

SLOVENIA



1. OVERVIEW OF NATIONAL POLICIES AND DEVELOPMENT PLANS

1.1 SLOVENIA AND ITS PEOPLE

Slovenia is a country about the size of Switzerland covering approximately 20,000 square km and borders on Italy, Austria, Hungary and Croatia. It has a population of 2,000,000 of which 90% are Slovene by nationality. 50% of the population reside in 50 cities and towns with Ljubljana as the largest with 270,000 inhabitants.

1.2 NATURAL RESOURCES

Natural agricultural resources in Slovenia are diverse, but mostly they can be characterized as unfavorable. The basic features are dense forest cover, unfavorable relief and a high proportion of pure grassland.

Forests cover more than 54 % of the land and in terms of the proportion of forests in total agricultural land, Slovenia is the third largest in Europe (after Sweden and Finland)

Agricultural production is rendered difficult in one way or another on more than 70 % of agricultural land. This fact places Slovenia among the countries with the most difficult conditions for agricultural production in Europe. The major portion of agricultural land with unfavorable conditions for production is located in the highland and mountain regions, which represent 49 % of all agricultural land in Slovenia. The unfavorable conditions do not in fact prevent agricultural production, but seriously affect the competitive and adaptive ability of Slovenian agriculture.

A high proportion of pure grassland and low proportion of arable land in the overall composition of the land also contribute to low adaptability. In Europe, only Ireland and Switzerland have a higher proportion of grassland in the overall land structure. It is understandable, therefore, that cattle breeding dominates in agricultural production in Slovenia.

2. PRESENT STATUS OF WATER

2.1 WATER RESOURCES AND QUALITY

Slovenia is a country rich in water resources. Rainfall during an average year amounts to 1.500 mm, reaching 3.000 mm in the west and 800 mm in the east. From a total average precipitation of 32.2 billion m³/year, about 18,7 billion drain into the rivers (of which approximately 80 % flow to the Danube and almost 20 % to the Adriatic Sea). The remaining precipitation infiltrates into groundwater or evaporates (vegetational evapotranspiration).

2.1.1 Groundwater and springs

The water abstracted from groundwater aquifers and springs is used for public supply. Water balances for individual aquifers are not available. The used aquifers are mostly shallow and located in the gravel beds along the valleys, where urbanization, industry and agriculture are concentrated. A large quantity of water from rainfall and runoff infiltrates the Karstic aquifers. Groundwater in gravel bed aquifers is located in the proximity of water users and easily tapped. The disadvantage of these sources is their exposure to the effects of urbanization, and to other environmental impacts which are difficult to control.

2.1.2 Quality of groundwater

Although the quality is generally acceptable by EU standards in most regions, these sources are being contaminated particularly by agricultural and also by industrial, and municipal contaminates.

The monitoring of water quality is carried out by the Hydrometeorological Institute. The program operates 84 sampling points in 18 different water-tables. In the western part (Vipava Valley) the underground water quality is relatively good.

Spring water quality in the Karstic area is also very sensitive to human activities. Untreated sewage is major pollution source here. In the Alpine hinterland, springs are much cleaner and used as a major source for domestic water supply.

2.1.3 Surface water

Slovenia has seven transboundary rivers: the Mura (from Austria to Croatia), the Drava (from Austria to Croatia), the Sava (to Croatia), the Vipava (to Italy), and the Soca (to Italy). The area of 16.500 km² is drained into the Black Sea (this is part of the Danube Drainage Basin) and 3.750 km² is drained into the Adriatic Sea. The Slovene share in the Danube river basin covers about 81 % of the country and hosts about 80 % of the total Slovene population. The main characteristics of river basins are presented in the following table 1.

Table 1. Main characteristics of river basins

Rivers	Precipitation (10 ⁶ m ³ mm)	Flood plains (ha)	Drainage (10 ⁶ m ³ /y, mm, %)	Population (% of nat. total)	Agriculture (% of nat. total)	Industry (% of nat. total)
Mura	1197, 861	18,700	340, 245, 28	7.0	23.7	6.0
Drava	3671, 1125	16,000	1832, 561, 50	20.9	24.3	20.7
Sava	20773, 1757	31,700	12294, 1040, 59	59.8	45.0	62.0
Total Danube Basin	25641, 1556	66,400	14466, 878, 56	87.7	93.0	88.7
Soca	5469, 2278	2,900	3812, 1588, 70	6.4	4.6	6.8
Primorska region	1070, 779	2,200	394, 287, 37	5.8	2.4	4.5
Total Adriatic Sea	6539, 1732	5,100	4206, 1114, 64	12.3	7.0	11.3
Total Slovenia	32180, 1589	71,500	18672, 922, 58	100.0	100.0	100.0

Source: *Compiled from various sources.*

Flood protection: To provide protection against frequent and devastating floods, about 10 % of low land water – i.e. 2.490 km of river stretch – has been regulated, 800 km of water streams are protected as natural heritage and 23.310 km preserve their natural appearance.

International cooperation: Slovenia participates in international projects for the protection and use of the Danube River, and signed bilateral agreements on water management cooperation with Austria, Croatia, Hungary and Italy.

2.1.4 Surface water quality

Surface waters are monitored by the Hydrometeorological Institute at more than 100 sampling points along the main rivers.

Surface water quality is classified into 4 classes: Mura river shows that quality of water has improved since 1989 from quality classes 2 to 3 in 1994, what is most probably due to rehabilitation measures taken in Austria. The situation is similar in the Drava river. The decreasing industrial pollution during recent years is considered to be the principal cause. The quality of Sava river has also improved recently, but it is still between classes 2 and 3. The river Soca in its entire drainage basin is classified in classes 1 or 2.

2.1.4 Water use and waste water

Water uses : Surface water is the dominant source of cooling water in electricity generation, while groundwater is the major source for the public supply. Domestic use of water from both underground and surface resources increased between 1980 to 1994 by approx. 21 %. In 1994, domestic water use totaled 87 million m³, and consumption per head stood at some 37,3 m³/year, i.e. around 100 liters/day.

Manufacturing and agriculture use more surface than groundwater. In manufacturing, there was a reduction for some 50 % between 1980 and 1994 – almost equally shared by surface and groundwater sources. In agriculture, water use increased slowly, particularly from surface waters (Table 2).

Table 2. Water use (million m³)

	1980	1985	1990	1994
Surface water				
Public water supply	7	9	5	11
Electricity production	65943	66210	50461	65087
Manufacturing industr.	104	65	77	47
Agriculture	0.2	3.9	2.9	3.2
Groundwater				
Public water supply	99	121	132	147
Electricity production	19	15	1	6
Manufacturing industr.	42	39	32	23
Agriculture	0	0	1	0.2

Source : ECE/IEDS database

2.1.5 Relevant Major Legislation/Regulations : Environmental Protection Act (EPAct)

The Environmental Protection Act (EPAct) and Law on Water have been prepared and are pending; whose objectives are to improve water quality. The Environmental Protection Act (EPAct), includes the implementation of regulations on the control of water pollution from point sources and non-point sources from agriculture. It sets out the principles of (i) control by State bodies, local authorities, and the polluters, (ii) the liabilities for pollution and damage, and (iii) public access to relevant information.

The general Law on Water is supposed to regulate discharges along rivers, calculates charges, and specifies EIA requirements in accordance with the EC water quality directives. In addition, in the scope of River Basin management plan a Master Plan for Sewage and Waste -Water Treatment is currently being prepared.

International cooperation on water management in Slovenia is well established, particularly in terms of bilateral agreements. Slovenia has joined the (i) ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and (ii) the Convention on Cooperation for the Protection and Sustainable Use of the River Danube and (iii) the Convention of protection of Mediterranean sea (Barcelona Convention). These agreements are particularly useful for settling future disputes. For example, the ongoing Slovenian Coastal Management Program will be efficient only if coastal management programs are also developed by Italy and Croatia.

3. PRESENT STATUS OF FOOD

3.1 LAND RESOURCES AND LAND USE

Out of the total area of Slovenia of 2.027 million ha, 54.3 percent is covered by forest and 38.5 percent is classified as agricultural land. About 70 percent of the agricultural land is less-favored hilly and mountainous regions, mainly used for permanent pasture. The total area in Slovenia that is classified as agricultural land (both farmed as well as not utilized) has itself been declining constantly over the past thirty years, but the process has accelerated considerably since independence. From 1970 until 1989 the average annual decline in agricultural land was 0.44 percent (from 944 928 ha to 869 829 ha), but between 1989 and 1997 the annual decline has averaged 1.34 percent. This fall corresponded an increase in forest area (overgrowing of agricultural land) and non-productive land (urbanization, infrastructure). The rapid reduction in arable land represents the most serious concern (since 1960 the area of arable land has been reduced by 48,000 ha). Regulations on protection of arable land against changes to its purpose

place some limits on encroachments on agricultural land, but cannot properly protect the best agricultural land. (According to categorization data there are only 799,000 ha of agricultural land left in Slovenia, that is 70,000 ha less than what is shown by statistics). We have attempted to mitigate the consequences of such encroachment through intensive measures for land improvement by agricultural operations [drainage, irrigation, land consolidation; MAFF has sponsored the implementation of study for National Irrigation Program (NIP: 1993-1994) with the aim to secure quality food for the needs of the country. On the base of NIP MAFF is budgeting the implementation of irrigation systems on approximately 3.000 ha of agricultural land per year for the major agricultural products (mainly vegetables and fruit production). It is also important to mention that there was serious drop in productive land after the second world war due to fast urbanization which mainly occupied the best fertile soil. From 1945 till 1990 72.000 ha of the best productive land was urbanized. Government of Slovenia has therefore financed the implementation of drainage systems on approximately 72.000 ha on endowment basis. These systems are not maintained sufficiently and their efficiency is in diminishing stage]. that started extensively in early seventies and today the improved land produces 45 % of all corn, 40 % of sugar-beet and 30 % of wheat. Table 3 indicates the structure of land use in 1997, by ownership categories.

Table 3. Slovenia – Area by land use and ownership categories in 1997

	Total		Private		State	
	ha	percent of land	Ha	Percent of category	Ha	percent of category
Total area	2,027,245	100.00	1,420,343	70.06	606,902	29.94
Forests	1,098,844	54.20	719544	65.48	379,300	34.52
Bare land	142,902	7.05	32,722	22.90	110180	77.10
Fishponds	4,521	0.22	3,454	76.40	1067	23.60
Agricultural land	780,978	38.52	664,623	85.10	116,355	14.90
Not utilized agric. Land ¹	166,286	8.20	108,856	65.46	57,430	34.54
Not utilized agric. Land ²	314,389	15.51	234,061	74.45	80,328	25.55
Area farmed	466,589	23.02	430,562	92.28	36,027	7.72
Arable land	173,658	8.57	148,601	85.57	25,057	14.43
Permanent grassland	265,486	13.10	258,954	97.54	6,532	2.46
Orchards	10,983	0.54	9,358	85.20	1,625	14.80
Vineyards	16,462	0.81	13,649	82.91	2,813	17.09

1. As reported by the Statistical Yearbook of the Republic of Slovenia (SYBRS) 1997.
2. As derived by subtracting from the total agricultural land the area farmed as reported by the Farm Structure Survey (FSS) 1997

Source. FSS 1997, and SYBRS 1997

Of the total agricultural land only 60 percent is farmed, and this is because of abandonment of much agricultural land previously used as pasture or extensive grassland, that is reverting to forests or meadows. Of the total farmed area only 173 658 ha, or 37.3 percent, is arable land, the bulk of the rest (56.7 percent) being grassland. A major reason for the abandonment of agricultural land, is the slow implementation of the Denationalization Law and resolution on the legal status of previous community pastures. Before collectivization, it was a common practice to use a certain area of pasture as a local community grazing land. After independence that community land was subject to decollectivization and local grazing groups were dismantled. Legal restrictions on land use have caused abandonment of those pastures and their afforestation. Besides that, the land cadastre was not regularly updated on actual land use and categories were

not reflected in those records resulting in overestimates of productive land categories, and the apparent discrepancy shown in table 5 between the unutilized agricultural land, measured by different methods.

Noticeable from the table are the difference in percentages owned by the state among arable land, orchards, and vineyards on the one hand (where the state owns 14.6 percent of the total land), and grasslands on the other (where the state owns only 2.5 percent of the land). It is clear that there is still considerable state ownership of the more productive agricultural lands.

During the period of past political system, Slovenia maintained private land ownership. However, legal restrictions on maximum farm size prevented normal adjustment of farms to achieve economies of scale. Generally, policy measures and objectives were oriented towards "silent" collectivization. Upstream and downstream services were provided by local, government controlled co-operatives and large state farms. Overall agricultural policy was geared towards enlargement of state companies and collectivization, but farmers resisted giving up their land. They continued to farm on small farms, and to increase the family income, by finding employment in other sectors of economy. The processes of concentration of state owned companies were more pronounced in the regions with better conditions for agricultural production. The largest proportion of State owned arable land is in the north-east and flat Pomurska and Podravska regions (18 percent and 23 percent state ownership of arable land respectively), and these are the only regions with more than 50 percent of total area classified as agricultural land.

3.2 FARM SOCIO-ECONOMIC STRUCTURE

The farm structure in Slovenia is dual. Currently (1997) there are 90 612 agricultural holdings farmed by households (household holdings or HHs), and 219 agricultural enterprises or companies (ACs), which have evolved from the transformed former state farms. The number of ACs has increased since 1991 (from 189 to 219) due to break-up of some of the former state farms. However, between 1990 and 1997, the total number of employees in such farms has declined.

The agricultural households in Slovenia own more land than they farm. This is because much of the owned land is forest land, and land for other uses. As seen in table in Chapter 3.1 of the total designated agricultural land 85 percent, or 664 623 ha is privately owned, but this does not necessarily belong to agricultural households.

Almost all farm households own land, but their total land ownership has declined since 1991. At the same time there has been a shift within farm types, with the larger classes in all farm types and the supplementary farm households in all size classes expanding their total land ownership, at the expense of the households with smaller farm holdings, among the full and part time as well as the aged ones.

3.2 AGRICULTURE

Slovenian agriculture exhibits the characteristics of a typical temperate zone. More than half of agricultural production (54.5 percent) is accounted for by animal products. The most important crop product groups are cereals, fruits, grapes, must and wine. Among animal products, cattle, cow milk, and pigs predominate.

The most important arable crops on HHs in terms of area planted are; grain maize (28 percent of arable land of HHs), wheat (22 percent), silage maize (21 percent), and potatoes (13 percent). Dominant groups of crops on ACs are cereals and industrial crops (sugar beet and hops). The most important livestock animals in Slovenia are cattle pigs poultry horses (8 000) and sheep.

3.4 FOOD BALANCE OF SLOVENIA

The basic characteristic of food balance is low self-sufficiency in bread grains, sugar and edible oil. Self sufficiency in beef and wine is also low, given the local conditions, but we are self-sufficient in fruit. The export of potatoes is relatively small compared to production. Slovenia has an important surplus in hops (traditionally export-oriented production), poultry and milk. The estimated aggregate index of self-sufficiency in food is 93.3 %, although since much of the feed is imported (index of self-sufficiency in feed concentrates is 1 %) the real index of self-sufficiency is only 78 %.

Compared to Western Europe, the level of self-sufficiency in Slovenia is low. Self-sufficiency in bread grains, sugar and edible oil in Slovenia is among the lowest in Europe and does not assure satisfactory food security for the population. Under extreme circumstances we could even face famine.. The uneven food balance, however, originates in the unbalanced agricultural development. Development of animal husbandry was favored in disproportion to crop growing. Difficulties associated with milk surplus are similar to those in more developed European countries, although Slovenian agriculture does not meet the average level of production as present in Western Europe.

3.5 ECONOMIC STATUS OF AGRICULTURE

Financial results in Slovenian agriculture are generally poor. The economic situation as deteriorated since 1983, as the consequence of an unbalanced price policy (prices of agricultural products did not follow the general price growth) The deteriorating economic situation was strongly reflected in agricultural investments, which in the late eighties dropped by almost a third below the level in 1980. Financial results in crop production were always better than in animal husbandry.

3.6 COMPETITION OF SLOVENE AGRICULTURE ON FOREIGN MARKETS

According to production costs, Slovene agriculture is generally competitive in Europe. This is mainly due to the cheap labor force. Compared to neighboring countries, the agricultural worker in Slovenia earns on average from 145 % to 365 % less per hour. On the other hand, prices in foreign exchange are generally lower in the home country. Countries competing with Slovenia on the international market artificially lower their prices through export subsidies and this (without adequate measures at home) diminishes the competitiveness of Slovenian agricultural products.

3.7 INTERVENTION IN AGRICULTURE

Slovenia has had a continuous system of intervention since 1981 and production, economic and structure indices show positive results. Due to established intervention system in agriculture it was possible to increase production of most products, improve the structure of production, improve the social and economic security of the farmers and keep agricultural land inhabited and cultivated.

4 PRESENT STATUS OF RURAL DEVELOPMENT

4.1 ANALYSIS OF THE GENERAL OBJECTIVES

Development of the food and agriculture sector in Slovenia is guided by the four main objectives of the "Development Strategy of Slovenian Agriculture", that have been adopted by the parliament and reaffirmed by the later MAFF strategy document and the recent EU accession strategy document. These objectives are very general and open to wide interpretations:

Stable production of quality food at reasonable prices and food security

As noted earlier this goal means that price and intervention policy should aim at achieving an aggregate level of self sufficiency close to 100 percent, with specified target levels of self sufficiency for the major products, and that domestic prices should be stable.

The basic issue that needs to be discussed is the best way to achieve food security for the population. The major result of many years of research and experience in many parts of the world is that food self sufficiency is a costly way to achieve food security. The best way is a policy of open trade, coupled with an agriculture and food sector that generates enough resources (namely value added) that permits the purchase (from either domestic or international markets) of the food required for the economy. In fact this policy, if followed for the whole economy, is even more likely to achieve food security at least cost. Much higher degrees of self sufficiency can be generated if a policy relying on specialization according to comparative advantage (food quality) is followed. Food self sufficiency is justified only when a country is severely isolated, and seriously threatened with potential food embargoes and when food on foreign market is not of acceptable quality.

Preservation of population density, and agricultural land (preservation of production potential in case of interrupted supply), and protection of land and water from pollution

This goal has been interpreted to mean that all agricultural land is cultivated, the family farm as a multi-purpose unit is promoted, and that moderately intensive production and low livestock density is promoted to avoid environmental problems.

Slovenia is very small country and hence the distances between the rural and urban areas are quite small. In such a context there are many people that can live in rural areas and work in urban ones. For such people agriculture is not a significant economic activity, and is at most a hobby. On the other hand, such people, if they practise farming, they are more likely to adopt environmentally friendly practises, as they might be more concerned with the preservation of the environment, and less about income from agriculture.

Nevertheless, there are some relatively remote areas, where the population depends largely on agriculture. If agriculture is to be practiced by low intensity methods in such areas, however, agricultural incomes will be low, and this will not contribute to the objective of keeping these people in the relevant regions.

It thus appears that there might be some type of contradiction among the goals of preservation of regional population density, and the goal of environmentally friendly low intensity agriculture. The latter does not generate adequate income, which, however, is needed to keep people in the rural areas. Environmentally friendly production can be practiced when the producer either has other sources of income, or large enough scale of production to generate adequate income. Land, however, in Slovenia seems to be scarce to allow large scale of individual private agricultural production.

Permanent Increase in Competitiveness

While the goal of increased competitiveness is a valid one, it has been interpreted as meaning that the agricultural sector should support larger and more educated farmers, with more rationalized production, better technical services and better organization. The apparent underlying assumption is that such larger farmers are more efficient and hence more competitive.

Guaranteed parity income for above average producers

This goal in Slovenia means firstly maintaining production in regions with difficult production conditions (namely where all productive land is cultivated and hence there is no more room to expand), and also parity prices, direct payments, and support for complementary activities.

4.2 TRADE POLICY

Between 1993 and 1996, while aggregate exports and imports of Slovenia increased by 36.6 percent and 37.1 percent respectively, exports and imports of agricultural and fishing products increased by 20.9 percent and 36.2 percent respectively, while exports and imports of food manufactures increased by 10.5 percent and 33.4 percent respectively. Clearly the exports of agriculture and food products have increased much less than overall exports, while imports have changed very much in line with overall imports.

Total trade has mostly been redirected from countries which were part of Yugoslavia to other European countries. The EU has generally become the most important importer of Slovenian products.

4.3 PRICE POLICY

Until independence Slovenia had no agricultural policy of its own. Market and price policies fell entirely under the federal government, while former republics only had some competencies in the fields of structural policies. The first two steps in setting an independent agricultural policy were taken by adopting the "Strategy for Slovenian Agriculture", in 1993 and by introducing foreign trade protectionism. The basic measure used in the Slovenian price policy is trade protectionism. There are no intervention mechanisms in the domestic market similar to those of the EU, and there are no administrative constraints on production similar to those of the EU, as there has been no need to introduce any.

5. FUTURE SCENARIOS AND AIMS

5.1 A SUGGESTED STRATEGY FOR WATER MANAGEMENT

The authorities of Slovenia, in particular MoEPP, are aware of the importance of encouraging and developing tools to deal with water management. The decision to draft and enact the "Water Law" was particularly appropriate. In the light of the arrangements made to date, the law is supposed to be a comprehensive legal framework for water management. Accordingly, it is supposed to lay the ground for the necessary managerial decisions concerning water abstraction, water supply, preservation of water resources, water uses, and water related taxes and other payments. The law is supposed to prepare the ground for regulations to protect water against pollution with fuel, waste, sewage, etc. It is supposed to develop all administrative tools necessary for good water management.

The most important tasks of water management in Slovenia are :

To ensure safe water supply with suitable water quality in rivers and groundwater, and water treatment facilities throughout the country.

To prepare a coherent overall strategy on :

- national water planning program,
- national master plan for water resources and sewage treatment,
- general plans for groundwater resources,
- general plans for run-off basins.

None of these exist today or is in developing stage. MoEPP could benefit from the allocation of more budgetary funds for research for compilation of data, the presentation of critical views regarding current priority issues as well as plans for the future. It is also necessary to develop forecasting tools like modeling, as well as methods for water treatment.

A reliable information system, which includes all the needed data, is necessary, as well as computing division, responsible for data collection, database development, data editing and analysis. The database system to be developed should be geo-referenced.

A good monitoring should be developed; the present monitoring should be extended to both individual and public supply systems, to help detect leakages and prevent quality incidents. Data should be used more systematically in analysis and for action plans.

For water-supply systems it is necessary to take immediate action to solve acute problems that endanger the safety of drinking-water supply because at the present time more than 20 % of the water-supply systems in Slovenia are not well 'organized'. It seems that supply systems are not functioning well for lack of maintenance.

It is necessary to give more attention to water resources for rural development and food production and help MAFF to implement the programs on irrigation, drainage and physical planning of rural areas.

5.2 A SUGGESTED STRATEGY FOR THE AGRICULTURAL AND FOOD SECTORS

Despite the problems presented in previous chapter, it is the feeling that Slovenian agriculture, as well as food processing have considerable potential within the EU market, but currently they are overly burdened with structures and policies that carry over from the past, and prevent the dynamic elements within the two sectors to realize their potential. The food-processing sector has good technology, quality standards and competence. However, it is hampered by high raw material costs, and inability to adapt to changing market conditions because of the structure of ownership, and the difficulty of creating the appropriate management structures.

The basic thrust of the overall strategy is to pursue the development of high valued, quality based, differentiated, and internationally competitive agricultural and food products, oriented toward both domestic as well as international markets.

6 CHALLENGES FOR THE FUTURE

6.1 SPECIFIC POLICY DIRECTIONS AND RECOMMENDATIONS IN WATER MANAGEMENT SECTOR

All legal instruments that are necessary for a full implementation of the provision of the new 'Water Law' should be developed with high priority. Establishing a national strategy on water management is a matter of priority. It should include measure to prevent and reduce pollution from point source and diffuse sources.

The MoEPP should decide to extend the national water resources strategy into a comprehensive, long-term water management program, including specification of mechanisms for funding expenditures. The enforcement of all relevant legal instruments should be seen as indispensable in the implementation of the water resources strategy.

Water conservation measures should be defined with regard to industrial, municipal and agricultural water use. The setting of water prices at levels covering abstraction costs is a strategic objective in this connection.

Special attention should be given to water for rural development and food production (water resources for irrigation purposes, implementation of irrigation and drainage systems, maintenance of existing drainage systems, etc.) where MoEPP together with MAFF should find mutual solution for the implementation of the program.

In the near future, the allocation of available funds to the upgrading of existing and the construction of new waste-water treatment facilities, which clearly improve treatment efficiency, should be given priority over alternative uses of funds. The regulation implementing effluent monitoring by polluters should be prepared and enforced with priority.

Increased research funds should be allocated to the evaluation of water management practices as well as the formulation of alternative options. The Planning Division of the MoEPP should be put in a position enabling it to play the leading role in the specification of water management plans and related investment programs. If the creation of a formal regional level of administration is impossible, the Water Management Department of the MoEPP should implement regional water management.

Monitoring activities should be systematically extended to cover all existing water-supply systems, not only the public supply systems.

Monitoring data should be more extensively and systematically used in program analysis and for the preparation of action plans.

6.2 SPECIFIC POLICY DIRECTIONS AND RECOMMENDATIONS IN AGRICULTURAL SECTOR

The determination of Slovenian agricultural policy objectives for the development in future is based on the following guidelines:

- degree of economic and social development achieved in Slovenia,,
- developmental trends of developed countries and the necessary integration of Slovenia into the world economy,
- possibilities of agricultural development in terms of natural resources and marketing potential (at home and abroad),
- role of agriculture in maintaining the population density and constant soil fertility.

Goals of agricultural policy:

1. Stable production of cheap and quality food and food security in Slovenia
2. Preservation of population density, cultural regions and agricultural land (preservation of production potential in case of interrupted supply), protection of agricultural land and water from pollution and misuse
3. Permanent increase of competitiveness
4. Guaranteed parity income for above-average producers.

The concept of agricultural stemming from the defined objectives represents a combination of eco-social and market concepts. Its main feature is that in consideration of ecological and space limitations, it establishes a market economy in an appropriate manner...

The definition of development objectives represents a target scenario, where the desirable development is quantified (target scenario 3). It should be stressed, however, that there are no planning definitions. The displayed numerical figures of the target scenario serves mainly as a guide for agricultural policy.

6.3 WATER FOR FOOD AND RURAL DEVELOPMENT

Having in mind that there is approximately 800 mm (East) to 3000 mm (West) of precipitation per year, Slovenia could not be considered as country suffering deficiency of water. Rainfall is very unevenly distributed over the year, high maximums of rainfall occurs and a great deal of this water runs off into Black and Adriatic sea and also high minimums of rainfall occurs over the year; agricultural production often suffers serious droughts. There were serious droughts in the country as a whole in years 1983, 1985, 1988, 1992, 1993, 1994, while in some regions droughts occur every year (depending of the duration of rainfall absence, depth of the soil and its water retention characteristics, stage of crop growth, etc.).

To ensure stable and quality agricultural production MAFF planes on the base of National Irrigation Program of Slovenia to give financial support for the implementation the following water management actions for rural development:

- to ensure sufficient water resources for irrigation needs (water reservoirs, pumping stations, pipe distribution net),
- irrigation systems are supposed to be implemented on 3000 ha every year,
- drainage systems that were implemented in past 30 years (1969 – 1999) on approximately 72000 ha and are poorly maintained are supposed to be reconstructed where required and/or maintained properly. Financial support is being given to farmers for these actions.