, as a result, considerable decreases have been observed in the animal stock (Dolsar, 2004-1). In the Medium-Term Programme it is stated that measures will be taken for stability of production in the milk and meat markets (DPT, 2005-3), and regional animal husbandry needs to be developed in line with this principle. The development of the animal husbandry sector, which provides about 25 percent of the region's agricultural product, will have a positive effect on

the development of many other sectors. In the region, there are large numbers of native breed animals with inadequate meat and milk yield. The yield per animal unit in the region is below the national average and about one third of the level in EU countries. It seems possible to increase the yield per unit animal and productivity by improving the animal breeding and the care and feeding conditions in the region. The development of dairy farming and stockfarming will contribute to providing the animal protein needed by the people of the region and the country, to the development of meat and milk processing facilities, and to the increase of crude and dense fodder production. With the eradication of contagious diseases that occur in animals and of contagious diseases from animals to humans, which are known as zoonosis, animal husbandry in the region will develop. The bringing together under a plan of animal husbandry enterprises scattered and haphazardly located in the vicinity of cities, the creation of animal pedigrees, and the organization of animal fairs in a different centre every year to select the best breeding animals and to increase exchange of information among breeders, will raise interest in the sector. In addition to technical measures, the necessary administrative measures must be taken and institutional structures created for the sector to achieve the EU norms. It was stated during the SWOT analysis meetings held in the region that animal husbandry was declining and that it must be developed (Table 5.4.3.1).

Priority 7: Strengthen Financial Structures of the SMEs in Agriculture, Industry and Service Sectors in the Region

Although there is accumulated capital in the region, it is transferred to outside the region, including Istanbul in particular, and not invested in the region. In order to keep the capital in the region held by regional SMEs, agricultural establishments and individuals, first of all, new investment areas have to be introduced to entrepreneurs and the participation of the people needs to be achieved through education and information meetings for them. The public sector and local administrations should assume a function that facilitates, guides and unites private sector investments and creates the necessary infrastructure for capital to be invested in the region, placing emphasis on activities to promote enterprise. There is a necessity of a strong banking and finance sector in order to direct the accretion value created due to constitution of new investments, the development of the tourism and the increase of the exportation as a result of agriculture and industry integration, to the activities which will increase the investments and employment. Public institutions and non-governmental organizations such as chambers of agriculture, chambers of trade and industry, and associations of small businessmen, should develop a common policy for state banks, other banks and special finance institutions to take a greater interest in the region and to support entrepreneurs in the region. The financial possibilities such as leasing and factoring should be promoted more widely and entrepreneurs should be to encouraged act together and have greater access to financing. Institutional structures should be established to overcome bottlenecks in the start-up of SMEs and in their access to financing, and the bureaucratic formalities towards support mechanisms should be simplified.

The necessary initiatives should be taken for private banks and finance institutions to extend more agricultural credit, which is currently provided for the most part by state-owned banks and agricultural credit cooperatives. The necessary support should be given for SMEs operating at low efficiency to merge and create strong institutional structures and to open their companies to the public and strengthen their capital structure. The efforts have to be made for the transfer of capital from abroad to the region and for the establishment of partnerships, and public institutions and the DA need to support entrepreneurs in this matter. The necessity of holding the regional capital within the region is stated in the SWOT analyses and it is emphasized that more resources have to be created for investments (Table 5.4.3.1).

Priority 8: Develop and Diversify Construction and Transportation Services

An important part of the accretion value and employment created in TR83 Region is created in the construction sector (Dolsar, 2004-1). However, the sector is not sufficiently organized and technologically developed. The strategic importance of the construction sector is due to the fact that the ongoing demographic movements (migration) in the region and the envisaged transformation of spatial structure will require a physical restructuring activity on a large scale. The development of the construction sector will also support the manufacturing industry sector. Especially one of the first stages in the trajectory of traditional development and industrialization of the regional companies is producing the construction materials which utilize the local raw material. This development pattern is expected to sustain with technological development by changing its characteristics.

In order to create an effective spatial organization, the regional infrastructure has to be developed according to the perception of creating an effective regional spatial organization. The regional transport network: highway, harbour, energy (including natural gas), communication, potable water supply infrastructure. Preparing cities for the future in a safe and planned manner, construction of small infrastructures for new areas that will be opened up for land development and for the existing cities: in-city road network, mass transport systems, energy and communications, drinking water supply, new housing and restoration of historical assets, renovation of city centers which will become more attractive, needs a great scale construction services as well.

In order to transform the rural settlement into a rational structure, the rural road network/provincial roads, energy and communications infrastructure, new housing in central settlements and new storage, packaging, initial processing or cooling structures have to be constructed. Furthermore, in order to develop the human resources and the social structure, the education at all levels have to be developed according to the necessities of production and service needs of the region. Construction of all levels and kinds of schools, including preschool education, university and vocational high schools, research buildings, hospitals and other public administration buildings are in question.

Completing of the irrigation structure and their infrastructures, completion of the commenced and predicted to be completed preferentially, construction of schools, health care and other public service units in CRSs in order to provide services to the poor and disadvantaged groups in the rural areas will make a great demand on construction activities. In order to increase the competitiveness of establishments and utilization of agglomeration economies and externalities, the construction of OIZ, SIE, fair areas, congress centres, hotels, etc. will be in question.

In order to protect and improve the ecological balance and the environment, the physical construction comprises the necessary activities of construction of sewerage systems, waste water treatment systems and solid waste storage systems.

The YBDP strategy aims to keep the current outward migration from the rural areas within the region and thus proposes the measures to make the cities of the region more attractive. Providing the housing and employment for the newcomers in the cities is among the strongest elements of attraction. However, considering the low level of education and skill of the newcomers, the construction sector will be an important source for their employment. Priority 3.8 envisages meeting the mass labour demand that will result from increased construction activity initially through population with a low skill capacity but implementing actions in the second and third phases both for the firms to become institutional and for the labour force to be trained and acquire skills. Thus, in a combination of three, the region's local capital, labour, raw materials, and construction materials production will be evaluated for regional development. The strengthening of the construction sector is an expectation appropriate according to SWOT analyses.

5.4.4 Strategic Objective IV: Protect Ecological Balances, Environment and Improve the Situation

In the region, it is necessary to protect the ecological balance, to dispose of solid wastes, to prevent soil erosion, and to reduce air pollution and noise pollution, which disturbs human life in the cities. The soil erosion in the region has reached a serious dimension, If measures are not taken, the decrease that will occur in the course of time in the active volumes of the dams built on rivers will have a negative impact on power generation and the quantity of water provided to irrigation areas. The waste waters of the cities are discharged into the rivers Kızılırmak and Yeşilırmak and their tributaries without being treated. The solid and industrial wastes are stored irregularly, creating water, air and soil pollution and affecting the groundwater sources which are used by local administrations to supply potable water. The pollution of the sources in question has to be prevented. A series of measures need to be taken and implemented for the integrated use of forests, plateaus, hunting and wild life, wetlands, bird sanctuaries and endemic plants among the natural resources of the region (Table 5.4.4.1).

5.4.4.1 Priorities

Priority 1: Protect and Control Air, Soil, Water and Forest Eco-Systems, Reduce the Impacts of Urban-Agricultural Polluters

The necessary legal arrangements will be made concerning the allocation, utilization and development of water resources and their protection against being polluted, and their management rendered more effective (DPT, MTP 2006-2008). In order to raise the quality of life in the region, it is necessary to protect air, soil and water resources, to reduce urban polluters, and to discharge waste waters, currently discharged into rivers without being treated, into the receiving medium after being treated. Together with the other countries around the Black Sea, Turkey has undertaken the measures to

Table 5.4.4.1 Strategic Objective IV SWOT

Strengths	Weaknesses
● The existence of wetland areas in the region to be protected which are close to the international standards	● The existence of erosion risk
● The region, having a great richness in terms of flora and fauna	● Serious environmental problems due to deforestation, urban wastes, and air, water and soil pollution resulting from industry and animal husbandry in the cities and rural areas,
● The region, having a rooted cultural history,	● The utilization of agricultural areas for non-agricultural purposes
● The existence of strong protection consciousness of the historical assets in some areas	● The failure to attach due importance to the drainage
	● The incorrect and unnecessary use of fertilizers and agricultural pesticides
	● The farmer's lack of interest in problems of pollution, soil analysis and agricultural extension and training
	● The existence of a great depredation against the cultural assets
Opportunities	**Threats**
● The strong potential for special-purpose tourism such as plateau and mountain tourism	● The environmental ecology being affected by pollution (especially through rivers and the sea), radiation and climate changes originating outside the region
	● The environmental and cultural degradations arising due to excessive migration in locations where sustainable agricultural and industrial practices exist

reduce impacts that cause marine pollution and to protect the ecological balances. The pollution in the Black Sea threatens fish life and excessive fishing results in the depletion of fish stocks. In order to protect the soil and water resources of the region, it is necessary to prevent excessive use of fertilizers and agricultural pesticides. It is also necessary to increase the number of air pollution measurement stations in the cities where concentrations will occur in the region, to monitor and evaluate soil pollution in a systematic fashion rather than simply at the academic level as is currently the case, and to implement measures that will reduce pollution. The necessary measures must be taken to collect in a centre, and evaluate, the water pollution measurements which have been conducted for many years now and to make them available for use by all organizations. In the SWOT analyses held in the region, the pollution is emphasized and the stated that the necessary measures have to be taken in order to prevent the pollution caused by utilization of inaccurate fertilisers and pesticides and domestic and industrial wastes (Table 5.4.4.1).

Although one third of the region's land is covered with forests, these forests cannot be sufficiently used within the principle of sustainability. In order to raise the incomes of the population living in forests or adjacent areas, it is necessary to make greater use of forest products, to integrate forest management and the tourism sector, to develop plateaus, wetlands and wild life, to establish hunting grounds, and to reduce soil erosion. In order to raise the incomes of the farmers engaged in agricultural activity in small areas exposed to soil erosion, other income generating activities have to be increased in addition to the development fruit-growing and organic farming on dry land. The efforts have to be made to implement a small number of selected projects intensively with the aim of raising the quality of life of the forest villagers, whose population is rapidly falling and who try to carry out farming on small, sloping parcels of land which have generally been cleared from the forest and which are not suitable for agriculture.

Priority 2: Protect and Ensure Sustainability of Biodiversity

The activities will be accelerated towards protecting and developing our country's biodiversity and genetic resources and adding economic value to them (DPT, 2005-3). In order to protect the genetic diversity of the region, to prevent degradations in wetland ecosystems and to make sustainable use of these resources, people need to be informed and educated about the value of the natural assets in question. It is necessary to make inventories of these resources, to publicize the endemic species of the region, to develop eco-tourism, and to ensure that the local people actively participate in these efforts. Endemic plants which occur more intensively in the area of Amasya in the region should be put into good use, and trading in species which are haphazardly gathered from the wild in the area of Tokat should be brought under control. Since the region is situated on bird migration routes, the bird sanctuaries in delta plains and in dam reservoirs in the inland parts should be used in accordance with the principle of sustainability. The protection measures should be implemented fully in the wetlands placed under protection in accordance with the RAMSAR Convention and in the areas placed under protection in accordance with Law numbered 2873 on National Parks. The efforts are needed to increase the 41,584 hectares of land (3 percent of the forest land) currently placed under protection in the region. The necessary training should be given for the local people living in or near the sensitive zones in the region to have protection awareness and to benefit economically from the resources in question. The necessity of protecting the rich environmental biodiversity and developing rural tourism within the sustainability are stated in SWOT analysis meetings (Table 5.4.4.1).

5.4.5 Strategic Objective V: Strengthen Institutional Structure

The transformation of the spatial, social and economic structure in a sustainable manner, which is the main strategic objective of the YBDP, can only be achieved through suitable organizations and institutions. The strategic objective of strengthening the institutional structure strongly supports the aim for a rapid urbanization to develop and become effective to achieve concentrations and externalities in rural and urban areas, the most strategic change envisaged for the region. The effect of regional urbanization in clearing the way for development will be realized and maintained through institutional mechanisms complementing and in harmony with each other.

The urbanization will provide an environment which eases and accelerates the organization and the institutional structures which are working effectively. The institutional structures which are planned to be strengthened are central and local public administrations, private sector and nongovernmental organizations. These institutions are representing different objectives, traditions, points of view, aims and targets and the three most important means of the institutionalization. Strengthening the institutional structure, comprises the capacity development and also the symbiotic relations between the institutional structures, partnerships and collaborations.

The driving force of the strengthening will emerge with the acceptance of the management approach in the institutions. The participation constitutes the main principles of the management with flexibility, transparency and being able to give an accounting. The collaboration of similar categorized establishments as well as developing the collaboration and relations, working collaborately on the organizational structures and institutions of different categories, generating and applying the project and renovation if needed, will show that management apprehension is utilized comprehensively and effectively.

The development predicted is same as in the direction of the plan documents. One of the development axes determined in the PNDP according to medium-term aims is the “regional development” and one of the priority areas of this strategy has been identified as “strengthening the institutional structure with new models of local governance that will enhance local participation, develop areas of

Table 5.4.5.1 Strategic Objective V SWOT

Strengths	Weaknesses
● The YBDP Development Union has already been established	● The lack of coordination between the existing institutions
● The existence of participatory organizations such as “LA21” – “City Council” in certain settlements	● The ineffectiveness of the unions and the cooperatives
● The relations of municipalities with citizens outside the region	● The lack of sufficient collective action and social cooperation
	● The local unions, partnerships and non-governmental organizations not being sufficiently developed
	● The NGOs, being small in number and insufficient

Opportunities	Threats
● Turkey being member of Black Sea Economic Cooperation	● The Regional Development Agencies not being established
● The possibility of establishing institutional relations with the EU and its funds	
● The organizations of citizens established outside the region by people who have migrated from the region becoming stronger and supporting investments/ social projects in the region	

joint venture and regulate the collective intervention of local actors in local economic development" (DPT, 2003-5: 124 and 127).

One of the MTP development axes is "Good Public Governance" (DPT, 2005-3: 26).

5.4.5.1 Priorities

Priority 1: Strengthen Local Government and the Development Agency

The local government administrations consist of 195 municipalities (1 metropolitan, 1 first stage municipalities, 44 district and 146 township municipalities) and 4 special provincial administrations. In addition, there are 2 644 village authorities in the region. Although the relevant law has been adopted, the Development Agency (DA) has not yet been established in the region.

The municipalities are the most extensive, organized, strongest and established institutional structures with local knowledge and capable of achieving local development in the region. The preparation of municipal strategic plans is a duty specified in Law numbered 5272 (Art. 18.a, 34.a, 41). Since the development of cities is identified in the YBDP strategy as the main premise of regional development, the strategic plans to be made by the metropolitan municipalities in particular will have the function of stimulating and attracting Local Economic Development (LED). For this reason, the municipalities with a population greater than 20 000 are the main actors of regional development. However, the regional municipalities have low incomes and expenditures, an excess of administrative personnel and a considerable deficit of technical personnel (Dolsar, 2004-1). For this reason, the local administrations, including the municipalities in particular, and the DA to be established in the future will need to be strengthened.

The PNDP stresses the collective action of central and local government units, the increasing importance of local dynamics in the process of economic growth and regional development, and the importance of conciliatory, rational cooperation. To achieve this development, the provision of training possibilities and the creation of administrative capacity are considered as priority areas (DPT, 2003-5: 127).

The realization of institutionalization in order to support the urbanization in TR83 Region will be possible by strengthening the municipalities, developing the special provincial administrations with suitable unions to be established by them, and ensuring that the DA strongly performs its function when the decree concerning its establishment is issued. In the SWOT analyses implemented in the region, it is stated that the local administrations have to take active roles in the development of the region and it is emphasized that these institutions have to be strengthened (Table 5.4.5.1).

Priority 2: Strengthen Civil Society and Private Sector

The most critical element in planning the future of the region and implementing the actions is the organization of the social segments living in the rural and urban areas of the region. The main actors of development are the local community, the private sector, the municipalities of the big cities, the universities and other research and development institutions, the non-governmental organizations with a semi-public status (bar associations, chambers, the TOBB, the TESK, chambers of agriculture, etc.) and non-profit non-governmental organizations (including trade unions), the associations established in rural areas for economic purposes, the local press organizations, and the central public institutions and organizations. In addition, the Kelkit Basin Development Union, of which the governorships of Tokat, Erzincan, Giresun, Gümüşhane and Sivas, the Gaziosmanpaşa University of Tokat and the Cumhuriyet University of Sivas are members, which was established with the participation of the ÇEKÜL Foundation and

certain district municipalities, and which gained the status of union in 2004, has become functional as a participatory organization in the region. Two other institutional models towards the extension of the governance system are the formations that have come into being with the Local Agenda 21 organizations in the city of Samsun and the district of İskilip. With a governance approach, important example of taking the initiation locally with regard to the regional development problems and implementing the common activities with combining the local opportunities and occasions in order to solve the problems by activating the local actors is the model constituted by SABEKAK and SABEK. This model is one of the advantages of TR83 Region in terms of the municipalities and municipality union building up local development commencing beyond its boundaries. This model is an example which has to be duplicated for providing a productive and effective partnership approach amongst the municipality, private sector, non-governmental institutions, university and the public administrations.

In the definition of the priority area of "strengthening the governance mechanism and developing the institutional capacity," the PNDP states that the aim is to develop local organizations such as service unions, development foundations, city councils, and successful examples of cooperatives, municipal unions, chambers and foundations (DPT, 2003-5: 127).

This priority will be implemented by strengthening non-governmental organizations working for economic, social or ecological purposes, advisory organizations which will strengthen the private sector in structural terms, the local media and communication environment, private sector professional bodies, associations of businessmen, non-governmental organizations, agricultural unions, cooperatives and unions of cooperatives, trade unions, professional associations, and professional organizations working for public benefit. In the SWOT analyses implemented in the region, it is emphasized that the non-governmental institutions have to take active roles in the development of the region on the subjects related the region and these institutions in question have to be strengthened (5.4.5.1).

Priority 3: Develop the Central Public Administration Institutions in the Region

The central administration in the region is represented in the region by 4 province governorships, 48 district governorships, and regional directorates of DSİ, KGM and Provincial Bank. The Yeşilırmak Basin Development Union which is created by the special provincial administrations of Amasya, Çorum, Samsun and Tokat, is among the participatory institutions in the region. The ability to provide regional development with an institutional character is closely related to the internal structuring of organization in the public sector and to the development and continuity of dialogue and coordination between the different public organizations. The problem with internal structuring is due to the fact that high-quality services cannot be provided with insufficient resources and a shortage of expert technical personnel and equipment. The validation of a governance approach in the production of public services depends on a process of effective training.

The PNDP predicts that more local participation has to be provided in the application of the regional development strategies. "...in the application process, in order to provide the effectivity the economic means of the non-governmental organizations have to be activated besides the public and private sectors in accordance with the plan strategy" is determined as a preferential area. Also in the PNDP, the arrangements implemented regarding the devolution of authority to the local administrations with SPA and Municipality Law, are emphasized (DPT, 2003-5: 127).

"Good Governance in the Public Sector" is one of the main development axes in the MTP. The

plan determines the public institutions '"...have the contemporary approach, structure and functioning towards flexibility, transparency, participation, accountability and predictability." (DPT, 2005-3: 26-27).

The priority of developing the central government public institutions in TR83 will be implemented by developing in the provincial organization and regional directorates of the central government the approach of internal structuring with a governance concept and establishing cooperation and partnerships with different institutions. In the SWOT analyses implemented in the region, it is stated that providing a series of training programmes including the foreign language education to the personnel of the public institutions working in the regional development and they have to take active role in the development of the region and these institutions have to be strengthened (Table 5.4.5.1).

6 CONCLUSION

TR83 Region is slightly below Turkey's averages in many indicators in terms of development. But the development level is not in the characteristic of showing ruptures from the country averages. There is a possibility for the region to reach the country averages and pass over these averages in terms of some indicators. The more economic ones of these areas are the areas which the region has comparative superiorities. In other words, these economic activity areas are the ones having the opportunity to develop in terms of raw material resources, factor assets, human capital, technological level and market, high accretion valued and having back and forth connections. The future of the region will be implemented by organizing these activities which the highest level of benefit can be gained by the location and providing the cohesion between the social and economic developments, realizing the appropriate institutional structures and operation mechanisms for this and taking into consideration the characteristics of protecting and enhancing the environmental values of the spatial, economic and social developments. In summary, the region has the chance of development. When these advantages transformed into reality systematically with the creativity of the regional community, until the year 2023, the gap between the other developed regions of the country could be closed and may be surpassed in terms of many indicators. Yet, it has to be determined how this can be implemented.

The first step to determine the definition is implementing the comparisons on the alternative development scenarios by integrating the analysis of the national decisions and the expectations of the regional community and providing the acceptance of one of these scenarios. The scenarios developed, starting from A_0 to A_2, are reflecting each GDP growth rate which is greater than the previous one, increase rate and higher industry and services activity in the labour productivity, less agricultural employment, more income per capita and the rural-urban, regional and country average in terms of income per capita. The examinations implemented on the scenarios in terms of development opportunities and chances of the region, and the feasibility reveal the definition of the adopted A_2 scenario.

The selected A_2 scenario, for the region which gives net migration to the extraterritorial, envisages the enormities which protect the factor assets and providing to keep the human resources in the region at the end of the period. Approaching the income per capita of the region to Turkey averages, decreasing the diversity between the rural and urban, increasing the opportunity of total employment (mainly with developments in the industry and services sectors) when decreasing the agricultural employment, are among the other features of A_2. In order to provide these increases, a great leap is predicted to attract investments to the region in the transportation infrastructure, local infrastructure, in the assurance of the raw material to the industry and in the agriculture and the limits of the feasibility are not exceeded. A_2 which comprises improvements in all indicators, is proposing to attract the migration which will continue from the rural rapidly, to the cities of the region and providing employment by developing economic structure of the region with the services and in favour of industry sector and Samsun, to stand out with being a metropolitan city. In summary, at the end of the studies related with the scenarios, the adoption of the A_2 scenario at the risk of forcing the local resources of the region at top level, is proposed as the best selection.

According to the selected A_2 scenario, the development of TR83 is dependent on the main strategic objective determined as transformation and development of the spatial, social and economical structure in order to realize the regional vision. One of the strategic objectives is to constitute a new regional settlement structure by developing towards a polycentric structure with the utilization of agglomeration economies and externalities. The development of the region will be implemented with the development the other strategic

objectives in accordance with the spatial strategy. The spatial strategy is arranged as the prevision of changing of the settlement pattern in the rural areas because of the increase and acceleration of the urbanization, the trend of the balance of the rural-urban distribution developing in the direction of urban and the decrease in the rural population. By virtue of the network relations which will be constituted in the polycentric spatial structure predicting the development of the urbanization by decreasing the diversity between the rural and urban, the rural-urban settlements are integrating and the production pattern are becoming practicable in providing more productivity.

The main selections of the A_2 scenario are compatible with "Regional Development and Reducing the Regional Development Disparities" which is one of the development axes of Middle Term Plan. In the plan, in order to keep the migration interregional tendencies within the region, providing a balanced distribution of the population in the location and enhancing the urbanization in a healthy structure; determining the cities having the feature of regional center and by analyzing migration trends, developing strategies and politics to lead the migration to these centers; in order to increase the welfare in the rural areas, in the presentation of the public investments and the services, by giving the priority to the central settlements which can provide services to settlements in their vicinity by their locations and have the potential of development, it is predicted that the alternative models which can improve the infrastructures of these settlements and provide cost effectivity and access in obtaining the public services to the desultory allocation units.

The development strategy of the region is preparing an effective regional and small-scaled infrastructure base which can provide the occurrence of rationalist and low cost developments by transforming the spatial structure firstly. According to the spatial strategy, it has been transforming by condensing in some areas and discharging in some areas in the rural and urban in a form of constituting an urbanized regional structure fundamentally. The preparation in this spatial structure will complete the strategies of activating the economical and social structure (realized as tending into different specializations in every urban center).

A suitable spatial organisation will be provided in order to increase the productivity in the agriculture, industry and the services by condensing the economic activities in the cities and the rural areas which the first and second agricultural lands are developed by irrigation. In this spatial organisation Samsun, as a metropolitan region/ network-gateway, (approximately 1 000 000 people will live in the year 2023) will be an effective production and service center which can provide the development of the region within a polycentric morphological and relational network in the seashore and the whole region.

Çorum is the most industrialized city of the region. The industrial structure is diversified by development. Yet, it will be a city which determines its specialization at the end of the period and increases its relations with global structures. Tokat, based on the strength and condensed agricultural background, will develop and diversify its agricultural industry by specialization according to the advantages which its polycentric structure provides. Amasya, as a city that prevents and utilizes its historical architectural heritage and identity most effectively, will be a center specialized in the subjects of education, culture and tourism and the agricultural developments in its background and the limited industry will support its development.

Merzifon will be the fastest developing city of the region due to the advantages it has by some means and its population will be multiplied three times. It will develop its agricultural industry by utilizing the agricultural advantages provide by its background with the cities which has network relations within. With its location between two urban

centers developed in industry and services like Samsun and Çorum, it will lead a flexible path by developing the invention, innovation and research capacity in the direction of developing the industry and the services.

The other cities (settlements having a population of more than 20 000) will develop specialization areas according to the spatial, economic and social advantages which provided by its settlement position and its network relations within and will provide the opportunities of life standards above the general standards to all its fellow citizens, including the newcomers, qualitatively.

The other strategic objectives which will be operated simultaneously in order to support the main strategy are the strategic objectives proposing the evolution of the region to the knowledge community, the increase of the learning capacity, making innovations, developing productions based on inventions, expanding the foreign trade, protecting the environmental diversity, ecological balance and cultural heritage, providing a flexible and democratic mechanism appropriate to develop the institutional and financial structures, especially the municipalities, and consideration of the sustainability of the proposals.

TR83 Region, with the application of the selected A_2 scenario and the strategies planned to implement this scenario, will be a region which is close to the developed regions of Turkey and can compete more with the other regions of EU in the year 2023.

ANNEXES

ANNEX 1: TABLES RELATED WITH SCENARIOS

Annex 1 Table 1 GSD Growth Rates

(percent)

Sector	Scenarios	2004-2010	2011-2015	2016-2023
Agriculture	A_0	2,6	2,9	4,5
	A_1	3,1	3,5	5,7
	A_2	3,9	4,3	5,2
	A_3	4,6	5,5	3,9
Industry	A_0	5,1	5,0	5,3
	A_1	5,6	5,4	7,3
	A_2	6,6	6,8	8,7
	A_3	6,3	8,0	9,8
Services	A_0	4,2	3,9	4,6
	A_1	4,7	5,2	6,6
	A_2	5,6	6,4	7,9
	A_3	6,3	7,6	8,5
GDP	A_0	4,1	3,6	4,7
	A_1	4,6	4,9	6,6
	A_2	5,5	6,1	7,7
	A_3	6,2	7,3	8,1

Annex 1 Table 2 Income Per Capita in the Region According to Turkey Average (YTL)

(YTL at 2003 Prices)

Scenarios	Years	Region	Turkey	Region/ Turkey (percent)
A_0	2003	3 642,40	5 081,81	71,68
	2010	4 871,80	6 982,97	69,77
	2015	5 790,00	8 616,85	67,19
	2023	7 882,40	12 970,19	60,77
A_1	2003	3 617,10	5 081,81	71,18
	2010	4 874,10	6 982,97	69,80
	2015	5 731,60	8 616,85	66,52
	2023	8 806,20	12 970,19	67,90
A_2	2003	3 603,20	5 081,81	70,90
	2010	5 091,30	6 982,97	72,91
	2015	6 165,60	8 616,85	71,55
	2023	10 428,90	12 970,19	80,41
A_3	2003	3 584,70	5 081,81	70,54
	2010	5 225,10	6 982,97	74,83
	2015	6 480,60	8 616,85	75,21
	2023	10 575,60	12 970,19	81,54

Annex 1 Table 3 Income Rates Per Capita: Rural/Urban

(percent)

Scenarios	2003	2010	2015	2023
A_0	29,54	30,49	33,24	42,97
A_1	30,38	33,84	40,25	51,29
A_2	31,06	36,08	44,89	49,36
A_3	31,81	39,37	51,70	53,77

Annex 1 Table 4 Growth Rate of Urban Population

	Population (thousand)				Growth rate (percent)			
	2003	2010	2015	2023	2003-2010	2011-2015	2016-2023	2003-2023
A_0	1 591,1	1 704,1	1 813,2	2 155,7	0,98	1,24	2,16	1,52
A_1	1 623,3	1 843,1	2 206,5	2 696,3	1,81	3,60	2,51	2,54
A_2	1 646,1	1 936,6	2 423,4	2 898,2	2,32	4,48	2,56	2,83
A_3	1 672,6	2 041,3	2 681,3	3 503,8	2,85	5,46	3,34	3,70

ANNEX 2: SWOT ANALYSIS

Annex 2 Table 1 Regional SWOT by Sectors and Subsectors

Amasya	Agriculture	Industry	Services
Strengths	● The existence of irrigated areas ● The existence of the products having marketing chances ● The existence of animal husbandry potential ● Production according to EUREPGAP standards	● The considerable utilization of the raw materials in the industry and having the potential ● The industrial development of Merzifon	● The good condition of historical pattern in terms of tourism ● The drifting of the urbanization to outside of the city center ● The existence of historical ruins and excavation areas ● Skilled trade still preserving its presence ● The richness of endemic plants in the city regarding the environment
Weaknesses	● Decrement of the lands ● Insufficient utilization of modern production techniques ● Insufficiency in marketing opportunities and infrastructures ● Poor water quality of the rivers	● The low standards in the production techniques ● The absence of enough qualified personnel	● The insufficiency of infrastructure and personnel in the health services ● The insufficiency of qualified personnel and infrastructure in tourism
Opportunities	● The organic agriculture is developing and the existence of suitable area for organic agriculture	● The region being in the transportation axes and closeness to the markets ● The city, being in the scope of incentive	● The construction of a regional traffic hospital in the city ● The opening of Merzifon Military Airfield to civilian transportation ● Providing the needed knowledge and qualified manpower by establishing universities and faculties in the city
Threats	● The high increase in the standards of foreign markets ● Could not allocate resources to the irrigation projects	● The high increase in the standards of foreign markets	● Could not take measures to protect the endemic species

Çorum	Agriculture	Industry	Services
Strengths	● High level of dry farming areas and the crop production regarding this ● The existence of products inherent in the region (Osmancık 97, Kargı cheese encased in a skin etc.), ● Being a trademark and creating markets ● The non-existence of pollution in dry farming areas and being suitable for organic agriculture	● The existence of lignite resources ● The widespread of flour and bakery products ● Acceleration in R&D studies and their reflection to the investments	● The existence of The Hittite Culture in Çorum which can be evaluated in tourism
Weaknesses	● Could not market agricultural products to foreign markets ● The loss and decrement of agricultural areas ● Could not implement the product planning ● The high production costs ● The insufficiency of production techniques and incomes ● The irrigation projects have not been completed ● High rate of erosion ● The waste generated as a result of animal production could not be utilized	● The SMEs could not find solutions to their production and marketing problems jointly	● The insufficiency of accommodation facilities ● The insufficiency of well educated qualified manpower (guides included) ● The insufficiency of infrastructure and qualified manpower in the education and health services ● The low capacity of transportation quality ● The uncontrolled solid wastes and wastewaters creating negative environmental effects and problems
Opportunities	● The completion of the irrigation projects without delays ● Public support and promoting the animal husbandry and crude fodder production	● The utilization of natural gas in industrial facilities	● Preventing air pollution by expanding the utilization of natural gas ● Obtaining energy by constructing small HESs on the Kızılırmak-River ● Construction of a specialized hospital ● Providing the qualified personnel need with VASs
Threats	● The insufficiencies in agricultural supports ● Could not implement the activities to prevent the erosion	● Could not renovate the technology of flour and bakery industry and the decrease in competitive power	

Annex 2: SWOT Analysis

Samsun	Agriculture	Industry	Services
Strengths	● The city having two vast and productive plains ● The climate and geographical conditions are suitable for production during most of the year ● The existence of product range according to demands of Northern countries ● The suitable potential for aqua culture	● The production in European standards in some industries	● The existence of sea, unspoiled natural beauties (plateau, lake etc.) ● The existence of souvenir and traditional skill trade products ● The existence of infrastructure related with harbour and airport ● The important products can be transported at short notice in terms of airport and cargo freight ● The thermal resources provide an opportunity for creating a capacity as a tourism potential ● The existence of studies of the institution (university) in Samsun on ecosystem and its preventation
Weaknesses	● The non-existence in development of bazaars and stock market ● The animal husbandry establishments are disordered and unorganized ● The insufficiency in the incomes of forest villagers and their other opportunities ● The demolition of forest ecology by the settlements	● Samsun is not one of the cities obtaining incentives ● The natural gas could not be used in industry	● The urbanization is not developed in an organized and planned manner ● The insufficiency of infrastructure and personnel in the tourism ● The insufficiency in the infrastructure and management of the existing harbour ● The inner-city traffic problems have not been solved ● The insufficiency of infrastructure and qualified manpower in the education and health services
Opportunities	● Suitable opportunities in producing new agricultural products (cut flowers, artichoke) ● The production and diversity can be increased by engaging the irrigation areas	● The mineral reserves can be researched and turned into investments by MTA	● Increasing the importance of RBPS and BPS ● Construction of a specialized hospital ● Construction of solid waste and wastewater treatment system with the neighbouring provinces
Threats	● The increase in the environmental pollution and desertification ● The sustainable conscious agriculture can not be implemented	● The continued capital flight from the city	● The trade is directed to other seaports because of the insufficiency of harbour management

Tokat	Agriculture	Industry	Services
Strengths	• Has the biggest irrigation area • The existence of physical potential in the animal husbandry • The high level of forest areas and their qualities • Utilization of new agricultural techniques • Exportation of some agricultural products	• The existence suitable potential in order to develop the agricultural industries • Tokat being in the scope of incentives • Tokat has importance in terms of mining reserve	• The historical settlements are high in number • The nature, being unspoiled • The existence of souvenir and traditional skill trade products
Weaknesses	• The excessive fragmentation of agricultural areas • The production costs are high • Lack of sufficient opportunities for prevention of the products • The lack of necessary issue activities for production of agricultural products • The non-existence of forest management • More utilization of fertilizers because of not implementing the necessary soil analyses and the increase in pollution • The sufficient market opportunities cannot be provided for agricultural products • The production and marketing problems that animal breeders face as a result of lack of organization • The demolition in forestry areas	• The lack of necessary qualified manpower for industry • The productions of the industries are being insensitive to the environment	• The transportation infrastructure has not developed in parallel to the topography • The insufficiency of infrastructure and qualified manpower in the education and health services • The pollution raised from the animal husbandry establishments and urban wastes could not be prevented
Opportunities	• Evaluation of thermal resources in agricultural production (greenhousing) • Developing the contracted agriculture and increasing the quality of agricultural production • Creating opportunities like livestock exchange, stock markets and bazaars		• The training activities can be provided by NGOs and education institutions jointly and according to the recent conditions • The existence of Tokat airport which can be reopened • The historical pattern of the Tokat city center can be restored and utilized in tourism • The ecotourism potential which can be evaluated in terms of tourism
Threats	• The existence of water pollution		• The risk of earthquake which threatens most of the settlements in Tokat

BIBLIOGRAPHY

Bibliography

Amasya Tarım İl Müdürlüğü (2004), Hayvan Sayısına Ait 2003 Yılı Verileri (unpublished).

Çorum Tarım İl Müdürlüğü (2004), Hayvan Sayısına Ait 2003 Yılı Verileri (unpublished).

DİE (1983-1), 1980 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Amasya, DİE, Ankara[3].

DİE (1983-2), 1980 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Çorum, DİE, Ankara.

DİE (1983-3), 1980 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Samsun, DİE, Ankara.

DİE (1983-4), 1980 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Tokat, DİE, Ankara.

DİE (1984), 1980 Genel Tarım Sayımı, DİE, Ankara.

DİE (1988-1), 1985 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Amasya, DİE, Ankara.

DİE (1988-2), 1985 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Çorum, DİE, Ankara.

DİE (1988-3), 1985 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Tokat, DİE, Ankara.

DİE (1988-4),1985 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Samsun, DİE, Ankara.

DİE (1993-1), 1990 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Amasya, DİE, Ankara.

DİE (1993-2), 1990 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Çorum, DİE, Ankara.

DİE (1993-3), 1990 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Samsun, DİE, Ankara.

DİE (1993-4), 1990 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Tokat, DİE, Ankara.

DİE (1993-5), 1990 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Türkiye, DİE, Ankara.

DİE (1993-6), 1991 Genel Tarım Sayımı, DİE, Ankara

DİE (1994-1), 1991 Genel Tarım Sayımı, DİE, Ankara .

DİE (1995-1), Türkiye Nüfusu, 1923-1994 Demografi Yapısı ve Gelişimi: 21. Yüzyıl Ortasına Kadar Projeksiyonlar, Ankara.

DİE (1995-2), Yıllık İmalat Sanayi İstatistikleri, 1993, DİE, Ankara.

DİE (1997-1), 1990 Genel Nüfus Sayımı, Daimi İkametgaha Göre İç Göçün Sosyal ve Ekonomik Nitelikleri, DİE, Ankara.

DİE (1997-2), 1994 Hanehalkı Gelir Dağılımı Anketi Sonuçları: Seçilmiş 19 İl Merkezlerine Göre yüzde 20, yüzde 10, yüzde 5 ve yüzde 1'lik Gelir Dağılımı, DİE, Ankara.

DİE (1997-3), İllere Göre Gayri Safi Yurt İçi Hasıla 1987-1994, DİE, Ankara.

DİE (1999-1), İllere Göre Gayri Safi Yurtiçi Hasıla 1995-1996, DİE, Ankara.

DİE (1999-2), İllere Göre Gayri Safi Yurtiçi Hasıla 1997, DİE, Ankara.

DİE (1999-3), 1998 Tarımsal Yapı Üretim, DİE, Ankara.

DİE (2002-1), Dış Ticaret İstatistikleri ve Endeksleri 2001, DİE, Ankara.

DİE (2002-2), İllere Göre Gayri Safi Yurtiçi Hasıla 2000, DİE, Ankara.

DİE (2002-3), 2000 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Amasya, DİE, Ankara.

DİE (2002-4), 2000 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Çorum, DİE, Ankara.

DİE (2002-5), 2000 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Samsun, DİE, Ankara.

DİE (2002-6), 2000 Genel Nüfus Sayımı, Nüfusun Sosyal ve Ekonomik Nitelikleri, Tokat, DİE, Ankara.

DİE (2002-7), Kültür İstatistikleri 1999-2002, DİE Yayınları, Ankara.

DİE (2002-8), Genel Sanayi ve İşyerleri Sayımı 2000, DİE, Ankara.

DİE (2002-9), Yıllık İmalat Sanayi İstatistikleri 2000, DİE, Ankara.

DİE (2003-1), 2000 Genel Nüfus Sayımı: Nüfusun Sosyal ve Ekonomik Nitelikleri, Türkiye, DİE, Ankara.

DİE (2003-2), Dönemlere Göre Bina İnşaatı Maliyet İndeksleri 1991-2002.

DİE (2003-3), Genel Tarım Sayımı Sonuçları 2001, DİE, Ankara.

DİE (2003-4), Turizm İstatistikleri 2000-2001, DİE, Ankara.

DİE (2003-5), 2002 Hanehalkı Gelir Dağılımı Anketi Geçici Sonuçları, Haber Bülteni, Ankara.

DİE (2003-6), 2002 Türkiye İstatistik Yıllığı, DİE, Ankara.

DİE (2003-7), Hanehalkı İşgücü Anketi, 2002, Türkiye, DİE, Ankara.

DİE (2003-8), Hanehalkı İşgücü Anketi, 2002, Samsun, DİE, Ankara.

DİE (2003-9), İstatistiki Bölgeler ve İller İtibariyle GSYİH 2001 Yılı Sonuçları, (unpublished), Ankara.

DİE (2003-10), Tarım İstatistikleri Özeti (1984-2003), DİE, Ankara.

DİE (2003-11), 2002 Tarımsal Yapı (Üretim, Fiyat,Değer) DİE, Ankara.

DİE (2004-1), 2002 Yoksulluk Çalışması Sonuçları, DİE, Ankara.

DİE (2004-2), Gelir Dağılımı Sonuçları 2003, DİE Haber Bülteni, 06.10.2004, DİE web site,

DİE (2004-3), Göstergeler, Yerlerine Göre Evlenmeler, DİE web site (www.die.gov.tr).

DİE (2004-4), İllere Göre Gayri Safi Yurtiçi Hasıla 2001 (unpublished).

DİE (2004-5), Sosyal Güvenlik ve Sosyal Yardımlaşma İstatistikleri, DİE web site (www.die.gov.tr).

DİE (2004-6), 2001 Belediye Kanalizasyon İstatistikleri, DİE, Ankara.

DİE (2004-7), 2001 Genel Tarım Sayımı Köy Genel Bilgileri, DİE, Ankara.

DİE (2004-8), 2002 Genel Sanayi ve İşyerleri Sayımı, Birinci Aşama Geçici Sonuçları (unpublished), Ankara.

DİE (2004-9), 1997 Köy Envanteri Türkiye, DİE, Ankara.

DİE (2004-10), Turizm İstatistikleri 1999-2004 (unpublished).

DİE (2004-11), 2001 Belediye Çevre İstatistikleri, DİE, Ankara.

DİE (2004-12), NACE 1.1 Kodlama Listesi, Ankara.

DİE (2004-13), Yabancı Ziyaretçiler Çıkış Anketleri, DİE, Ankara.

DİE (2004-14), 2001 Genel Tarım Sayımı, DİE, Ankara .

DİE (2004-15), DİE web site (www.die.gov.tr/konular/arastırmagelistirme).

DİE (2004-16), İl Göstergeleri, 1980-2003 DİE, Ankara.

DİE (2004-17), Yıllık İmalat Sanayi İstatistikleri, 2002, DİE, Ankara.

DİE (2004-18), Dış Ticaret İstatistikleri ve Endeksleri 2001, DİE, Ankara.

DİE (2004-19), Tarımsal Yapı, 2003 (unpublished).

DİE (2004-20), Göstergeler, Yerlerine Göre Boşanmalar, DİE web site (www.die.gov.tr).

DİE (2004-21), DİE internet site (http://www.die.gov.tr/TURKISH/SONIST/goc/14122004.html).

DİE (2004-22), Sayılarla Türkiye ve Avrupa Birliği, 1994-2000, DİE, Ankara.

Dolsar (2004-1), Yeşilırmak Havza Gelişim Projesi Mevcut Durum ve Analizi Raporu.

Dolsar (2004-2), Flora ve Fauna Saha Çalışması Bulguları (unpublished).

Dolsar (2004-3), Girdi-Çıktı Çalışmaları Bulguları (unpublished).

Dolsar (2004-4), Yeşilırmak Havza Gelişim Projesi Mali Yapı ve Bankacılık Saha Çalışması Bulguları (unpublished).

Dolsar (2004-5), Yeşilırmak Havza Gelişim Projesi Sanayi Anketleri Bulguları (unpublished).

Dolsar (2004-6), Yeşilırmak Havza Gelişim

Projesi CBS Veritabanı (unpublished).

Dolsar (2004-7), Yeşilırmak Havza Gelişim Projesi Nüfus Projeksiyon Çalışmaları (unpublished).

Dolsar (2004-8), Yeşilırmak Havza Gelişim Projesi Toplumsal Yapı Alan Çalışmaları Bulguları (unpublished).

Dolsar (2004-9), Yeşilırmak Havza Gelişim Projesi Hayvancılık Alan Çalışmaları Bulguları (unpublished).

Dolsar (2004-10), Yeşilırmak Havza Gelişim Projesi Ulaşım Çalışmaları Bulguları (unpublished).

Dolsar (2004-11), Yeşilırmak Havza Gelişim Projesi Kademelenme Saha Çalışması Bulguları.

DPT (2002-1), İller ve Bölgelere Göre Çeşitli Göstergeler, DPT, Ankara.

DPT (2002-2), Sayılarla Türkiye Ekonomisi Gelişmeler (1980-2001) Tahminler (2002-2005), DPT, Ankara.

DPT (2002-3), Plan Nüfus Projeksiyon Yöntemleri, DPT, Ankara.

DPT (2003-1), Bölgesel Gelişme Stratejisi, Hedef ve Operasyonel Programlar (Taslak) 2004- 2006, DPT, Ankara.

DPT (2003-2), İller ve Bölgeler İtibarıyla Gayri Safi Yurtiçi Hasıladaki Gelişmeler, DPT, Ankara.

DPT (2003-3), İstatistiki Bölge Birimlerine Göre Çeşitli Göstergeler, DPT, Ankara.

DPT (2003-4), Bilgi Ekonomisine Geçiş Sürecinde Türkiye Ekonomisinin Dünyadaki Konumu, DPT, Ankara.

DPT (2003-5), Ön Ulusal Kalkınma Planı (2004-2006), DPT, Ankara.

DPT (2004-1), Mali Piyasalarda Gelişmeler, DPT, Ankara.

DPT (2004-2), Temel Ekonomik Göstergeler, DPT, Ankara.

DPT (2004-3), Devlet Yardımlarını Değerlendirme Özel İhtisas Komisyonu Raporu, Sekizinci Beş Yıllık Kalkınma Planı (2001-2005), DPT, Ankara.

DPT (2004-4), Ekonomik ve Sosyal Göstergeler (1950-2003), DPT, Ankara.

DPT (2004-5), İlçelerin Sosyo–Ekonomik Gelişmişlik Sıralaması Araştırması (2004), Bölgesel Gelişme ve Yapısal Uyum Genel Müdürlüğü, DPT, Ankara.

DPT (2004-6), Tarım Sektörünün GSMH İçindeki Payı (unpublished).

DPT (2004-7), Temel Ekonomik Göstergeler, DPT, Ankara.

DPT (2004-8), DPT web site (www.dpt.gov.tr).

DPT (2004-9), DPT web site (www.dpt.gov.trb-gyu/seg/düzey 12003.htm).

DPT (2004-10), DPT web site (www.dpt.gov.tr/bgyu/bgr/dig/elektrik.htm).

DPT (2004-11), DPT web site (http://www.dpt.gov.tr/bgyu/trabbkp/trabbkp.htm).

DPT (2004-12), DPT web site (www.dpt.gov.tr/bgyu/).

DPT (2004-13), VIII. Beş Yıllık Kalkınma Planı, 2005 Yılı Programı, DPT, Ankara.

DPT (2005-1), AB Bölgesel Programları Dairesi Başkanlığı Tarafından Hazırlanan “Ekonomik ve Sosyal Uyum Amaçlı AB Yardımları” ve “TR82, TR83 ve TRA1 Düzey 2 Bölgeleri Kalkınma Programı” Hakkında Not (unpublished).

DPT (2005-2), TR82 (Çankırı, Kastamonu, Sinop), TR83 (Amasya, Çorum Samsun, Tokat) ve TRA1 (Bayburt, Erzincan, Erzurum) Düzey 2 Bölgeleri Bölgesel Kalkınma Programı Hakkında Not (unpublished).

DPT (2005-3), Orta Vadeli Program (2006-2008), DPT, Ankara.

DSİ (1980), Halk Sulamaları, DSİ, Ankara.

DSİ (1999), Haritalı İstatistik Bülteni, DSİ, Ankara

DSİ (2002), Türkiye’deki Baraj ve Hidroelektrik Santraller, DSİ, Ankara.

DSİ (2003-1), Sulama Sonuçları Değerlendirme Raporları, DSİ, Ankara.

DSİ (2003-2), Su Ürünleri Faaliyetleri, DSİ, Ankara.

DSİ (2004-1), DSİ 2004 Yılı Ajandası, DSİ, Ankara.

DSİ (2004-2), DSİ web site. (http://www.dsi.gov.tr).

DSİ (2004-3), V. Bölge Müdürlüğü 2004-2005 Program Bütçe Takdim Raporu, Ankara.

FAO (2004) FAOSTAT Verileri, Fao web site (http://apps.fao.org/faostat).

Friedman, J. ve diğerleri (2004), Strategic Spatial Planning and the Longer Range, Planning Theory & Practice, Cilt 5 no:1, ss:49-67.

Fresh Produce Journal, 5 Kasım 2004.

Germain, H. (1981), Flora Des Diyatomés, Diatomophycées, Paris.

Göle, Nilüfer (1998), " Küçülen Dünyamızda Büyüyen Sivil Toplum", Üç Sempozyum, Sivil Toplum Kuruluşları, İstanbul: Tarih Vakfı, s. 98-196.

Göle, Nilüfer (2000) İslam ve Modernlik Üzerine Melez Desenler, İstanbul: Metis Yayınları.

Güler, H. Enerji ve Tabii Kaynaklar Bakanı, 9 Kasım 2004 Sabah Gazetesi.

Gümüşhacıköy Ticaret ve Sanayi Odası (2004), Sanayi Dokümanı 2004 (unpublished).

Güner, A. (2000), Flora of Turkey and the East Aegean Islands, Vol.11, Edinburg.

Gür, M. O. (1997), Yeşilırmak Bentik Alg Florasının İncelenmesi, Gaziosman Paşa Üniversitesi Fen Bilimleri Enstitüsü Yüksek Lisans Tezi (unpublished).

HABITAT II (1996), Türkiye Ulusal Rapor ve Eylem Planı.

Harita Genel Komutanlığı (2004),1/250 000 Ölçekli Sayısal Harita, Ankara.

Hartman, H. (1990), "Capitalism, Patriarchy, and Job Segregation" Women, Class and the Feminist Imagination, içinde Hansen ve Philipson (ed.), Temple University Press, Philadelphia.

Havza Ticaret ve Sanayi Odası (2004), İmalat Sanayi İşletmeleri Üye Listesi 2004, (unpublished).

Hazine ve Dış Ticaret Müsteşarlığı (2004), (unpublished), Ankara.

KGM (2004-1), Devlet ve İl Yolları Uzunlukları 2001 (unpublished).

KHGM (2004-1), Hizmet Uygulamaları Genel Envanteri, KHGM, Ankara.

Kültür ve Turizm Bakanlığı (2004-1), Kültür Envanteri, Anıtlar Müzeler Genel Müdürlüğü Verisi, (unpublished), Ankara..

Kültür ve Turizm Bakanlığı (2004-2), Konaklama İstatistikleri (unpublished).

Kültür ve Turizm Bakanlığı (2004-3), Türkiye Turizm Master Planı – Tur Güzergahları ve Mola Noktaları (unpublished).

Kültür ve Turizm Bakanlığı (2004-4), Bilgi İşlem Daire Başkanlığı (unpublished).

Kültür ve Turizm Bakanlığı (2004-5), Turizm İstatistikleri (unpublished).

ORKÖY (2004), ORKÖY Genel Müdürlüğü, İstatistik Şube Müdürlüğü, Ankara.

Samsun Tarım İl Müdürlüğü (2004), Hayvan Sayısına Ait 2003 Yılı Verileri (unpublished).

TKİB (2003-1), Amasya Tarım Master Planı, TKİB, Ankara.

TKİB (2003-2), Çorum Tarım Master Planı, TKİB, Ankara.

TKİB (2003-3), Samsun Tarım Master Planı, TKİB, Ankara.

TKİB (2003-4), Tokat Tarım Master Planı, TKİB, Ankara.

TKİB (2004-1), II.Tarım Şurası Çalışma Belgesi, Ankara.

TKİB (2004-2), Tarım İl Müdürlükleri Verileri (unpublished).

Tokat Tarım İl Müdürlüğü (2004-1), Hayvan Sayısına Ait 2003 Yılı Verileri (unpublished).

Tokat Tarım İl Müdürlüğü (2004-2), Yeşilırmak Nehri Kirlilik Analizleri Verileri (unpublished).

Yüksek Planlama Kurulu (2006), Ulusal Kırsal Kalkınma Stratejisi, Resmi Gazete, 4 Şubat 2006 Sayı 26070.