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**The Forgotten Countryside: Agricultural Development in the
Western Balkans. A Case Study of Republika Srpska**

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Preface

The purpose of this preface is to provide general clarification as to my reasons I have engaged in this research, explain my investigative approach, and what I expect to achieve or accomplish through my research into the topic that I have selected for this PhD dissertation.

Specifically, I wish to clarify the reason I have chosen to research the Western Balkans. In so doing, I will expound upon my thoughts and beliefs with respect to the nature of the research process and its inherent limitations. Finally, it is the intent of this introduction to impart to you a sense of the passion that I feel for both the general process of conducting academic research, and, more in particular, for the specific geographic location upon which it is focused.

Preface. Step 1: searching for research

Lo sforzo fatto per conquistare una verità, fa apparire un po' come propria la verità stessa, anche se alla sua nuova enunciazione non si è aggiunto nulla di veramente proprio, non s'è data neppure una lieve colorazione personale. Ecco perché spesso si plagiano gli altri inconsciamente, e si rimane disillusi per la freddezza con cui vengono accolte affermazioni che riputavamo capaci di scuotere, di entusiasmare. Amico mio, ci ripetiamo sconsolatamente, il tuo era l'uovo di Colombo. Ebbene, non mi importa di essere lo scopritore dell'uovo di Colombo. Preferisco ripetere una verità già conosciuta al cincischiarmi l'intelligenza per fabbricare paradossi brillanti, spiritosi giochi di parole, acrobatismi verbali, che fanno sorridere, ma non fanno pensare.

(Antonio Gramsci, La città futura (1917-1918))

Numerous are the times that I have written drafts of the first page of this PhD thesis. Numerous are the times that I have rejected them. Numerous times I thought research question was wellcrafted, only to select another that seemed more appropriate and succinct.

Numerous have been the times that I also thought I had amassed a vast storage house of knowledge on a specific process or mechanism, that momentarily yielded to me a profound understanding, only to later realize that further complexities and additional issues have been presented.

I have spent more than five years advancing my knowledge of agricultural economics, rural development, foreign aid and international relations. An even longer period has been spent in a specific area: Central Eastern Europe (CEE) and South Eastern Europe (SEE). During these years, I was looking for an innovative research subject, and for a specific methodology. It was difficult to find an innovative subject in agricultural economics, as well as in rural development, foreign aid issues or international relations. Yet, the agricultural sector in CEE and SEE is still partially

unexplored. The exploration that has been conducted, especially in SEE, is widely based upon documents and reports that have been produced by international organizations, institutions in the bilateral cooperation system and NGO's. This means that the overall approach is more based upon consultancy, or at least more linked with commissioned than with independent research.

One question which I have posed to myself on a continuous basis since I entered into the academic world is what is the role and nature of research particularly within social and economic spheres in modern society. I have been partially satisfied with the observation of S. Maxwell¹, who discovered four styles of "being a researcher". According to him, a researcher can be seen as: a "*story teller*", a "*networker*", an "*engineer*", or a "*fixer*"². The "*story teller*" presents findings in a manner that can be useful to the makers of policy, helping them to frame problems and identify practical solutions. The "*networker*" shares findings with the community at large, leaving it to its own devices as to what to do with the information. An "*engineer*" will work to bridge the gap that oftentimes exists between senior level makers of policy and the politicians who implemented it. Finally, the "*fixer*" is a cult-like figure (e.g. Raspuntin, Machiavelli), who is aware of when and to whom to market findings.

With the aforementioned framework, what is the role of the PhD candidate? As I stated at the beginning, I advocate the need for innovation in the identification of issues and originality in research techniques. However, literature exploration and empirical experience acquired over a period of time forces me to the conclusion that worthwhile research for a PhD must be predicated upon the cumulative skills of meaningful testing, adaptation and implementation of relevant methods. In the composition of this doctoral thesis, I have designed my own "toolbox" of research skills and techniques or methodology, which I could readily adapt to the dynamics of my chosen subject. In this effort, I have greatly benefited from the current proactive trend on the part of the academic world to cooperate with society as a whole. During the last few years, I have enjoyed opportunities to attend seminars and lectures in many different countries, to conduct desk research, visit and make observations in the field. I have also acquired experience in the development of agricultural projects, on a national and international scale, for both governmental and non-governmental organizations. These projects have entailed coordination of activities, presentations in the forms of lectures and written reports, and diversification in research skills.

My work and approach have caused me to encounter a diversity of people and a number of locations, and have obviously shaped my efforts, wherever my research has taken me or I have taken it. So ideally this research has been written among Bologna, Cervia, Skopje, Porretta Terme,

¹ D. Stone, S. Maxwell, 2005.

² Ibidem.

Banja Luka, London, Sarajevo, Mostar, Beograd, Novi Sad, Cacak, Budapest, Tirana, Maputo, Leuven, Brussels, Riga, Jurmala, Praha, Vilnius, Kaunas, Avignon, Ljubljana, Columbia, Pisa, Venice, Udine, Saranda, Zagreb, Rijeka, Forli, Ravenna, Washington D.C., Chicago, and numerous other cities and the countryside between them.

Preface. Step 2: the Balkans (why the Balkans and which Balkans?)

Time never dies. The circle is not round.

Time never dies. The circle is not round.

Time doesn't wait, because the circle is not round.

From "Before the rain" directed by Milko Manchevski

Sono su un Orient Express che non è un espresso e non è nemmeno Oriente. In Europa l'Oriente non c'è più, l'hanno bombardato a Sarajevo, espulso dal nostro immaginario, poi l'hanno rimpiazzato con un freddo monosillabo astronomico: 'Est'. Ma l'Oriente era un portale che schiudeva mondi nuovi, l'Est è un reticolato che esclude.

Paolo Rumiz, *È Oriente*

Probably it would not have been necessary to explain why I chose to research the Balkans if I had been born in Albania, Bosnia Herzegovina, Bulgaria, Croatia, Kosovo³, FYROM Macedonia, Montenegro, Romania, Serbia. And also Greece and Slovenia and might be Hungary. But which are the Balkans? This is probably determinate upon whether the term "Balkan" is being used in an administrative, geographical, historical or political sense. The term is somehow fluid.

Following the EU approach, the definition of "Western Balkans" includes Albania, Croatia, Bosnia Herzegovina, FYORM Macedonia, Montenegro, Kosovo and Serbia. Moreover in the EU framework is slowly growing also the use of the term South Eastern Europe, which is related to the Stability Pact for South Eastern Europe, and includes Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Moldova, Montenegro, Romania, Serbia and The Former Yugoslav Republic of Macedonia⁴.

Geographers, in a *strictu sensu* physical geographical definition "*accepts as the undisputed eastern, southern and western borders the Black Sea, the Sea of Marmara, the Aegean, Mediterranean, Ionian and Adriatic Seas. The northern border is most often considered to begin at the mouth of the*

³ During the elaboration of this work the question of the Status of Kosovo was under discussion. There is no will in this work to take a position on the Status of Kosovo, neither for the autonomy, neither for the independency. However since the EC administrative definition of Western Balkans will be used Kosovo will be indicated separately from Serbia, as it is indicated separately in the EC Enlargement website.

⁴ Ibidem.

river Idria in the Gulf of Trieste, following the southeast foothills of the Julian Alps, and coinciding with the Sava and the Danube rivers”⁵.

Maria Todorova (1997) in her *“Imagining the Balkans”* defines the Balkans as *“Albanian, Bulgarians, Greeks, Romanians, and most of the former Yugoslavs. Slovenes, pace Cvijic, are not included, but Croats are, insofar as parts of Croats-populated territories were under Ottoman rule for considerable lengths of time”⁶.*

The title of this work (The forgotten countryside: agricultural development in the Western Balkans. The case of Republika Srpska) recall the term “Balkans”. The title was obviously intended to connote a regional perspective (including Albania, Croatia, Bosnia Herzegovina, FYROM Macedonia, Montenegro, Kosovo and Serbia). This perspective lends itself to a methodology that is grounded upon the use of a case study focused on Bosnia and Herzegovina and in particular on one of the two entity: Republika Srpska.

Nevertheless, the use of the term “Balkans” is also an expression of my sincere appreciation for a mountainous land (Balkan) that I consider to be extremely generous, charismatic, fascinating and rich in both passion and contradictions.

Generally the administrative sense of definition provided by the EC has been adopted as the definitions of “Western Balkans” throughout this work. Therefore, in a strictly technical sense, the subject region is comprised of Albania, Croatia, Bosnia Herzegovina, FYROM Macedonia, Montenegro, Kosovo and Serbia.

So why did I select what is referred to as the “Western Balkans” as the subject of my doctoral thesis?

There are events in life that touch you without your comprehension of their significance. The impact upon society and history of some events are sometimes not comprehended, due to youthful naivety or infirmity. The civil war in Yugoslavia of 1991-1995, the Albanians crisis and mass migration of 1993 and 1997, the war in Kosovo in 1999, the NATO bombing in 2000, were probably epiphanies that forced a new lexicon upon me: communism, globalization, information, internet, international relations, mass migration, nationalism, national identities, state, socialism, transition, totalitarianism, and again enclave, ethnic group, ethnic cleansing, genocide.

I grew up inundated with information about a land that was (and is) so close yet so unknown and misunderstood by the majority of the Italian population. Somehow, ironically, the Western Balkans are considered to be more exotic and mysterious than other areas of the world that have nothing in common with the Italian peninsula. Yet, the WB Countries and Italy are linked by that “liquid bridge” that is the Adriatic Sea. For centuries, the WB and Italy have exchanged people, trade, art,

⁵ M. Todorova, 1997, p. 30.

⁶ Ibidem, p. 31.

words, stories, etc. There have been extensive relations established and maintained between both the coastal and interior areas, including agricultural and rural regions. This is witnessed by the migrations of demographics, products and traditions.

So why the Balkans.

There was probably my personal desire to overcome the misinformation about this region. There was a necessity to overcome the stereotype created by mass media through sensationalism and infotainment⁷. There was my curiosity. There was the willingness to visualize a different and more accurate image.

Figure 1. Mare hadriaticum



Source:

This does not mean that there are no tensions and crimes, lack of democracy, lawlessness or anti-social behavior in the Balkans. However, there are also other positive stories to be told, places to see and discover where social progress has been accomplished. There are persons struggling everyday against the constraints that characterize the Balkan societies.

Preface. Step 3: the road haed: for an evolution with development

In describing the evolution of the Balkans⁸ between 1800 and 1914 Micheal Pailaret used the expression “*evolution without development*”⁹ underscoring the economic stagnation that typified

⁷ By its very nature infotainment occupies the space between the two main functions of television, information and entertainment, and it is important to consider that this interstitial genre may spread its tentacles in both directions.

⁸ In his work M. Palairat consider as Balkans Bosnia Herzegovina, Bulgaria, Montenegro and Serbia.

⁹ M. Palairat, 1997.

this period. Moreover, he concluded that the Balkans had spoiled rather than valued its resources, succinctly defining this region as “*the triumph of politics over economic rationality*”¹⁰.

Actually, the developmental process within the countries that comprise the WB can be characterized by a significant dynamism that was rooted in the socialist past, evolved into the civil disorders of the 90’s, transitioned into a market economy, began integration into the European Community, and became influenced by western Europe culture and life.

Empirical observation makes obvious the more promising transformational process that now characterizes this society as a whole in the areas of consumption and production patterns, infrastructures, services and culture. However, this dynamic transformation is also affected by the numerous proclivities imposed through inhibited political involvement, nominal civil liberties, profoundly biased informational outlets that frequently distort the truth about current and historical events, and corruption. Therefore, it appears clear that there is a duality in the nature of developmental process in the Balkans’ modernization and the historical Balkan style of socialism.

The transformation process is ongoing, but – recalling Pailaret – the Balkans today remain “*the triumph of politics over rationality*.” This duality constitutes an impediment to the reform process.

Nowhere has this strong politicization and dual character of the developmental process been more evident than in agricultural and rural sector where cooperatives of old exist simultaneously with modern enterprises and where subsistence oriented farms compete with market oriented farms. Moreover, the agricultural and rural areas have been neglected to the periphery not only physically, but also economically and politically.

¹⁰ Ibidem.

1 Introduction

1.1 Background to research

Out of historical, geographical and economical reasons, land represents a crucial resource for the Western Balkans. Agriculture and rural development play a key role and are necessary basis in the promotion of economic development and social stability. Moreover they represent key challenges on the way of the integration process of the region in the European Community.

Because of the very complex administrative organization created with the Dayton Peace Agreement in 1995, Bosnia Herzegovina (BiH) presents one of the most challenging situations in the region. Agricultural and rural areas have particularly suffered because of this administrative complexity and have been often “*forgotten*” by policies and policy makers. The same complexity has lead to an extremely controversial policy environment that has been strongly characterized by the lack of a long-term perspective and by a non harmonized regulatory framework in which single municipalities have promoted individual development strategies.

The determination of clear policy objectives and the endorsement of a long term coherent and shared agricultural and rural development policy have been affected also by structural problems as the lack of reliable information on population, the absence of an adequate land registry system, the absence of a reliable cadastre and of other relevant data. Moreover BiH agricultural sector is characterized by many factors that have typically affected transition countries as land fragmentation, lack of agricultural mechanization and outdated production technologies, farm size, ageing and depopulation of rural areas, low farm incomes and a high rate of unemployment in rural areas.

1.2 Research objectives

The general objective of the research is to investigate the role of agriculture in the overall development process of Republika Srpska: a social buffer or a driving force?

Overall the present work is aimed to investigate the situation of the agricultural and rural sector of Republic of Srpska (RS) with a particular focus on resource flows to agricultural and rural development. Moreover the research would analyse how subsidies are targeted and how accessible they are for farmers. The most recently developed and adopted national strategies for agricultural and rural development will be taken into consideration as well as the main challenges in the harmonisation of regulations and policies.

More in details the different part of the present work are aimed to answer to the following questions:

1. Which are the main constraints for agricultural and rural development in RS?
2. What is the role of policy?

3. Who are the farmers?
4. Which modernization process for the farms?
5. Which future for the subsistence oriented farms which are not competitive, but which have an extremely relevant social role?
6. Does aid reach farmers? Does policy support farmers?
7. Which agricultural policy for Republika Srpska?

1.3 Organization of the dissertation

The dissertation is organized in four main chapters:

- chapter 2: literature review;
- chapter 3: methodology;
- chapter 4: the forgotten countryside: agricultural development in the Western Balkans. The case of Republika Srpska;
- chapter 5: conclusions.

Chapter 2 refers to the literature review. According to the most common approaches a literature review should be composed by a research phase, in which an issue and the main theories behind that issue are explored, and by a review/study phase in which the main arguments and theories are identified and discussed. As far as this literature review is regarded it is relevant to emphasize that this study has covered almost all the 4 years spent on this PhD:

- in the early stages the research has been more focus on the role of foreign aid and International Organization;
- then has been moved on the Common Agricultural Policy with a particular attention on the Enlargement process;
- and finally in the last period the research focus has been moved on transition countries and in particular on the agricultural sector and related policies of the Western Balkans.

This literature review is aimed to emphasize on the one hand some of the main factors that characterize the agricultural sector in the Western Balkans and on the other hand some of the main elements of the WBs agricultural sector itself :

1. the role of agriculture in the overall development process and the implications for society and environment;
2. the main features of agriculture in transition and emerging countries;
3. the role of foreign aid and International Organizations in the development process with particular reference to the agricultural sector;
4. the role of the Common Agricultural Policy and of the “European Model of Agriculture”;

5. the main features of the agricultural sector and agricultural policies in the WBs.

Chapter 3 describe in details the methodological approach used to carry out this research work. The general approach used is the case study methodological framework designed by Robert K. Yin. Case study is generally considered as a valuable method of research, with distinctive characteristics that make it ideal for many types of investigations and to be used in combination with other methods. However even if the framework proposed by R. Yin can be considered as the main reference for the design of this case study its methodology has been partially reviewed, changed and integrated with other specific methodological tools as the use of the agrarian system analysis, the social network analysis, survey and interviews.

Case study methodology has been chosen for its flexibility and adaptability with the aim to gather additional information and to analyze further elements of the agricultural sector and of RS agricultural policy. It has been considered that in the specific environment of RS the case study approach would offer a more comprehensive analysis of the following aspects:

- socio-economic aspects;
- the analysis of the effects of the agricultural policy on small farms and so on agricultural households;
- effective targeting of agricultural policies.

Chapter 4, the core part of this work, consists of two main section: a wide analysis of the agricultural sector and of agricultural development patterns in BiH; a specific in-depth on RS both at the entity as well as the farm level.

Chapter 5 draws conclusion and policy implications on the basis of the analysis and of the results presented in Chapter 4.

1.4 Delimitation of scope, limits and constraints of the research

The research work has its specific geographical focus on Bosnia and Herzegovina and in particular on the Republika Srpska. Considering the specificity of the transition process that has characterized the Country (the transition from the socialist to the market economy has overlapped with the post-war reconstruction) there are some specific constraints that have to be highlighted and that have somehow lead to chose a flexible and interdisciplinary methodology; mainly these are:

1. The overall complexity of the agricultural administration in Bosnia Herzegovina (BiH):

- agricultural administration is characterized by a “dual” system. There is a Ministry of Agriculture in each of the two Entity (Federation of BiH; Republika Srpska). So there are two subsidy systems with different measures and a different share of the national budget dedicated to the agricultural sector.

- agricultural strategies are different. It is true that the EC and the WB are supporting the integration of the two Ministries, but so far there is not a strong integration and the “agricultural strategies” are still prepared and implemented at the Entity level.
- legislation is dual. Laws and regulation are not the same in the two Entity;
- inspection system is different in the two entities;

2. Lack of data:

- the last agricultural census date back to 1981;
- the data before 1989 belongs to the ex-Yugoslavia period;
- there are not official data related to some specific issues especially for the period 1991-1998;
- basically no agricultural subsidies have been given for the period 1991-1998/1999;
- the data from 1996/7 till 2006 are in many cases estimations. In the case of agricultural subsidies there was basically no strategy and the subsidy system was recreated every year;
- regarding many issues there are only estimations;
- often there are no data on some aspects (i.e. consumption, stocks).

3. Land Management:

- fragmentation of the farm structure;
- according to the world standards, BiH approaches the minimum of arable area per capita which is 0.17 hectares. In the Canton Tuzla even this minimum could not be maintained and the average arable area per capita 0.08 – 0.10 hectares. The main problem of the sector are the unploughed ploughfields which, in BiH, total some 400.000 hectares (World Bank, 2004).
- an EC Feasibility Study contains an estimate that 50% of arable land in FBiH and 30% of arable land in RS is not under cultivation. In addition, the trend of further shrinkage of the tilled land is noted. Various forms of permanent or temporary damage to land and soil occur continuously. The most endangered categories of land are the highest-quality categories (I, II and III category) which comprise only 15 percent of the total land area. Almost all infrastructure is located on the highest-quality land. The estimate is that 3000 – 5000 hectares of land are permanently lost every year, in various ways. The current modes of exploitation gradually degrade the land into a lower category.¹³ There is around 10,000 hectares of land damaged by or mining, and only 1000 hectares, or 10 percent, has been recultivated (World Bank, 2004).

4. Subsistence Farming:

- a still high share of the production is not sold on the market and it is produced by small farms;
- small farmers produce mainly for self consumption or for selling in farmers markets which are more profitable considering their scale of production.

5. The agricultural support system:

- the subsidy system is “dual”: there are two subsidy systems with different measures and a different share of the national budget allocated to the agricultural sector.
- agricultural strategies have a short term perspective: the strategic productions that would receive a long-term investment have not yet been defined at BiH level;
- the total budget allocated to the agricultural sector is particularly low: budget allocations for subsidies to BiH agricultural production were, for instance, around 3% of the consolidated budget in 2006;
- funds have been channeled for years into certain productions on the basis of ad hoc decisions of the entity governments, because there were neither laws nor programs defining long-term approaches to this problem;
- the subsidy system was recreated every year depriving producers from the opportunity to elaborate long-term production plans;
- weak credit system: in general, adequate loans for the development of primary agricultural production are not accessible to farmers, associations and entrepreneurs, which is why the technical and technological transformation of agriculture into a branch which face foreign competition failed to occur. Supplying credit to agriculture is a high-risk business for the domestic banking sector, partly owing to poor historical repayment rate and the fact that considerable donor funds were channeled into the revitalization and strengthening of the sector, but the results have not met expectations.

Overall, especially taking into consideration the complexity of the BiH environment, this research work do not aim to be exhaustive. However the methodological approach and the survey in particular the survey that have been used are considered relevant according to the context of the analysis. In the case of RS additional and updated field information are a basic analytical resource considering the overall lack of reliable and updated data.

2 Literature Review

According to the most common approaches a literature review should be composed by a research phase, in which an issue and the main theories behind that issue are explored, and by a review/study phase in which the main arguments and theories are identified and discussed.

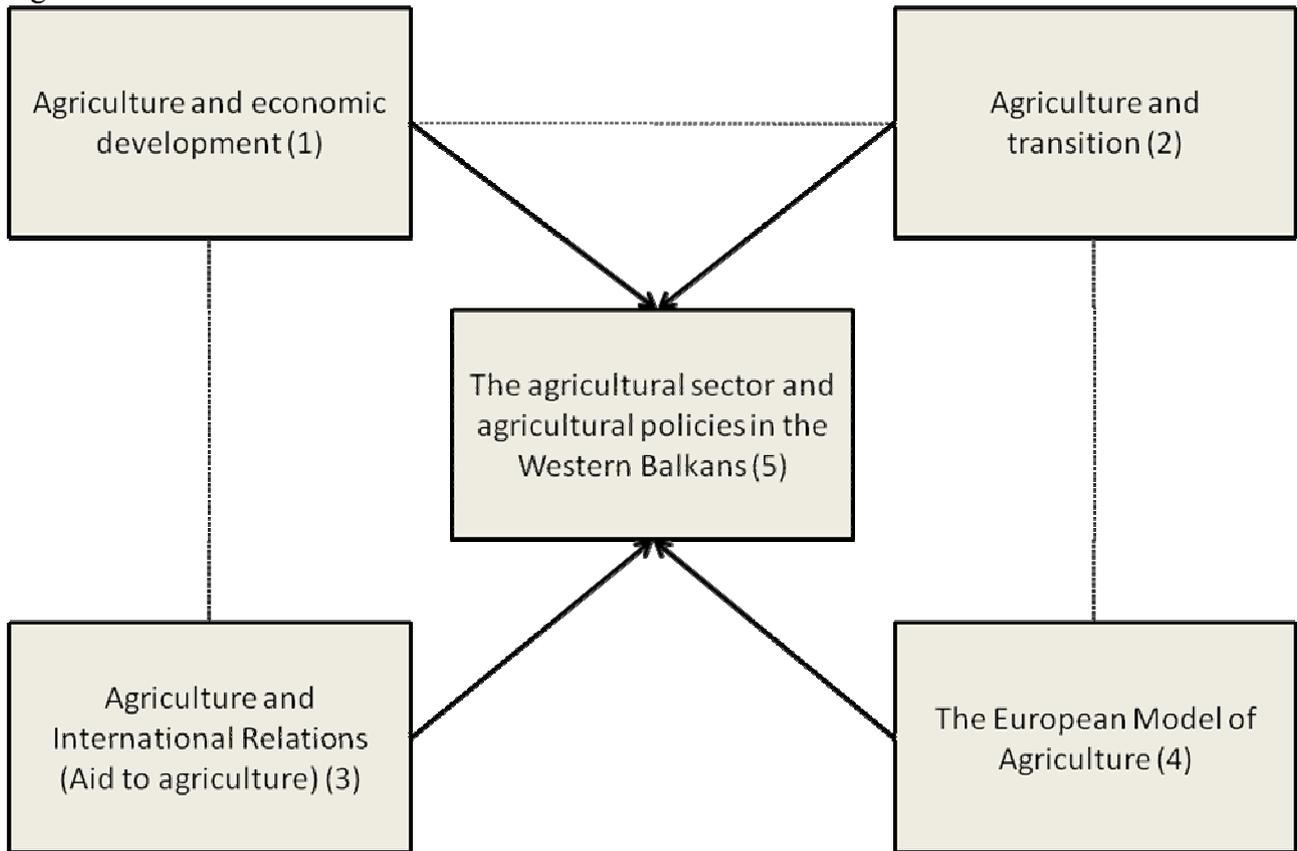
As far as this literature review is regarded it is relevant to emphasize that this study has covered almost all the 4 years spent on this PhD:

- in the early stages the research has been more focus on the role of foreign aid and International Organization;
- then has been moved on the Common Agricultural Policy with a particular attention on the Enlargement process;
- and finally in the last period the research focus has been moved on transition countries and in particular on the agricultural sector and related policies of the Western Balkans.

This literature review is aimed to emphasize on the one hand some of the main factors that characterize the agricultural sector in the Western Balkans and on the other hand some of the main elements of the WBs agricultural sector itself :

1. the role of agriculture in the overall development process and the implications for society and environment;
2. the main features of agriculture in transition countries with a particular focus on the Yugoslavian specificity;
3. the role of foreign aid and International Organizations in the development process with particular reference to the agricultural sector;
4. the role of the Common Agricultural Policy and of the “European model of agriculture” in the agricultural development of Western Balkans;
5. the main features of the agricultural sector and agricultural policies in the WBs.

Figure 2.1. Literature review rationale



Source: author's elaboration

2.1 Agriculture and economic development

2.1.1 Agriculture and economic development (from backwardness to multifunctionality)

It has been acknowledged that agriculture has played a key role in development of the current industrialized countries. It has also been noted that the progress of agriculture in developing and transition countries is a necessary basis for their economic and social development.

Developing (DCs) and transition countries (TCs) are characterized by a high share of rural population, a high share of agricultural population (people engaged in the agricultural sector), and by a GDP largely dependent on the agricultural sector (see Table 3.1).

So (in DCs and TCs) the increasing of the productivity and the technological progress should guarantee the creation of that surplus which will be transferred to the other sectors and a “migration” of labor force from the traditional sector (agriculture) to the modern sector (industry)

Table 2.1. The agricultural sector in selected countries

Country	Population	Rural population (%)	Agricultural population (%)	Agriculture on GDP (%)	Agricultural area (as % of the total area)
Albania	3.100.000	56	58	24,7	40,9
Bosnia Herzegovina	4.161.000	55	8	11,9	42
Croatia	4.437.460	36	8.2	10	56,1
Greece	10.977.000	39	12	6,6	65
Italy	57.346.000	32	4	2,6	51
Macedonia	2.036.376	41		13	49
Montenegro	601.022	40		8	
Serbia	7.439.000	48		13	
Spain	41.128.000	23	6%	3,5	60

Source: International Labour Organization; SOFA 2006, Food and Agriculture Organization; World Development Indicators 2006.

The contribution given from agriculture to development can be considered essential for several reasons:

- agriculture is an important economic activity itself;
- agriculture is a fundamental factor for industry development;
- a higher productivity could lead to relevant improvement in the living condition of rural population, who work or is engaged within the area;
- a higher level of food production can allow the creation of that surplus that can be used to feed those in the non-agricultural sectors of society;
- agriculture is a key element for food security;

- agriculture is a source of livelihoods for an estimated 86 percent of rural people and provides jobs for 1.3 billion smallholders and landless workers¹¹;
- agriculture is a key element for environmental protection and cultural heritage preservation.

Today is generally recognized that agriculture played a key role in development process of the current industrialized countries ensuring that condition that led to the development of other economical (and social) sectors. But in the past (40s and 50s) agriculture as often been related to the idea of economic underdevelopment and social backwardness: the agricultural sector has often been connected with very large families, with subsistence production systems and with actors (farmers/household) who have not been considered economically rationale. The preoccupation with the limits of traditional and subsistence agriculture that was so characteristic of structuralists and dependency literature led to a neglect of agriculture in general¹². In this frame one theory that had a significant impact on economic policy was that of “balanced growth” articulated by Rosentain Rodan (1943) and Nurske (1952): they predicted the rapid growth in developing economies would not be achieved through increased exports of primary commodities, and argued that development strategies should place greater emphasis on industrialization¹³. Again Prebish (1950) has underlined the declining terms of trade for traditional (agricultural) products¹⁴ and Hirschman (1958) has stressed that “modern” economic activities had diminished any apparent rationale for actively investing in the modernization of agriculture itself¹⁵.

Moreover, summarizing the main factors why the agricultural sector has been neglected as a source of growth C. Timmer (2002) states that:

“It is easy to see why the agricultural sector itself was neglected as a source of growth in early strategies of economic development. The historical records show that it always declines in relative importance in growing economies. It is the home of traditional people, ways and living standards, - the antithesis of what nation builders in developing countries in the 1950s and 1960s envisioned for their societies. Moreover agriculture was thought to provide the only source of productivity that could be tapped quickly to fuel the drive for modernization, implicitly a drive that took place in the cities and factories. Surplus labour, surplus savings, and surplus expenditures to buy the products of urban industry, and even surplus foreign exchange to buy the machines to make them, could be had from an uncomplaining agricultural sector. Nothing more was needed to generate these

¹¹ The International Bank for Reconstruction and Development / The World Bank, World Bank Development Report 2008: Agriculture for Development, The World Bank, Washington DC, 2007.

¹² M. Schiff, A. Valdes, 2002.

¹³ Ibidem.

¹⁴ R. Prebish, 1950.

¹⁵ A.O. Hirschman, 1958.

resources than the promise of jobs in the cities and a shared nationalistic pride in the growing power of the state.”¹⁶

2.2.2 Lewis, a dual economic structure: traditional versus modern sector

Between the 50' and the 60' the debate in the field of development economics has been strongly characterized by a focus on the empirical relevance of labour surplus. Nurske (1953) emphasized that if the marginal productivity of labor is zero, in that case the workers could be moved from the agricultural sector to be employed in the creation of capital without any loss for the aggregate production. However the most important contribution to the debate on labor surplus is the Dual Sector Model (or Lewis Model) presented by Arthur Lewis in an article written in 1954 and entitled "Economic Development with Unlimited Supplies of Labor". The Dual Sector Model is a theory of development in which surplus labor from traditional agricultural sector is transferred to the modern industrial sector whose growth over time absorbs the surplus labor, promotes industrialization and stimulates sustained development.

The starting point of Lewis' reflections is that those growth model which are based on one single economic sector (as the Harrod-Domar model¹⁷) are not appropriate for developing and transition countries since those countries often present a dual economic structure¹⁸.

Lewis expressed that this dualism is characterized by the crucial distinction between the traditional sector (agriculture, but also handcraft) and the more modern sectors (industry).

Following Lewis the traditional sector can be distinguished from the modern sector because of the following characteristics¹⁹:

- small production units;
- subsistence and semisubsistence production systems which are not oriented to the market and which are often risk adverse;
- simple technologies;
- two basic inputs: work and land.

Overall his notion of dualism, especially that focused on the labor market dimension, rural and urban, continues to offer a theoretically valid, empirically relevant and practically useful framework for dealing with some fundamental real world issues of development.

¹⁶ C.P. Timmer, 2002, p.1511.

¹⁷ The Harrod-Domar model is used in development economics to explain an economy's growth rate in terms of the level of saving and productivity of capital. It suggests that there is no natural reason for an economy to have balanced growth.

¹⁸ W. A. Lewis, 1954.

¹⁹ Ibidem.

Table 2.2. Main scientific theories and “models” that has characterized agricultural development

	Year	Elements / main theories
R. Prebish	1950	Declining terms of trade for traditional products.
A. Lewis	1954	Developing and transition countries present a dual economic structure: traditional versus modern sector.
A.O. Hirschman	1958	“Modern” economic activities diminished any apparent rationale for actively investing in the modernization of agriculture itself.
Rostow	1962	Economic development stages.
B.F. Johnston, J.W. Mellor	1961	The role of agriculture in economic development.
T.W. Schultz	1953, 1964	Transforming traditional agriculture: the technological change.
Green Revolution	1965	Adoption of high-yielding varieties; improvement of irrigation systems; use of fertilizers.
Club of Rome (The limits of growth)	1972	Scarcity of resources: if the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years.
Brundtland Report	1987	Sustainable development.
FAO	1991	SARD: sustainable agriculture and rural development.

Source: elaboration of the author

2.2.3 Rostow, the stages of economic growth

The complexity of the interaction between agriculture and development has been recognized also by economics historian. Rostow (1960), in the frame of his theory on economic development stages, included the rising of the agricultural production among the preconditions for the “take off”²⁰.

Rostow emphasized that any advanced (developed) country (society) should pass through 5 phases: the traditional society, the preconditions for take-off, the take-off, the drive to maturity, and the age of high mass-consumption. Among these five phases the first and the second can be considered the as the real development and are still strongly linked with the agricultural sector:

- the first phase should be characterized from the creation of the necessary prerequisites (egg. infrastructures). Generally speaking, these societies, because of the limitation on productivity, had to devote a very high proportion of their resources to agriculture.
- the second phase should be characterized from the beginning of the development process with an increasing of the weight of savings on national income and especially with an acceleration of the growth rate (take off) able create a strong discontinuity with a situation of stagnation. This process should be leaded by the growth of one or more “driving” sectors.

2.2.4 Johnston and Mellor, agriculture in the economic development

B.F. Johnston and J.W. Mellor (1961) have drawn attention to five main contributions of agriculture to economic development²¹:

²⁰ Rostow, 1960.

²¹ B.F. Jhonston, J.W. Mellor, 1961.

- it guarantees food and raw materials for the other sectors;
- it has a strong influence on the “balance of trade” especially if the country has a comparative advantage in the production of certain agricultural goods;
- because of its dimensions the agricultural sector is potentially a relevant source for the demand for other economic sectors (e.g. agricultural machinery; fertilizers);
- the labor force of the modern sector came from the traditional sector;
- it usually produces a surplus which can be transferred to other sectors.

Johnston and Mellor have emphasized the need for a “balanced growth” in the sense of simultaneous efforts to promote agricultural and industrial development and in their vision they consider the five contributions as equally important.

As underlined again by Timmer (2002) this link between a country’s agriculture and its industry²² has been stressed also by Nichols (1963), Schultz (1953, 1964) and Jorgenson (1961).

2.2.5 Schultz, the technological change

In his approach to the analysis of the link between agriculture and industry Schultz (1953, 1964) emphasized that to increase the contribution of agriculture in the overall economic development the labor productivity of the sector has to be improved. He argued that the low level of farm incomes in developing countries is not because peasants are irrational or lack knowledge on how to farm efficiently with the resources at their disposal, but because of the lack of technology that would generate higher streams of income²³.

Starting from the growth model elaborated by R. Solow (1956) Schultz proposed an important analysis of the main constraints that characterized the growth of agricultural production and highlighted some appropriate policies to overcome to these constraints.

The main constraints presented in Schultz’s analysis have been the following:

- the fact that many modern technologies are projected for large scale agricultural activities;
- the diffusion of new and more effective technologies could be slow because of the low level of education or because of the limited transport network which affect the movement of people and good and the information dissemination;
- adversity to change of farmers;
- adversity to risk of farmers;
- Other barriers depending on the institutional, physical, geographical environment.

²² C. Timmer, 2002, p.1513.

²³ Ibidem.

On the policy side Schultz emphasized the complexity to organize the economy so that farm prices would be on the one hand flexible and free and on the other relatively stable²⁴. Moreover he admitted that many policy tools as farm price supports, marketing quotas, diversion operations, subsidized exports have been not satisfactory²⁵.

Moreover among Schultz's main recommendation there was also the relevance of the investments in research centers, the importance of education and the need to develop effective extension services and credit structures. In this frame it appears clear that a key role should be played by the local institutions and governments.

2.2.6 The Green Revolution

The United Nation Glossary of Environment Statistics define the green revolution as the increase in crop yields based on cultivation of high—response varieties of wheat, rice, maize and millet, and intensive use of fertilizers, pesticides, irrigation and machinery²⁶.

With the GR the rate of growth of many developing countries have been characterized by a strong acceleration. Among the main factors that lead to this acceleration and that characterized the GR the following has to be underlined:

- adoption of high-yielding varieties;
- improvement of irrigation systems;
- use of fertilizers.

On the production side the effects of the green revolution have been different depending on the different regions. In Asia the cereal production has been doubled between 1970 and 1995, while population increased by 60 percent. Instead of widespread famine, cereal and calorie availability per person increased by nearly 30 percent, and wheat and rice became cheaper²⁷. Latin America experienced significant gains as well, while the impact in Sub-Saharan Africa was much more modest due to lack of infrastructures, limited investments in irrigation and inappropriate pricing and marketing policies. On the economic and social side the Green Revolution led to sizable increases in returns to land, and hence raised farmers' incomes. Moreover, with greater income to spend, new needs for farm inputs, and milling and marketing services, farm families led a general increase in demand for goods and services. This stimulated the rural nonfarm economy, which in turn grew and generated significant new income and employment of its own²⁸.

²⁴ Schultz, 1953.

²⁵ Ibidem.

²⁶ United Nations, 1997.

²⁷ International Food Policy Research Institute, 2002.

²⁸ Ibidem.

Overall, the Green Revolution (GR) has had major productive, economic, social and ecological impacts, which have drawn not only intense praise but also intense criticism. The GR is sometimes mis-interpreted to apply to present times; in fact, many regions of the world peaked in food production in the period 1980 to 1995 and are presently in decline, since desertification and critical water supplies have become limiting factors in a number of world regions. So, besides the important results reached in term of productivity, it is important to highlight that the GR has been also intensively criticized on a socio-economic perspective and on an ecological perspective²⁹:

- a) the GR led to a growing income disparity since the high-yielding varieties have constant capacity, but they need also complementary input like irrigation systems and fertilizers. Who has been capable to afford investments in order to have access to these complementary inputs (the bigger producers) has been also the major beneficiary of the GR. So in same extent the GR has contributed to increase the gap between small and big producers.
- b) the GR has negative effects on the environment and on biodiversity:
 - in some areas environment have been damaged because of the large use of fertilizers;
 - irrigation projects have created significant problems of salinization, waterlogging, and lowering of water tables in certain areas;
 - the spread of Green Revolution agriculture affected both agricultural biodiversity and wild biodiversity.

Even if some of these criticisms are valid and have been or still need to be addressed, it is also true that the GR have had an important impact on hunger and poverty reduction especially in consideration of the population growth³⁰.

2.2.7 The Di Cocco model

Apart for the most known theories and models it is interesting to mention also the contribution of Enzo Di Cocco (1976) who had the aspiration to verify (1) the number of spurs which the agricultural population is subject due to the rise of individual income and the rise of the population, and (2) the factors that separate the prevalence of one (rise of the individual income) on the other (rise of the population). It is also relevant to underline that the model has a specific geographical and temporal reference (Italy from its Unification till 1980s), a specific dynamic contest (population and per capita income are rising), and a specific economic system (market economy). However a Di Cocco scholar (A. Segrè, 1995) has attempted to move from this theoretical elaboration that has emerged from the empirical analysis of the evolution of the Italian agriculture. Segrè has applied the

²⁹ P. B. R. Hazell, C. Ramasamy, 1991.

³⁰ International Food Policy Research Institute, 2002.

model in a different economic system (Albania between 1950 and 1993) in order to verify if the model is a solid interpretative tool also outside its original application contest.

So Di Cocco focused his interest on the analysis of the role of agriculture in the overall development process. In particular his research has been developed with the aim to find the causes of two tendencies:

- a. the decline in the number of agricultural workers;
- b. the decline of the share of the agricultural sector on the gross national product (GDP) in case of a society with a growing income per capita.

Between the 1960s and the 1980s Di Cocco designed a theoretical model (*Agriculture and society*) to analyze the economic role of agriculture in “societies characterized by economic growth”.

Di Cocco’s theory presents similarities but also many differences with the work of other development researchers, in some extent it is possible to emphasize that Di Cocco has overcome a mere economic approach anticipating some of the social issues that will be recalled through the human development paradigm³¹.

The Di Cocco model is characterized basically by three variables:

- a. Σ : which is the annual variation of the available income per capita. (This variable describes a wide number of elements that allow economic development (higher cultural and professional level of workers; creation and adoption of new technologies, saving ...).
- b. Δ : annual variation in the population (On the one hand this variable describes the algebraic sum of birth rate, mortality and migration and on the other hand describes other social issues as the level of the sanitary system...)
- c. Elasticity of the demand of agrofood products in function of the income per capita. This variable describes the behavior of consumer following the law of Engel.

Table 2.3. Di Cocco Model rationale

	Economic development theory	Di Cocco Model
Growth (of a country)	Only economic variables are taken into consideration (production, consume, income, employment)	Prevalence of demographic growth on per capita income growth
Development (of a country)	Also other variables (more than economic) are taken into account (social, cultural and political issues)	Prevalence of per capita income growth on demographic growth

Source: A. Segrè, 1995

³¹ The Humand Development Paradigm includes four main components: productivity; equity; sustainability; and empowerment (Human Development Report, 1995).

2.2.8 The limits of growth and its effects on agriculture

The adoption of high-yielding varieties and the use of fertilizers produced not only positive but also negative effects raising the awareness of negative externalities on the environment. Agriculture is in fact a major contributor to numerous environmental problems: nitrate and pesticide runoff impair drinking water quality and degrade habitat for aquatic organisms including streams; bacterial contamination from animal wastes impair drinking water quality and contaminates shellfish, odor from concentrated livestock facilities worsens the quality of life in nearby residential areas³².

The list of the negative externalities of agriculture on the environment is obviously much wider and it is extremely heterogeneous between and within regions, however it is clear that agriculture involves the extraction of renewable resources under naturally occurring conditions and that agricultural productivity has traditionally depended on the natural resource base of agriculture.

The increasing attention on the scarcity of resources and environmental concerns begin to characterize the international debate on development issues since the 1970s. In this frame the milestone could be considered the Report of the Club of Rome that has been published in 1972: *The Limits to Growth, A Report to The Club of Rome*³³, that focused its attention on the scarcity of resources and on the issues related to environmental sustainability.

Among the main conclusions of the Report the followings have to be highlighted:

1. *If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years. The most probable result will be a rather sudden and uncontrollable decline in both population and industrial capacity*³⁴.
2. *It is possible to alter these growth trends and to establish a condition of ecological and economic stability that is sustainable far into the future. The state of global equilibrium could be designed so that the basic material needs of each person on earth are satisfied and each person has an equal opportunity to realize his individual human potential*³⁵.

Following the Report of the Club of Rome many International Conferences and Scientific Meetings stressed the links among environmental, economical and social aspects of development until the formulation of the concept of Sustainable Development within the *Brundtland Report* (1987).

³² E. Lichtenberg, 2002.

³³ D. H. Meadows, D. L. Meadows, J. Randers, W. W. Behrens III, *The Limits to Growth, A Report to The Club of Rome*, 1972.

³⁴ Ibidem, p..

³⁵ Ibidem, p..

2.2.9 SARD: sustainable agriculture and rural development

This complex relationship between agriculture and the environment has led to the recognition that the preservation of the natural environment can be reached only through sustainable agriculture.

In general the term includes the protection of landscapes, habitats, and biodiversity, moreover reflects productive and social functions as well. Productive function means managing natural resources in a way which ensures that they are available in the future, and in this narrow sense sustainability reflects the economic self-interest of farmers. Social function regards the maintenance of the viability of rural communities and a balanced development of rural areas.

Following the debate generated by *The Limit to Growth* and by the *Brundtland Report* FAO increased its awareness on natural resources and dedicated further priority to activities associated with sustainable development also in view of the preparation of the UN 1992 Conference on Environment and Development. The main outcome of this attention has been the elaboration of the concept of Sustainable Agriculture and Rural Development (SARD) which was ratified by FAO's 160 governments in November 1991 and then in the Action Plan for Sustainable Development adopted within the Rio Conference in 1992: "Agenda 21".

The declination of the SARD concept was actually not so innovative within the FAO framework and it was in line with the FAO mission to promote agricultural development and fight hunger and poverty. In Agenda 21 the main objectives of the SARD are defined as follow: *to increase food production in a sustainable way and enhance food security. This will involve education initiatives, utilization of economic incentives and the development of appropriate and new technologies, thus ensuring stable supplies of nutritionally adequate food, access to those supplies by vulnerable groups, and production for markets; employment and income generation to alleviate poverty; and natural resource management and environmental protection*³⁶.

What was new about the SARD concept was that it attempted to address environmental, economic, social and technical dimensions of food production and rural development, together. It emphasized that the sustainability of agriculture cannot be achieved without ensuring, at the same time, the sustainable development of rural areas as a whole, including that of the non-farm sector. It affirmed the mutually supportive roles of agriculture and rural development as essential in the attainment of sustainability.

Apart for the FAO definition also other Institutions and Organization emphasized the need of a sustainable agriculture.

OECD defines sustainable agriculture as that agricultural production that is economically viable and that does not degrade the environment over the long run.

³⁶ *Promoting Sustainable Agriculture and Rural Development*. Agenda 21: Chapter 14.
<http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter14.htm>

The OECD notion emphasizes also that the *definitions differ as to the period over which sustainability is intended to be achieved; whether sustainability should relate only to localized effects on the environment or also to effects on the environment caused by the production of farm inputs; and whether the environment in this context should be defined only to include the physical environment (soil, water, plants and animals) or also the environment created by agriculture, such as landscape amenities*³⁷.

The integration of the environmental protection requirements can be noticed in the case of the European agricultural policy as well. The notion of sustainability has gained field mainly in the beginnings of the 1990s when environmental considerations have become a major concern of the Common Agricultural Policy (CAP).

The different policy reforms encouraging the organic sector, other environmentally-friendly farming methods, the introduction of the good-farming practices and the requirement for cross-compliance, all aimed at the creation of sustainable agriculture, which is economically and socially viable and maintains habitats, biodiversity and landscape.

In the interpretation of the Agriculture Directorate-General of the European Commission the three challenges of sustainability (economic, social, and ecological dimension) has been DECLINATE as it follows: the economic challenge of the agriculture sector means the strengthening the viability and competitiveness of the sector; social challenge concerns the improvement of living conditions and economic opportunities in rural areas, and finally the ecological challenge regards the promotion of good environmental practices as well as the provision of services connected to the maintenance of habitats, biodiversity, and landscape.

Moreover, sustainable agriculture has to take into account the concerns of consumers as well, particularly as far as food quality, safety, and traditional, thus organic production methods are regarded.

2.2.10 Agricultural versus rural development (agriculture for rural development)

The relationship among agriculture, agricultural policy and rural development is absolutely intense and deep, but also controversial and contradictory. Economic and sociologic scientific literature has defined the concept of rural development following different criteria. Within the European framework rural development has been defined as an appendix of the agricultural policies and the rural areas has been often analyzed using the territorial approach³⁸. Then, in an ideal evolution, rural development, also within the European academic and administrative word, has left its agricultural

³⁷ OECD, 2001a.

³⁸ Y. Leon, *L'analisi economica dello sviluppo rurale*.

character to discover its multifunctional vocation and its deep connection with local and territorial development.

The terms “rurality” and “rural” are apparently obvious. They recall a physical, social and cultural concept, which is the counterpart of “urban”. But in reality, an objective or unequivocal definition of rurality appears to be an impossible task due to the fact that “rural” embraces many meanings. The European Charter for Rural Areas, a report by the Parliamentary Assembly of the Council of Europe (1996), defines a rural area as “*a stretch of inland or coastal countryside, including small towns and villages, where the main part of the area is used for :*

1. *agriculture, forestry, aquaculture and fisheries,*
2. *economic and cultural activities of country-dwellers (crafts, industry, services, etc.),*
3. *non-urban recreation and leisure areas (or natural reserves),*
4. *other purposes, such as for housing.”*

Defining rural development means to overcome the concept that the agriculture is the only non urban element of a territory. It is essential to look the whole economies that are within a territory that is based not only on agriculture, but also on handcraft, small industrial laboratories, rural tourism, extracting activities, and recreational spaces.

The shift from agriculture to rural is the new vision of the rural space as area of socioeconomic interest in which the modernization of agriculture is based on the development of other economies upstream and downstream of agriculture, and sometimes with no link with the agriculture itself.

Overall, rural development is important to farmers, and cultural factors and an entrepreneurial spirit play an important role in realizing the potential of the agricultural sector in rural areas.

The definition of rural is also based on the meaning and classification of rural area. Rural areas can be further characterised according to various additional criteria stemming from different aspects of rurality – geographical, social, economic and cultural, resulting in different geographic coverage, with important policy implications. Different institutions identify different definitions emphasizing different characteristics.

The Eurostat approach is based on the degree of urbanisation. An algorithm was developed to classify every European region according to one of three classes: *densely populated zones* (these are groups of contiguous municipalities, each with a population density superior to 500 inhabitants/km², and a total population for the zone of at least 50,000 inhabitants); *intermediate zones* (these are groups of municipalities, each with a density superior to 100 inhabitants/km², not belonging to a densely populated zone. The zone’s total population must be at least 50,000 inhabitants, or it must be adjacent to a densely populated zone.); *sparsely populated zones* (these are groups of municipalities not classified as either densely populated or intermediate). Again the EU defines the

rural areas also according to their degree of integration with the national economy; so it can be possible to distinguished: *integrated rural areas* (close to relatively big urban centers, with a growing population, an employment basis in the secondary and tertiary sectors, but with farming still being a key use of land); *intermediate rural areas* (relatively distant from urban centers, with a varying mix of primary and secondary sectors; in many countries, larger scale farming operations are found in these areas); *remote rural areas* (with the lowest population densities, often the lowest incomes, and an older population which depends heavily on agricultural employment. These areas generally provide the least adequate basic services; isolating features are often topographic characteristics, like mountains, or their remoteness from transport networks).

Another methodology, which is today widely used in Europe, has been elaborated by the OECD. It is a rather simple definition of rural areas for the purpose of making international comparisons of rural conditions and trends, which has proved useful despite the great differences in rural problems, perspectives and policies at national level.

To facilitate analysis, regions are then grouped into three types:

- *predominantly rural regions*: over 50% of the population living in rural communities;
- *significantly rural regions*: 15 to 50% of the population living in rural communities;
- *predominantly urban regions*: less than 15% of the population living in rural communities.

Overall there is a growing emphasis on the importance of rural development, including in agricultural policy circles: in many countries agricultural policies and Ministries of Agriculture are still the main channels through which rural development policies are pursued, yet rural development policy objectives are much more wide-ranging than is the case with agricultural policies.

A rural development policy is frequently used to refer to a wide variety of government interventions³⁹; and it is not so uncommon the case in which rural policies overlap agricultural, environmental and regional policies creating a lack of clarity concerning which are undoubtedly rural development policy measures.

There are differences across countries in the importance and in the two-way linkages between agriculture and rural development, in particular depending on the contribution of the agricultural sector to GDP and employment, on the overall situation of rural areas, on policy measures.

Tab 2.4. A new paradigm for rural development policies

	Old approach	New approach
Objectives	Farm income, farm competitiveness	Competitiveness of rural areas, valorization of local assets

³⁹ OECD, 2006.

Key target sectors	Agriculture	Various sector of rural economy (rural tourism, SMEs, ICT)
Main tools	Subsidies	Investment
Key actors	National governments, farmers	All levels (supra-national; national; regional; local)

Source: OECD, 2006.

On the one hand rural development policies play a significant role in facilitating agricultural adjustment and enhancing factor mobility by stimulating employment opportunities in other non-agricultural sectors. Pluri-activity and part-time farming are considered to be a typical solution to adjustment, particularly in the context of policy reform⁴⁰.

On the other hand agriculture can be still considered as the backbone of rural development both in countries where the agricultural policies had a shift from market price support and output related measures to non commodity specific policies (is the case of the Common Agricultural Policy after the 2003 Reform, but also starting from Agenda 2000 in 1999) and in countries where agriculture still account for a high share of GDP and employment, especially in rural areas.

2.2.11 The multifunctional character of agriculture (behind the production of food and fibers)

The transformations of the past decades are the basis for a new role for agriculture and for the farm that today is not only involved in the “sole production” of agricultural output, but it is opened to non agricultural production that presents often the characteristics of externality or public goods (e.g. landscape maintenance)⁴¹. The public goods are that goods that are freely available for the society (absence of excludability) and for which the use of someone will not inhibit the use for others⁴², while the externalities exist whenever one individual's actions affect the well-being of another individual - whether for the better or for the worse - in ways that need not be paid for according to the existing definition of property rights in the society. Picard (1998) define a positive externality as a situation where the decision of consumption or production of an agent have a direct impact on the satisfaction (benefit) or on the profit (advantage) of other economic agents with no market evaluation and without that the economic agent will be reimbursed for this interaction.

Overall it could be possible to recognize a transition from a “specialized” to a multifunctional or pluriactive agriculture characterized by the production of new and different services for the society, as the landscape maintenance and the preservation of the local culture and traditions⁴³, and the

⁴⁰ Ibidem.

⁴¹ OECD, 2001a.

⁴² Velazquez, 2001.

⁴³ J-E. Beuret, 1997.

creation of new business opportunities⁴⁴. In this new system there is a shift from the agricultural to the rural enterprise⁴⁵, with a subsequent change of the “mission” towards the production of agricultural, but also non agricultural output⁴⁶.

At the theoretical level it is possible to define a positive and a normative approach through multifunctionality, one characterized by a more entrepreneurial vision, the other by a more political interpretation. In the positive approach the multifunctionality is considered as a characteristic of the production process and is linked with the different output (commercial goods, non commercial goods) produced or offered (services) by the enterprise. In the normative approach the multifunctionality is considered as a conceptualization of the different objectives and functions that the society recognize to agriculture. These functions could be the economic or productive one, traditional of the agricultural sector; the environmental one, that group together the positive and negative externalities produced by the agricultural activities; the social one, that group together social, economical, cultural and political issues linked with the agricultural and rural world.

Table 2.5. Non commodity output and externalities of agriculture

<p>Positive environmental externalities</p> <ul style="list-style-type: none"> - maintenance of open spaces; - landscape conservation; - less pressure on urban centers; - water management; - eolic erosion control; - soil conservation; - biodiversity conservation; 	<p>Food security</p> <ul style="list-style-type: none"> - increasing food supply; - better access to food; - hunger eradication; - increasing food quality and safety;
<p>Negative environmental externalities</p> <ul style="list-style-type: none"> - profusion captive odor; - use of pesticides and chemical fertilizes; - salinization of water logging; - soil erosion; - loss of biodiversity; - genetic pollution; - toxic gas emission; 	<p>Rural development</p> <ul style="list-style-type: none"> - increasing farmers income; - increasing/maintenance of rural employment; - safeguarding of rural community vitality; - creation of settlements in remote areas; - creation of recreational services: agritourism, health; centers, rehabilitation centers; - safeguarding of small enterprises; - safeguarding of farmers traditions; - cultural heritage protection.

Source: Velazquez 2001

Although the concept of multifunctionality has been conceived at the European level⁴⁷ it has rapidly assumed an international connotation that witnesses its relevance in the rural development policy framework. Moreover the multifunctionality is a basic concept not only in developed contest as the

⁴⁴ EC, General Directorate for Agriculture, 2003.

⁴⁵ A. Ciani, 2002.

⁴⁶ M. Guglielmi, 1995.

⁴⁷ With Agenda 2000 (1999) the Common Agricultural Policy became more oriented towards environmental protection, rural development and to the multifunctional role of agriculture.

European Community, but it is even more important for developing and transition countries where the diversification of activities is a traditional element for rural communities.

Within the EC frame the multifunctionality became a fundamental element of the Common Agricultural Policy with the 1999 reform (Agenda 2000) when it reaches the heart of the European Model of agriculture that is based on the following characteristics:

- An agriculture essentially based on enterprises that are owned by family of farmers or are managed by them and on cooperation, for example under the framework of agriculture cooperatives;
- An agriculture strongly oriented on the initiative and on the entrepreneurial capacity of the producers, and competitive also;
- An agriculture oriented on the principles of a sustainable production that means a conservation of natural resources and biodiversity and the abandon of methods of production that compromise the future;
- An agriculture that, beyond the production, carries out also different functions, for example the preservation of the landscape, areas of settlements, employment and environment, hence a multifunctional agriculture (European Commission 1999b)

The functions emphasized by the EU cover two wide areas: rural development and environment. In the frame of rural development the EU address specific policies to remote areas where there are relevant occupational problems and where the multifunctional agriculture can play an essential role to fight depopulation and to ensure the presence of economic activities. As far as the environment is regarded the EC recall that biodiversity and the rural landscape has been modified and shaped by human activities as recalled in the document of 1998 that refers to the “cultural landscape” as an association among the physical landscape, the cultural heritage and the agricultural activities that insist on a territory.

Apart for the EC another important definition of multifunctionality is give by the OECD states that multifunctionality and multifunctional agriculture are terms used to indicate generally that agriculture can produce various non-commodity outputs in addition to food. The working definition of multifunctionality used by the OECD associates multifunctionality with particular characteristics of the agricultural production process and its outputs: (i) the existence of multiple commodity and non-commodity outputs that are jointly produced by agriculture; and that (ii) some of the non-commodity outputs may exhibit the characteristics of externalities or public goods, such that markets for these goods function poorly or are non-existent.

2.2. Agriculture and Transition

2.2.1 Patterns of transition and the Yugoslavian way

Almost two decades have been passed since the beginning of the transition process from a centrally planned economy to a free market at the end of the 90s: in Europe most of the ex-socialist countries have completed the most significant phase of this transition and joined the EU in 2004. This process have been characterized by a fundamental transformation of the private as well as of the public sector and have lead to reach the main targets that Havrylyshyn and Wolf (1999) have underscored as the main aspects of transition⁴⁸:

- *liberalizing economic activity, prices, and market operations, along with reallocating resources to their most efficient use;*
- *developing indirect, market-oriented instruments for macroeconomic stabilization;*
- *achieving effective enterprise management and economic efficiency, usually through privatization;*
- *imposing hard budget constraints, which provides incentives to improve efficiency; and*
- *establishing an institutional and legal framework to secure property rights, the rule of law, and transparent market-entry regulations.*

However the transition is over for some sectors and in some countries, but it is still far to be completed in other sectors and in several countries. This is also linked with the pace and extent of reforms that have varied widely across the region depending on the one hand by the different starting points of the different countries, ranging from highly centralized systems, as in the Baltic States and Romania, to more market oriented systems, as in Poland and Yugoslavia, and on the other hand by the diverse geographical aspects and cultural, historical, linguistic and religious patterns⁴⁹.

These considerations are particularly significant in the case of ex-Yugoslavia that since the early 1950s turned away from the centralized socialist planning that was a specific feature of the Soviet economic system and developed a more specific model characterized by an higher degree of decentralization. Many authors (W. Friedmann, 1966; F. W. Neal, 1954 and 1960; G. Swain, 1992) agree that this decentralization found its basis on the one hand in the distinct national, historical and social tradition of the six republics (Croatia, Bosnia and Herzegovina, Macedonia, Montenegro, Slovenia and Serbia) that implied to balance central economic direction with concerns for regional needs and interest, and on the other hand with the desire to develop a distinctive national economic

⁴⁸ O. Havrylyshyn and T. Wolf, 1999.

⁴⁹ A. Segrè, 1994.

way to communism in contrast with the overcentralized planning bureaucracy of Soviet Union⁵⁰. Overall Tito's communism has been characterized by a significant tension towards economic and social reforms started during the 60s (in 1965 a radical economic reform was approved to liberalize prices and to facilitate the introduction of the market to stimulate internal competition⁵¹) and continued throughout the 70s and the 80s with a solid economic growth, a progressive opening of the economy to Western Europe and to the import of higher quality goods, a high degree of freedom for press, a relevant debate on democracy and democratic issues⁵², a vital private sector⁵³, a significant improvement in social services, and an elevated openness toward the movement of people (the Yugoslav passport was somehow border-opening since it was accepted without the need of a specific visa in a significant number of countries⁵⁴).

However, behind the diversity of the specific national situations several common inefficiencies lead different countries to face similar challenges during the transition period: to enhance macroeconomic stability, to increase competitiveness on domestic and export markets, to link production with the market, to accelerate agro-food restructuring and adjustment, to create sustainable off-farm employment, to improve general infrastructure, to establish effective and efficient institutions of governance, to establish a functioning land market.

2.2.4 Main features of the socialist agriculture

The transition from plan to market in the agricultural sector called upon a set of reforms both at the macro and micro level in order to overcome the major inefficiency and constraints characterizing socialist agriculture. According Lerman, Csaki and Feder (2002) on the macroeconomic level the reform called for the elimination of central controls, price liberalization and introduction of hard budget constraints while at the micro level it included a shift from collective to individual agriculture. The abolition of collective agriculture was naturally to be accompanied by privatization of land rights and other movable and immovable properties (i.e. livestock, machinery, farm buildings). Moreover Lerman, Csaki and Feder emphasize progress at the micro-level due to its potential impact on the agrarian rural population:

- individual responsibility would cure free riding, shirking and moral hazard that make collective organizations generally inefficient;
- smaller farm sizes would be more manageable and less wasteful;

⁵⁰ F. W. Neal, 1954.

⁵¹ F. Privitera, 1996.

⁵² F. Privitera, 1996.

⁵³

⁵⁴ D. Anastasijevic, 2006.

- property rights associated with private ownership of land would induce farmers to put a greater emphasis on production;
- a land market would facilitate the flow of land from less efficient to more efficient producers.

Table 2.6. Inherited features of socialist agriculture

Attribute	Shortcomings
Confused ownership of land	Private ownership without real property rights; dominant state and cooperative ownership
Collective organization of production	Inefficient due to free riding, moral hazard, lack of individual incentives
Large farms (2.000 ha, 500 workers)	Inefficient due to high monitoring costs, anonymity, lack of transparency
Lifetime employment policy for farm members	Inefficient due to inability to control costs by adjusting labor
Centrally prescribed production targets	Inefficient due to lack of consumer orientation, insensitivity to market signals
Soft budget constraints	Inefficient due to lack of profit orientation, reliance on subsidies

Source: Z. Lerman, 1999.

2.2.5 Plan vs market: strategies and decisions

Policy goals and strategies differed, and differ, significantly between market and planned economies. Market oriented farms are aimed to maximize profit by maximizing sales producing in response to customer demand and minimizing production costs. Related sectorial policies are coherent with these aims and describes sets of rules and laws to achieve specific objectives in the domestic agricultural product markets and overall to promote a sustainable governance of the sector also in compliance with international standards and agreements. Agricultural policy aims in market economies focus on improving farm productivity and competitiveness (EU, 1956; World Bank, 2005), stabilizing markets (EU, 1956), guarantee food security (EU, 1956; World Bank, 2005), reduce rural poverty and ensure fair standards of living for the farming population (EU, 1956; World Bank, 2005), ensure fair prices and high quality standards for consumers (EU, 1956; EU, 1999); manage and preserve the natural resource base, and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations (FAO, 1989).

Socialist collectives and state farms operated in a centrally planned environment where the objectives were identified by the central administration in coherence with the central plan. The highest priority was to meet the production targets with low regards for efficiency and profitability. Lerman, Csaki and Feder (2002) emphasize that collective farms focus on physical output, not sales:

- they have no cost constraints because they are committed to lifetime employment of their members;
- their inputs are push-delivered at non negotiable prices by state planning authorities;
- their capital investment are dictated by the production plan;
- their credit is supplied by the government with no regard for repayment capacity.

So farms were functioning under soft budget constraints with no regards for cost efficiency or profit accountability. Agricultural policies were based on high import tariffs, nontariff barriers and exports sales barriers. A so high protection level encouraged in many cases a strong food self-sufficiency through import substitution and higher domestic food production, but it has also aggravated food security problems due to higher consumer prices, lower long-term farm competitiveness, a larger tax burden on nonfarm taxpayers, the risk of high price fluctuations between good and bad grain harvests and the consequent necessity to use heavy administrative control measures (S. I. Zorya, 2005).

Table 2.7. Plan vs market

Centrally planned economy	Market economy
<i>Operating decisions at the farm level</i>	
Produce to meet centrally imposed targets	Produce in response to consumer demand
Cost-plus accounting	Institute cost controls
Labour force fixed: workers guaranteed lifetime employment	Adjust labour force to changing production volume/mix
Inputs push-delivered at state fixed prices	Seek best suppliers; control purchase quantity
Credit allocated centrally to cover deficits	Borrowing limited by risk of bankruptcy
Profit uncontrollable	Maximize profit by controlling sales and costs
<i>Goals of agricultural policy</i>	
Maximization of gross agricultural output	Improvement of agricultural productivity
Collective organization of production	Private firms
Lifetime employment for farm members	Reduction of the gap between farm and nonfarm incomes
Direct price interventions	Market stability
Food self-sufficiency	Food security at the household level
Rural development based on collective farms	Development of rural areas
Intensive use of natural resources	Sustainable management of natural resources

Source: author elaboration on Z. Lerman, C. Csaki and G. Feder, 2002 and S. I. Zorya, 2005

2.2.6 Liberalization of prices and markets

In the majority of transition countries governments supported agriculture by maintaining favorable terms of trade and an ad hoc system of differentiated producer prices with the effect of creating a (non) market dominated by artificial prices. The strong support guaranteed to food prices led to a high level of consumption compared to economies with a similar GDP per capita in other regions.

In fact the first packages of reform were generally aimed also to align of domestic prices with world prices; to eliminate government procurement (state orders); to substitute of quotas by tariffs⁵⁵.

According OECD (2001)⁵⁶ price policy reforms can be divided in three broad stages:

- in the first stage, the highly distorting system of administered pricing, production targets and the state monopoly on trade were quickly dismantled in all countries. Most of the transition economies initially adopted a policy of price and trade liberalization and limited intervention in agricultural markets;
- the second stage was characterized by the introduction and implementation of an array of "ad hoc" price and market support policies, usually on a commodity by commodity basis;
- the third stage began in the late 1990s for the 10 Central European Countries starting to consider their possible accession to EU and proposing the adoption and implementation of policies and policy instruments in agriculture similar to those used in the European Union.

Agricultural support fell sharply in all the transition countries at the beginning of the 90s reflecting the dramatic fall in budgetary support, the lowering of border protection and the implementation of tight macroeconomic policies. The trend changed starting from 1994-95 with the support starting to rise steadily⁵⁷. So in most transition countries liberalization implied price and subsidy cuts, because of the heavy consumer and producer subsidization, and in a significant number of countries the combination of the fall in the real price of output and the rise in the real price of inputs led to a crisis in the agricultural sector as the fall in output and productivity (i.e. yields and labour productivity) show.

2.2.7 Farm restructuring: decollectivization and private ownership

Generally land reform policy covers a wide range of social changes involving the access of people to land, the ownership structure of land, the size structure of land holdings, and legal or contractual forms of land tenure (F. Ellis, 1992). Pressures for land reform arise due to the growing disparity created by the structure of land ownership and by additional factors related to social changes: population growth, increased mobility, market development, income growth, changing forms of economic exchange or social interaction. According Ellis land reform is a mixture of political, social and economic objectives that are inextricably linked among themselves. Political objectives depend on the forces and pressures that have created the opportunity for a land reform to be considered; social objectives underpin the concept of "social justice"; and economics objectives are generally poverty reduction and agricultural output growth.

⁵⁵ J. R. Health, 2003.

⁵⁶ OECD, 2001.

⁵⁷ OECD, 2001.

The shift from a predominantly collective to a more individualized agriculture, and the connected farm restructuring and land reform process, include all these elements. In most of the socialist countries agriculture, following the idea to expropriate semi-feudal and large capitalist estates and to transform them in cooperatives, passed from small to large units after that communists went to power. The terms of reference were the large western European countries as England and Germany where farms were generally large but also significantly better equipped than usually backward peasants farms.

However land property issues differed significantly in socialist countries: all countries allowed private ownership of land by individuals (i.e. physical persons who are nationals of the country in question); some CEECs (Estonia, Lithuania, Hungary) prohibit land ownership by legal entities (i.e. cooperatives, corporations, and other private companies may own non-land assets, but must lease their land resources from individual land owners or the state); most countries prohibit ownership of agricultural land by foreign residents, or severely restrict the ownership rights of foreigners (mmm, 2004). The decollectivization process started from a situation in which (before the 90s) the 90% of the agricultural land of the CEECs were controlled by collective and state farms (E. Mathijs, J. F.M. Swinnen, 1999) that declined sharply during the first and the second decade of the transition process due to the large reorganization and restructuring of the sector. Moreover the abolition of state farms has been accompanied by the increasing importance of individual farms, the reduction of the relevance of cooperatives, and the creation of a new category of private corporate farms (E. Mathijs, J. F.M. Swinnen, 1999). Apart for policy choices the reorganization of the agricultural sector and the shift to individual holding have been driven by several element that had a decisive impact with significant country differences: education and age of the household members (i.e. in Romania younger people showed a stronger willingness to start individual farming while in Hungary there has been a positive trend among elder people - 50 years old and up -); experience in farming (but also previous experience in non-farming activities); access to capital, direct access to capital inputs, such as agricultural machinery, buildings, and livestock, had a positive impact on individual farming, but also access to capital in the form of alternative sources of income, such as pensions or wages, also positively affects individual farming; security of land (i.e. households will not invest in individual farming unless they feel secure that they can reap the results from their investments) (E. Mathijs, J. F.M. Swinnen, 1999).

Overall the average farm size after the decollectivization process is significantly lower than the one of former cooperatives and state farms.

The transformation process have been implements through the application of land restitution ranging from flexible forms (i.e. the transferrable value-denominated certificates in Hungary) to

rigid form (i.e. the of the original physical plots in Estonia). The restitution process presented significant difficulties and delays in the majority of the countries due to technical difficulties of identifying the claims, registering the privatized plots, and issuing titles to beneficiaries (E. Mathijs, J. F.M. Swinnen, 1999). Additional constrains have been represented by political indecisiveness and by the absence of former owners so that, in order to guarantee an effective use of the land, many countries had to set procedures to allow users to lease plots from the large pool of state-owned land. Many corporations took advantage of this option by leasing land from the state and many individuals used land that they had received through the restitution process although they had not a final title on the land.

The effects of these transformation process are still evident in most of the CEECs and in the Western Balkans were the structural deficiencies heavily affect the economic performances of the agricultural sector. A large number of farms have still significantly small dimension, are family owned and are more subsistence than market oriented. So it appears evident how this agricultural economies are still connected with a dual structure characterized by the presence of medium size market oriented farms as well as of small subsistence oriented farms.

Table 2.8. Farms per total UAA

	Farms total	> 5 ha	5 - 20 ha	20 - 50 ha	50 - 100 ha
1000					
EU27	14.478,60	10.348,90	2.613,78	824,69	691,23
EU25	9.687,83	5.966,98	2.243,11	805,67	672,07
EU15	5.843,05	3.191,43	1.376,69	657,52	617,41
Poland	2.476,47	1750,86	608,14	96,78	20,70
Czech Republic	42,25	22,39	9,09	4,37	6,41
Slovak Republic	68,49	61,66	3,12	1,11	2,61
Slovenia	77,17	45,84	28,59	2,43	0,31
Hungary	714,79	641,19	47,95	13,97	11,69

Source: author elaboration on Eurostat data

2.2.8 Productivity

Output growth has been historically accepted by economic literature as one of the most common indicators to measure the progress of the agricultural economy of a nation. However, according to Swinnen and Rozelle (2006) output growth could present several limits in measuring performances and the overall progress of the agricultural sector in the case of transition countries before the end of the reform period. Following these authors a major element affecting the reliability of output growth is the high level of price distortion that have characterized transition economies before the reform: with heavily subsidized inputs and outputs prices a successful reform could even lead to a reduction of domestic production⁵⁸.

⁵⁸ J.F.M. Swinnen, S. Rozelle, 2006.

A better and less distorted indicator is represented by productivity growth that suffers in a lesser extent of the distortive effect of other factors. In the economic literature it is widely recognized that rising productivity can help policy makers to achieve many of their economics goals as rising food and non-food agricultural production, contribute to income growth, modernizing the agricultural sector. Swinnen and Rozelle (2006) suggest to utilize a set of three productivity indicators: labour productivity (output per unit of labour used); yields (output per unit of land); total factor productivity (TFP).

The transition process had lead on the one hand to a significant reduction in the use agricultural labour in all the TEs (i.e. with a significant shift to industry and services) and in the other hand to emphasize the necessity to overcame to the structural constraints that keep at a low level the economic performances at the farm level (i.e. production techniques have been and are labour intensive).

The use of labour intense and low efficient techniques has been witnessed also by the low agricultural yields obtained by state farms and cooperatives: in this sense it is significant the difference of the yields between the state farms and the individual plots assigned to the agricultural workers. Yields decreased at the beginning of the transition period and increased at a significant rate in most of the CEECs from the second half of the 90s (A. Cungu, J. F. M. Swinnen, 2003; J. M. F. Swinnen, S. Rozelle, 2006) . A similar trend has been followed also by the TFP that according Macours and Swinnen (2000) declined during the first three years of transition and increased in the following years.

The significant growth in yields and TFP started with the second half of the 90s have led to a considerable improvement considering the initial situation, but it has been not enough to reach the Western European standards.

Table 2.9. Yields (T/ha) of the main crops Western vs Eastern Europe (2004)

	UE-15	Poland	Czech Republic	Slovak Republic	Slovenia	Hungary
Wheat	72,2	42,8	58,4	47,8	45,3	51,2
Durum wheat	30,3	:	:	49,4	:	44,8
Oat	51,5	27,8	52,9	38,3	31,4	27,6
Barley	50,4	35,2	49,7	41,3	39,0	42,7
Maize	91,9	56,9	61,3	58,3	27,1	70,0
Rice	66,8	:	:	:	:	34,0

Source: author elaboration from Eurostat

2.2.9 Trade

Prior to the beginning of the reforms foreign trade predominantly under central control and specifically under the rules established within the Council for Mutual Economic Assistance

(CMEA). Overall the trade policy of socialist countries relied more on explicit export restitutions and less on import control than did most of developing countries (K. Brooks, J. Nash, 2002). Limited foreign trade reforms had been implemented in the 1970s and 1980s in the CEECs: for instance, some big industrial firms enjoyed foreign trade rights, and foreign direct investments were allowed in some countries. But these reforms had a marginal impact on the CEECs foreign trade. However the Council for Mutual Economic Assistance (CMEA) was working through a system of exchange rates: Comecon countries had to look to world markets as a reference point for prices, but unlike agents acting in a market, prices tended to be stable over a period of years, rather than constantly fluctuating. With the end of CMEA trading arrangements in 1991 -together with the switch to world market prices and settlement in hard currencies, an acute shortage of foreign exchange in a number of countries, and the organizational and administrative crisis in the U.S.S.R.- resulted in a precipitous decline in trade among the former CMEA members in the first half of 1991. The contraction of trade, which was much more severe than originally expected, contributed to a large drop in output and employment in all of the former CMEA members of Eastern Europe. However as the state monopoly on foreign trade and foreign currencies was ended in 1990 or 1991, and as foreign trade corporations were dismantled, all firms and individuals could take part in export and import operations. The number of firms engaged in foreign trade increased. Private enterprises grew rapidly, especially in import activities. As large industrial entities were split up and new enterprises were created, the concentration of exports on a few exporters declined strongly. An important role in fostering trade reform and in creating new institutions of exchange in the CEECs has been played by Foreign Direct Investments (FDI). Beyond supply of capital, foreign firms have introduced a number of arrangements to encourage greater production and to overcome transition constraints. For example, food processors have negotiated contracts with banks and input suppliers to provide farms with inputs that enable them to deliver high quality products to their company. Trade policy has also been used actively to attract foreign capital since measures to protect the domestic market have been taken, frequently under the pressure of the foreign investors (EBRD, 1994; P. A. Messerlin, 1995).

In some Central European countries (Czech Republic, Hungary, Poland and Slovakia) trade liberalisation was accomplished in a record time (A. Sapir, 1995). Between 1989 and 1991, the trade monopoly was abolished, quantitative restrictions on imports sharply reduced or eliminated for most industrial products, and in contrast to what often occurs in the first stage of trade liberalisation process, the termination of quantitative restrictions was not associated with raising tariffs (L. Toth, 1992); tariff barriers were set at a low, or moderate level (IMF, 1994). The

protection of domestic markets relied on sharp devaluations of the national currencies, and to some extent on the differentiation of tariff rates according to the degree of processing (OECD, 1994).

The choice of a policy favouring rapid import liberalisation can be explained by several factors:

- as part of the overall liberalization policy aimed also to enhance competition from outside (A. Sapir, 1995);
- as the real comparative advantages of Central European economies were highly uncertain, it was thus less hazardous to let them emerge under market forces and competition (D. B. Audretsh, 1995);
- as a tool to stimulate the sectoral modernization (A. Sapir, 1995).

Thus both the domestic political situation and external pressures resulted in initial, rapid import liberalisation, despite the arguments that could have been put forward in favour of a more cautious approach and of some degree of protection. These arguments could be based on macroeconomic considerations (to increase fiscal revenue and to ensure foreign trade balance) as well as on microeconomic ones (to protect infant industries, to allow for a gradual phasing out of declining industries, and to give some time to the restructuring of potentially competitive firms). Nevertheless, pressures in favour of an increased protection began to emerge very soon after this initial radical liberalisation, and they led to reversals in trade policies (D. A. Messerlin, 1995; L. Toth, 1995; C. Csaba, 1994). This general trend was reinforced by the recession, which was much more severe than expected, by the rise in unemployment and in some cases by the deteriorating balance of payments (Poland in 1992; Hungary in 1995). The revival of pressure groups (domestic enterprises and joint ventures) has tended to strengthen this move. This has led the authorities to raise the level of tariffs, and to resort to different instruments of protection: border barriers (fees, quotas, quality controls) and non-border protection measures (discriminatory domestic taxes on imported goods, standards) (D. A. Messerlin, 1995). These reversals are probably an indirect effect of a too-rapid liberalization and are emphasized also by the tariff levels adopted by the different CEECs in the mid nineties and ranging from a low level, comparable to that of industrial countries, to relatively high levels, close to those of developing economies.

From the mid nineties trade policies started to be strongly influenced by international agreements and their process of opening to the world markets experienced a significant acceleration:

- several CEECs started to move towards the European membership. The European Agreements differed among countries, but generally granted some immediate preferential access to EU markets for designated products;
- the Central European Free Trade Agreement (CEFTA), a trade agreement between Non-EU countries in Central and South-Eastern Europe, was signed by Visegrád Group countries in

1992 and entered into force since July 1994. Although trade under the CEFTA agreement grew quickly (thought from a low base) the economic effects of regional trade agreements have been ambiguous and agricultural products were not fully incorporated into the CEFTA agreement. Today the Countries that joined EU in 2004 and 2007 left the CEFTA agreement which, between 2006 and 2007, has been extended to to cover the rest of the Balkan states (before 2006 only Croatia was a CEFTA member), which already had completed a matrix of bilateral free trade agreements in the framework of the Stability Pact for South Eastern Europe.

- starting from 1995 several Eastern European countries (i.e. Cyprus, Czech Republic, Hungary, Poland, Slovak Republic, Slovenia). Joining the WTO these countries accepted the Uruguay Round obligations to remove quantitative restrictions, to reduce tariffs and export subsidies, and to lower aggregate measures of support in agricultural products. However, WTO membership has not led to much reduction in tariff levels in agriculture. Like developing countries, transition countries had been granted with some preferential conditions (K. Brooks, J. Nash, 2002).

2.2.10 Agricultural support services

Under the socialist regime the individual sector was often supported by the local collective or cooperative enterprise, which were providing all the upstream and downstream services substituting the missing market channels. With the collapse of the regime the individual sector -both household plots and peasant farms- had to shift its business from farm enterprises and state-affiliated channels to private traders, wholesalers, and retail markets. A number of services had to be created in order to support the increasing number of small farms in marketing their products, renting machinery (usually too expensive to buy for a small farmer), having access to credit (often difficult due to the lack of collateral, and to high transaction costs for small loans). Z. Lerman (2004) identify the main groups of services:

- Service cooperatives and machinery pools: which is generally considered the standard solution for the problems of smallness in market economies. Both theory and world experience suggest that service cooperatives are established to correct for market failure, i.e., when private entrepreneurs are reluctant to enter into a particular area for various reasons (spatial dispersion, remoteness, narrow product requirements) (Z. Lerman, 2004) and as a result farmers are faced with missing services (D. W. Cobia, 1989). Service cooperatives cure the problems of smallness by endowing small individual farmers with the benefits of collective operational size; they assure access to supplies and markets for their

members; and achieve market power through size. Cooperative machinery pools relieve the individual farmer from the pressure of purchasing own equipment. Service cooperatives also achieve overall risk reduction through portfolio diversification effects (P. Zusman, 1988). To this general consideration an additional element has to be underscored: the use of the term “co-operative” in ex-socialist countries can create barriers to progress due to its link with the socialist past. Despite this resistance new forms of cooperation among individual farmers are emerging in transition countries. This is a voluntary cooperation, often informal and sporadic, that stands in a stark contrast to the all-pervasive mandatory cooperation of the socialist era.

- Access to credit. In principle, farms, like all business entities, need access to two types of credit: longterm credit to finance investments in fixed assets and short-term credit to finance working capital requirements (i.e., to bridge the temporary gap between production costs and sales receipts). Credit constraints have been severe for all farms. In addition to 'normal' imperfections associated with asymmetric and costly information in all agricultural credit markets (J. Stiglitz 1993) a series of specific transition-related problems have constrained the financing of agriculture in CEECs since 1989. These transition-specific problems have to do with the role of credit in the economy, the institutional reforms occurring within the financial system, the low profitability in agriculture, accumulated debts, high inflation, risk and uncertainty, and collateral problems (J. F. M. Swinnen, H. Gow, 1999). The rural finance situation is improving in some CEECs due primarily to two factors: (a) improved profitability in agriculture since 1995; and (b) the emergence of institutional innovations, such as credit cooperatives, leasing, and various forms of contracting between farms and the upstream and downstream sectors. Foreign direct investment (FDI) in upstream and downstream sectors has also contributed to solving credit and contract enforcement problems at the farm level. In some cases FDI has induced dramatic increases in productivity, as it simultaneously tends to solve problems of access to credit, information, management advice, and technology (H. Gow, J. F. M. Swinnen, 1998).
- Extension and education. Education, innovation and physical (any non-human asset made by humans) and human (the quantity of knowledge” that a population has and as the capability of the same population to use effectively that knowledge) capital in general are extremely important for successful operation of the farm, especially in the context of the thesis that individual farms should be encouraged to grow in the interest of commercialization. In the past, household plots received all their technical advice and extension services from the large team of agro-specialists in the local farm enterprise. This

mechanism was not function anymore after the collapse of the regime and partial solutions include establishment of private advisory services by former collective-farm specialists. A more comprehensive solution to instruction, technical advice, and extension services could be found again in local cooperative frameworks.

2.2.11 Subsistence farming

Transition to market economies in the CEECs and the Balkans has increased the practice of small-scale subsistence farming even if food production in private households has formed an important part of the total production even before transition. Consequently agriculture is often characterized by a dualistic structure of market-oriented commercial farms and much small-scale subsistence farming. An important part of the production and consumption of many food products is not marketed and this large share of subsistence makes agriculture performance unpredictable.

Although no standard definition of subsistence farming exists, it is generally associated with small holding size, family agricultural work as a part-time or supporting activity, lack of machinery, difficulties in purchasing inputs and marketing products (assuming that they generate a marketable surplus), and lack of add value to primary commodities (Z. Lerman, 2004).

Moreover subsistence production describes the production of the amount that is necessary to cover the nutritional needs of the farmer and his family, and which is consequently not for selling but for home-consumption.

So generally speaking, the term subsistence agriculture is used for farms that are consuming a fundamental part of their own net production in their household and therefore do not primarily produce for the market. The bigger the part of own-consumption is, the higher is the degree of subsistence. There is no common definition in literature to the question of the size of this part. According W. Doppler (1991) farm producing at least 90% of their own consumption are subsistence oriented, farms producing between 90% and 10% for their own consumption are semi-subsistence farms, and farms consuming less than 10% are market oriented.

Although a common definition is lacking, in agricultural economics literature the term subsistence agriculture has a predominantly negative connotation (R.E. Seavoy 2000, M. Brüntrup, F. Heidhues, 2002). Subsistence-oriented agriculture is said to lack efficiency of resource use for various reasons:

- the priority given to satisfy family needs and the lack of market orientation;
- lack of use of formal credit and external inputs are rarely used in subsistence production;
- technological backwardness;
- low responsiveness to policies and, therefore, is difficult to control and direct.

Subsistence farming defined in these terms reflects therefore both historical factors but equally rational responses to high levels of rural unemployment, low incomes and social security systems. Such social security transfers play an important part in agricultural household income and could easily account for more than half of total agricultural household income in some countries. Subsistence farming can therefore play an important role in overall family welfare and, equally, in absorbing labour where alternative sources of employment are scarce.

2.2.12 Collective farms beside agriculture

According agricultural economic literature collective farms performed important social and cultural roles, not only for their members, but in village life generally. Even where they were not the major local employer they still were an important part of village life, in some cases providing services such as housing and drainage for the village and establishing an important social, cultural and spiritual element of the life of the local community.

2.2.13 Farmers and peasants

Defining farmers and peasants has been a significant issue in the sociological and economical debate of the last 30 years. If the debate can be considered partially overcome considering Western Europe it is not the same for Central and South Eastern European Countries where the debate is still alive due to the considerable high number of small farms, the role of subsistence and semi-subsistence farming, the share of population engaged in the agricultural sector and the economic importance of agriculture.

Leaving aside the large agri-business sector a common definition of farmer would be a person who works the land either growing crops or breeding livestock or a combination of both, their products usually sold in a market or, in a subsistence economy, consumed by the family or pooled by the community. Again a farmer could be considered someone who spends most of his working time in agricultural activities or that earn the major part of his income from farming.

Looking these definitions several significant important element emerge: land ownership and income and market orientation are at the same time constituent elements and constraints in defining what farmers are. Considering land ownership official census data, cadastral records and land registry could be outdated, not existing or not reliable (i.e. it is the case of Bosnia Herzegovina where the most recent agricultural census date back 1991 and cadastral records are missing). Moreover, according A. Cartwright and N. Swain (2002) the following elements have made more difficult the identification of a shared definition of farmer:

- the cost of complying with all the legal requirements for land transactions has often led to the rise of an informal land leasing;
- part time or week end farmers are not registered as individual farmers;
- the difference between family association and individual holdings is sometimes difficult to determine.

Considering income and market orientation it has to be considered the role and reliability of statistics which is often low in transition countries and the fact that even income support do not help. In the case of smaller grants support for farming does take many form and recipients are often passive (i.e. farmers do not need to be registered to receive subsidies) while in the case of larger grants that are available for the investment in holdings or purchasing of machineries applicants should satisfy a series of condition and be more active.

There constraint are clearly take in consideration by the international agencies that work with statistical data as the Eurostat and the OECD. Part of the problem in defining the different types of agricultural activities is that while there is a “black zone” of peasant subsistence producers on the one hand and commercially family farms on the other, there is also a very large grey zone made up of, in the words of the European Commission, semisubsistence producers. A simply reversal of that label makes this same grey zone into semi-commercial producers (A. Cartwright, N. Swain, 2002). Additional elements in the definition of farmers can be taken from the peasant-farmer debate that has strong anthropological roots. Many authors (R. Redfield, 1956; A. L. Kroeber, 1948) underscore and base their definition on the one hand on the link between peasants and markets and towns and on the other hand on the role of their nature and culture in the overall society. It is also the case of T. Shanin (1987) who identify four dimension of peasantry:

- peasant farms are the basic multi-dimensional unit of social organization;
- land husbandry as the main means of livelihood;
- specific cultural patterns linked to the way of life of a small rural community;
- the domination of the peasantry from outsiders.

Moreover the nature of the relationship between the peasants and the external society have been a strongly debated element also by Marxists classical texts (Lenin, Kautsky) and A. Chayanov (*Peasant Farm Organization, 1925*) who emphasized the viability of peasant agriculture and its ability to survive. Chayanov posited a special economic behavior of peasant households that relied almost exclusively on the labor of family members: unlike the capitalist enterprise, the peasant family worked for a living, not for a profit. He envisioned the modernization of traditional small farming not as part of capitalist or socialist development, but as part of a peasant process of raising

the technical level of agricultural production through agricultural extension work and cooperative organization.

This sort of distinction and theoretical framework is central also in the writings of R. Redfield (1956) who calls peasants those whose agriculture is a livelihood and a way of life and not a business. In this vision those agriculturalists who are looking for reinvestment and business, on land as capital and not as a commodity, are farmers and not peasants. A more dynamic consideration is given by H. Friedmann (ddd) who emphasizes that both peasants and farmers are households economies, but peasants are not engaged in commodity production at all while farmers are simple commodity producers. They are simple commodity producers, not because the produced commodity are simple, but because they were are produced within a simple circuit of commodities (commodity – money – commodity) rather than the capitalist circuit of commodities (money – commodity – more money). Simple commodity producers are fully integrated into the capitalist economy and the circuit of commodities, but they behave rather differently because they are self-exploiters of their own labor rather than capitalist producers. Somehow peasants are defined negatively due to their resistance to commodisation and their refuge a production environment where factor of productions are immobile. Farmers have a more multidimensional relationship with land, machinery and markets: they produce (at list partially) for the market, they take out loans, they buy or rent machinery. So farmers are more or less connected with the market and are engaged in a complex business even is they are engaged in simple commodity production because of their reliance on family labour. In their review of the farm as a family business Errington and Gasson (1993) define family businesses as those in which:

- the principals are related by kinship or marriage;
- business ownership is usually combined with managerial control;
- family members provide capital to the business and do farm work;
- the family lives on the farm; and,
- control is passed from one generation to another within the same family.

Apart for these more theoretical consideration defining farmers can imply a number of practical constraints as the lack of a certain land ownership and the lack of reliability of statistics:

- in the majority of CEECs and Balkan Countries there was not a legislation covering land ownership, or there was an existing and well structured, but rarely enforced, regulatory framework, or there was the lack of an updated cadastre. These problems resulted in the uncertainty over the nature and scope of land ownership and property rights (A. Cartwright, N. Swain, 2002);

- statistics are characterized by two sets of problems. The first is their overall scarce reliability which has always been a characteristic of socialist countries before and, in a even higher extent, after system breakup. Moreover, apart for their reliability, statistics suffers for a significant lack of data especially considering the small structure characterizing subsistence and semisubsistence agriculture (A. Segrè, 1994). The second set of problems is related to the fact that international criteria and definitions and are often not set in order to take in consideration the significant share of agricultural production coming from small farms.

2.3 Foreign aid to agriculture

2.3.1 General trends and evolution

Over the last decade, the quantity and the quality of financial flows from developed to developing countries have changed significantly.

Regarding the quantity, between 1990 and 2000 ODA⁵⁹ fell steadily from 0,33 percent of donor country gross national product (GNP) to 0,22 percent. This decline had serious consequences on the Least Developed Countries (LCDs), which often remain highly dependent on ODA. In the 60s the Organization for Economic Cooperation and Development (OECD) fixed the “theoretical” contribution of developed countries for development and international cooperation at one (1) percent of the GNP. In 1992⁶⁰, after the Rio Conference, this “theoretical” contribution fell to 0,7 percent of the GNP. Since 1992 regardless of the fact that the real contribution has never reached the 0.7 percent⁶¹, the shares of ODA have had positive changes in particular areas of sustainable development, for example in freshwater management, social services such as health and education and environmental protection. ODA is now recovering from all time low levels and further increases are expected. However the ODA level for 2005 and 2006 has been particularly high due to the high flows that has been received from Iraq (22 billion US dollars in 2005 and almost 9 billion US dollars in 2006) mostly from US (28 billion US dollars in 2005 and 23.5 in 2006) and United Kingdom (almost 10 billion US dollars in 2005 and 12.5 in 2006).

Furthermore, over the past ten years with regards to the quality side, the aid system has extensively evolved. Foreign direct investment (FDI)⁶² and other private capital flows⁶³ have become significantly higher than ODA, even if over the past decade FDI have also suffered downsizing. In recent years, gross FDI flows into developing countries have been more than twice the level of aid flows. Moreover, the positive trend has been followed by the amount of FDI among developing

⁵⁹ The Development Assistance Committee define as Official Development Aid those flows to developing countries and multilateral institutions provided by official agencies, including state and local governments, or by their executive agencies, each transaction of which meets the following tests:

- a) Official Development Assistance is administered with the promotion of the economic development and welfare of developing countries as its main objective;
- b) Official Development Assistance is concessional in character and conveys a grant element of at least 25 percent (calculated at a rate of discount of 10 percent).

⁶⁰ United Nations *Conference on Environment and Development*, 3 – 14 June 1992, Rio de Janeiro, Brazil:
<http://www.un.org/geninfo/bp/enviro.html>.

⁶¹ In 2002 only few nations have met the Monterrey/Rio commitment (0.7 percent): Denmark, Luxemburg, Netherlands 0.81 percent, Norway 0.89 percent, Sweden 0.83 percent. The major donors, USA and Japan, have given respectively 0.13 percent and 0.23 percent. The average of the DAC members is 0.23 percent. (Data from DAC- Development Assistance Committee).

⁶² The World Bank defines FDI as net inflows of investment with the aim of acquiring a lasting management interest in a firm or enterprise.

⁶³ The World Bank defines other private capital flows as commercial bank lending, bonds, other private credit, non-debt flows and portfolio equity investments (excludes FDI).

countries themselves (south - south investment) that have had an important and positive impact on development.

Direct comparisons of ODA with FDI and the impact thus far of FDI to alleviate financial constraints across a larger group of developing countries, however, are not straightforward. This is explained, for instance, by the different national and sectorial distributions of the two (ODA and FDI). First, according to literature, ODA goes mainly to the poorest countries⁶⁴ while FDI is chiefly reallocated to the middle-income countries. Subsequently, even within the group of middle-income developing countries, FDI is heavily concentrated on a few dozens of nations, which possess natural resources, or are otherwise particularly attractive for investors. These observations are underpinned by the reality of the world's poorest continent, Africa, which continues to be overwhelmingly dependent on aid for its external finance. However, it should be noted that FDI did augment from previous very low levels of the 1990s.

Table 2.10. Official Development Assistance and Private Flows (US \$ Billions)

		2000	2001	2002	2003	2004	2005	2006
I. ODA	<i>DAC Donors</i>	53.7	52.4	58.2	69.0	79.4	107.1	104.4
	<i>Total Donors</i>	59.8	59.6	66.9	79.7	91.8	120.4	119.8
II. Other official flows	<i>DAC Donors</i>	-4.3	-1.6	0	-0.3	-5.6	1.4	-9.7
	<i>Total Donors</i>	-4.5	-1.4	1.1	0.8	-2.7	4.1	-7.0
III. Private flows	<i>DAC Donors</i>	77.8	51.4	5.6	46.5	75.2	179.6	194.8
	<i>Total Donors</i>	78.3	51.3	6.7	48.3	77.6	182.8	200.7
IV. Net private grants	<i>DAC Donors</i>	6.8	7.2	8.7	10.2	11.3	14.7	14.6
	<i>Total Donors</i>	6.9	7.3	8.8	10.3	11.4	14.9	14.8
Total Official and private flows (I+II+III+IV)	<i>DAC Donors</i>	134.2	109.5	72.6	125.5	160.4	302.8	304.1
	<i>Total Donors</i>	139.7	115.8	80.7	136.2	175.4	319.8	324.5

Source: author elaboration on DAC-OECD data

Moving onto the argument of aid for agriculture, first and foremost, in relation to the different connotation that could be given to the word agriculture, it is necessary to find a clear definition for aid to agriculture.

The Development Assistance Committee's statistical definition of aid to agriculture includes agricultural sector policy, planning and programmes, agricultural land and water resources, agricultural development and supply of inputs, crops and livestock production, agricultural services, agricultural education, training and research, as well as institution capacity building and advice. Even though forestry and fishery are identified as separate sectors, in statistical presentations they are often shown as part of aid to agriculture. The definition excludes rural development, which is

⁶⁴ OECD, 2003.

categorized as multi-sector aid and developmental food aid, classified as a sub-category of general programme assistance⁶⁵.

The sector code identifies “the specific area of the recipient’s economic or social structure that the transfer is intended to foster”. In DAC reporting, as well as in most donors’ internal reporting systems, each activity can be assigned only one sector code. For activities cutting across several sectors, either a multi-sector code or the code that corresponds to the largest component of the activity is used. It follows that⁶⁶:

- DAC statistics on aid to agriculture only relate to activities that have agriculture as their main purpose and fail to capture aid to agriculture delivered within multi-sector programmes;
- aid to agriculture through NGOs may also be excluded, due to the fact that this is not always sector coded in as much detail as project and programme aid⁶⁷.

Table 2.11. Aid to Agriculture Flows (Total DAC Countries)

	Agriculture, Forestry, Fishing	Agriculture (Excluding Forestry and fishing)	Food Aid (excluding relief food aid)
Year	<i>Million dollars</i>	<i>Million dollars</i>	<i>Million dollars</i>
1976	1 091	-	1 769
1978	2 271	-	1 040
1980	2 824	-	1 499
1983	3 026	-	563
1986	3 564	-	2 200
1989	4 020	-	1 642
1990	4 380	-	1 920
1992	4 391	-	1 790
1994	3 770	-	1 743
1996	4 738	3 337	771
1997	3 426	2 291	1 037
1998	3 101	2 422	1 140
1999	2 522	1 887	1 179
2000	2 295	1 566	1 244
2001	2 832	2 212	1 236
2002	2 343	1 894	1 311
2003	2 102	1 408	1 146
2004	2 534	2 078	1 149
2005	3 267	2 548	890
2006	2 794	2 225	939

Source: OECD data processing

Agriculture has followed the ODA declining trend passing from more than four (4) billion US dollars at the end of 1980s to less than three (3) billion US dollars of development assistance starting with the end of 1990s and continuing in all the first decade of the XXI century. In real terms, external assistance to agriculture has fallen significantly since the early 1980s. Data proves

⁶⁵ OECD, 2001.

⁶⁶ Ibid.

⁶⁷ Ibid.

that aid to agriculture declined from 1985, till the end of the 90s, at an annual average rate of seven (7) percent. As a result, in the early 1980s, aid to agriculture fell from a seventeen (17) percent share of the total ODA's flows to an eight (8) percent share at the end of the 1990s and to almost the three (3) percent of 2006. This decline is partly explained by general cuts in ODA, but donors' sectorial priorities have also switched from agriculture and other productive sectors towards social sectors. It is plausible that the exclusion of agriculture from the poverty reduction agenda of the 1990s explains some of the decline. On another perspective, the decline of external assistance to agriculture reflects the idea that appropriate policy frameworks will induce private investments and will sufficiently raise agricultural productivity⁶⁸.

2.3.2 Aid effectiveness: does aid work?

Apart for the quantity side the quality side has to be considered as well. In the last decades the analysis of aid effectiveness has had a major role in the development economic debate. On one side a balance on aid effectiveness has been necessary, on the other side some new analytical tools has been made available creating the opportunity to made some more comprehensive analysis . New indicators, statistical techniques, empirical models, has been elaborated and had been made more efficient also thank to a major availability of data. The analysis of the effect of aid on economic growth can be somehow dated back to the Harrod – Domar model (1946) and to the impact of the Marshall Plan that can probably considered as the first (and more efficient) foreign aid development plan. Starting from the Harrod Domar one a large number of studies and researches have been aimed to investigate aid effectiveness in developing countries, and, even if with some short time series constraints, in transition countries.

Aiming to outline a theoretical frame it is possible to identify three main generation of studies or models on aid effectiveness⁶⁹ which are classified on the basis of the variables which are analysed and on the statistical methodology that has been used:

- i. a “*first generation*” : aid, savings and growth;
- ii. a “*second generation*” : aid, investments and growth;
- iii. a “*third generation*” : aid, policies and growth.

- i. A “*first generation*” : aid, savings and growth.

As previously underlined the first analytical work on aid effectiveness can be considered the Harrod-Domar model even if it was not originally create for the purpose to measure foreign aid effectiveness. The core idea of this theory is that to support the growth is necessary to fill the

⁶⁸ E. Tollens, 1997, p.43.

⁶⁹ Hansen and Trapp, 2000

financial gap between savings and investments, stimulating these since there is a stable linear relationship between investments and GDP growth. The slogan of Harrod and Domar could be *give aid for investment for growth*⁷⁰, a formula that have fascinated and seduced for many years the economist of International Organization as World Bank and International Monetary Fund as well as Developing Countries Governments.

So the two pillars of the model are investments and savings that can be considered as key factors for the growth of “developed countries”, but not for “developing countries” where the GDP per capita is often so low to not to be assigned to savings, but it has to be used for instant consumption. A finality for which are probably used also foreign aid.

Other models that are considered as the starting point for analyzing the impact of foreign aid in a general way are the two gap models pioneered by Chenery and Bruno (1962) and Chenery and Strout (1966) and the works of Griffin (1970) e Weiskopf (1972) which even if could be considered as extremely simplistic have to be considered as important references for economic literature. Overall among the results of these studies a positive relation between aid and growth appears and the importance of the role of aid in promoting and supporting development is emphasized.

ii. A “*second generation*” : aid, investments and growth.

The second generation has as theoretical basis the Harrod Domar and the Solow Model (1956) that in opposition with the more pronounced Keynesian theories propose the growth not only as a function of capital, but mainly as a function of work and technology. These analysis emphasize the controversial relationship between aid and growth underlining as the impact of aid on savings and investments would be not so relevant. Some authors as Mosley (1995) and White (1992) highlight a paradox between the investigations leaded at the macroeconomical and microeconomical level. The macroeconomical analysis show how the impact of aid on growth would be almost insignificant, while the microeconomic feasibility study, leaded by bilateral and multilateral agencies, show interest rate rarely lower than ten (10) percent. This paradox could be explained by the use of different analytical procedures and by the complexity in the aggregation of the return of the single projects in the GDP calculation, and so in its growth.

iii. A “*third generation*” : aid, policies and growth.

The most recent empirical analysis have allowed to overcome some of the main limits of the previous models and theories through the usage of partially innovative tools and approaches:

⁷⁰ W. Easterly, 1998.

- A larger panel of countries and longer time series are considered so to increase the quantity and the quality of the data that has to be analysed;
- New statistical methodologies as the two-stages least squares have been used;
- New indexes to measure the economic policies, the institutional environment, alphabetization are introduced directly in the regression models;
- In some models aid and other variables are considered as endogenous;
- The aid-growth relationship is considered as non linear.

Among the most important models of this third generation has to be highlighted the works of Boone (1994), Burnside and Dollar (1997), Tsikata (1998), Durberry (1998), Lensink e Moressey (1999), Collier e Dollar (2001), Cungu e Swinnen (2003) and other works that even starting from similar methodological basis reach rather different results.

Boone find a positive, but statistical insignificant, relation between aid and growth. His consideration are based again upon the evidence that the resources received in developing countries are used for consumption and not for savings or investments. Tsikats moves on the same direction confirming the statistical insignificance of the impact of aid on growth, but emphasizes eventual positive effects if the macroeconomic environment would be particularly favorable to competitiveness and in stimulating private investments. Hansen and Trap emphasis instead that aid works even where there is not a positive macroeconomic framework since they have a positive effect on savings, investments and growth at the aggregate level. The main question that has been identified by the authors is related with the identification of a more effective (considering the actual strategies) typology of actions. Another interesting perspective has been highlighted by Lensink e Morrissey whom believe that aid are effective only if they are allocated in a stable way. Uncertainty conditions are mostly negative since they do not encourage investments and they do not allow aid to produce a positive effect on development. A stable situation in the donor-reipient relationship would allow to identify which fiscal and economic policies should be adopted to support foreign and national investments.

Among this second generation the most know model can be considered the Burnside and Dollar that support the evidence that the impact of aid depends on the quality of state institutions and policies. The interaction of aid and institutional quality has a robust positive relationship with growth that is strongest in instrumental variable regressions. There is no support for the competing hypothesis that aid has the same positive effect everywhere, however the authors also show that in the 1990s the allocation of aid to low-income countries favored those with better institutional quality. This "selectivity" is sensible if aid in fact is more productive in sound institutional and policy environments. The cross-country evidence on aid effectiveness is supported by other types of

information as well: case studies, project-level evidence, and opinion polls support the view that corrupt institutions and weak policies limit the impact of financial assistance for development⁷¹.

2.3.3 The case of food aid

Over the last fifty years, the debate on food aid has been intense, because of the effects that food aid has had on food habits and production in developing countries, and as for the fact that it may be used as a tool to facilitate export surpluses and capture new markets⁷².

Controversy over food aid also arises among some International Organizations. FAO identified Early Warning Systems as the main tool to achieve food security; therein choosing a different strategy from WFP, and by considering food aid to be a good instrument may for emergencies, but not for development. Therefore, food aid is no longer a core activity for FAO, whereas it is still the main tool used by WFP to fight hunger.

Food aid, particularly cereal food aid, has been characterized by relatively large fluctuation in recent years, despite the fact that it has declined overall in relation to the level of the late 1980s and early 1990s⁷³.

The most frequent criticism of food aid is that it can produce a disincentive effect on local production by driving down domestic prices. This disincentive effect could have a heavy impact on local food security because it may led the local farmers to abandon the agricultural production because of difficulties in finding a market for their products. Moreover food aid could create dependency and this may led local government to not to invest in the agricultural sector, relaying on aid or imports rather than supporting local agricultural development. It may also introduce to new food habits and a taste for a particular food that may be not produced locally. Another reason of the criticism on food aid is that they may be considered as a form of dumping. A large number of researchers, international experts and NGOs have described food aid as a tool used from certain developed countries to avoid the problem of agricultural surpluses as in the case of the European Common Agricultural Policy during the 80s and the 90s. At last a new issue could be the use of food aid as an important back-door entry point for the introduction of genetically modified organism (GMOs) into developing countries⁷⁴. This issue have broken out in Africa during the

⁷¹ C. Burnside, D.Dollar, 2004.

⁷² “Food aid have helped create mayor markets for agricultural goods, created new markets for American industrial exports and meant hundreds of thousands of jobs for Americans”, Greenpeace, 2002.

⁷³ Food and Agriculture Organization of the United Nations, 2004.

⁷⁴ The purpose of this paper is not to go inside the debate on GMOs. Regarding this argument it is important to refer to The State of Food and Agriculture 2004 edited by the Food and Agriculture Organization However, in absence of a clear international consensus on the evidence that GM foods are safe, and in absence of a specific international law, it may be considered unfair to use food aid as a “tool to export” GM food. This could be particularly relevant in countries that are heavily dependent on food aid.

2001/2002 food crisis⁷⁵ in Southern Africa and in 2004 after the restriction on GM food aid introduced by Angola and Sudan. In 2001 Zambia imposed a ban on the acceptance of food aid⁷⁶, and several other countries imposed various restrictions. In 2004 Angola has refused to accept 19000 tonnes of non-milled genetically modified maize offered as food aid by the United States⁷⁷. Officially this decision was undertaken by the government of the southern African state because of the will to protect the genetic diversity of Angola's maize plant.

Another relevant factor that have to be considered is targeting. However targeting, of which timing of deliveries is an important subfactor, is more a “bond” than a negative effect. It is important to take this issue in consideration because of the essential role covered by food distribution. Food is a critical resource; the beneficiaries of food aid are undernourished people; reaching beneficiaries who would otherwise suffer undernutrition, in a timely manner, and in an appropriate form is especially important for the effectiveness of food transfer⁷⁸; improving the targeting of food aid, it could improve the effectiveness of food aid. Some empirical⁷⁹ as well as descriptive researches have explored this issue showing how important targeting is and how common targeting errors, of inclusion⁸⁰ (providing aid to the non – needy) or exclusion⁸¹ (failure to reach the needy), are.

2.3.4 Food aid effects: empirical evaluations⁸²

Although literature on food aid have heavily stressed the disincentive effect of food aid, most empirical studies have failed to find significant evidence on this disincentive effects both at the micro and macro level. Another important element to be underlined is as most studies focus on “rural Africa” and in particular on Ethiopia (Sharp⁸³, 1997; Clay, Molla, Habtewold⁸⁴, 1999; Yamano, Jayne, Strass⁸⁵, 2000;) one of the major food aid recipient countries over the past three decades. Moreover it is important to try to take in consideration researches on “targeting issue” as well as researches on the food aid effects on local price levels.

⁷⁵ World Food Programme, 2002.

⁷⁶ R. Carroll, 2002.

⁷⁷ R. Carroll, 2004.

⁷⁸ C. B. Barrett, 2002.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² This section widely benefit from the work of C. B. Barrett, *Food Aid Effectiveness: “It’s The Targeting, Stupid!”*, and on the work of T. Yamano, T. Jayne and J. Strauss, *Does Food Aid Affect Crop Marketing ? Evidence from Rural Ethiopia*.

⁸³ K. Sharp, 1997.

⁸⁴ D. Clay, D. Molla, D. Habtewold, August 1999.

⁸⁵ T. Yamano, T. Jayne, J. Strass, 2000.

On the targeting side there are many studies that suggest how improving targeting can resolve many problems related with food aid. Even if no transfer program can target perfectly, it is possible to reduce errors of inclusion and errors of exclusion.

On the macro level several studies have shown how food aid effectiveness depends to a considerable degree on the design and implementation of the programme, variables that are difficult to quantify and capture in more formal quantitative analysis. The empirical evidence (Merbis, Nubè⁸⁶, 2001; Barrett⁸⁷, 2001) shows that food aid allocation is modestly progressive at the macro level, food aid goes to those more in need. Food aid today is mainly directed toward low income countries and recipients average food aid inflows modestly increase as their per capita nonconcessional supplies from domestic production and commercial import fall. This progressivity is not necessarily fine tuned by years and country, sometimes just by region, which would be consistent with concerted response to cross border movement of displaced persons.

At the macro level one of the main object of food aid could be defined as the stabilization of food prices and availability, especially in emergencies situation and to respond to short term shocks. In a situation in which donors need to identify emerging need early and deliver the food quickly some of the main distortion and causes of food aid ineffectiveness could be (Barrett⁸⁸, 2002):

- the complex logistics of procuring and transporting food. This complex logistics cause long lags between the time of commitment and delivery. Edward, Benson and Clay (1996)⁸⁹ report lags of up to two years in flows from European Union;
- donors budget food aid on a monetary basis. Edward, Benson and Clay (1996) and Merbis and Nubè (2001) show how food aid flows generally covary negatively with international market prices and donor country food inventories. As a consequences food aid volumes are far more volatile than food production on trade volumes;
- inertia effects food aid flows. This is manifest in consistent findings that last year's food aid receipt volume proves the single best predictor of this year's food aid flows (Barrett, Mohapatra⁹⁰, Snyder 1999). Administrative inertia and chronic need lead to considerable momentum in food aid flows.

Often, as consequence of these various factors, food prices and availability stabilization fail to be accomplished.

At the micro level the most recent studies (Edward, Benson and Clay, 1999; and Sharp, 1997) have found that food aid flows as frequent as to the richest, such as to the most food secure districts and

⁸⁶ M. Merbis, M. Nubè, 2001.

⁸⁷ C. B. Barrett, 2001.

⁸⁸ Barrett, 2002.

⁸⁹ E. J. Clay, C. Benson, S. Dhiri, 1996.

⁹⁰ C. B. Barrett, S. Mohapatra, D. Snyder, 1999.

households, as it does to the poorest, such as to the most food insecure ones. Moreover frequent targeting errors at community and households level were recorded⁹¹.

The empirical record points to considerable targeting errors in food aid distribution at both the macro and the micro level.

Regarding food aid effects on local price levels, as underlined before, most of the studies have been focused on rural Ethiopia and Yamano, Jayne and Strass might be considered one of the most important theoretical model on this issue. Their model underscored the importance of food aid targeting to poor households to mitigate potential price effects in local markets. This theoretical model also suggest that the effects of food aid on households marketing behaviour may depend on the type of food aid programme. Receiving free food has stronger income effects that participation in food for work, and the effects of food for work will differ depending on the in-kind participation wage compared to households opportunity cost of labour. The main findings of this research underline that:

- targeting is important also in areas of absolute poverty. It is important to target food aid to households with a high propensity to consume additional food (the poor);
- different types of aid programs may have different effects on crop marketing behaviour;
- potential market effects of food aid occur through altering households' purchase behaviour not just sales behaviour.

Moreover Yamano, Jayne and Strass stress that on the one hand food aid may have negative long run effects by creating dependency and discouraging agricultural production (especially wheat production), on the other hand food aid programs may have also some positive effects as for example reducing transaction costs and stimulating crops sales through improved infrastructure built through food aid programs as food for work.

As appear in the previous considerations more studies, especially in different regions, are needed to establish a solid evidence of food aid effects and to have a more clear comprehension on how and in which situation food aid can have a positive impact on agricultural development and on food prices and availability stabilization.

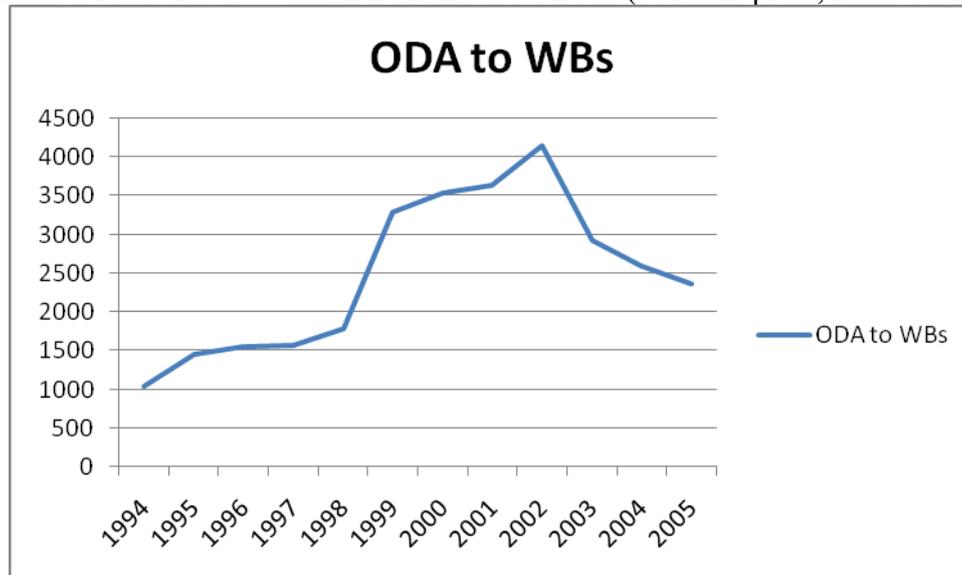
2.3.5 Foreign aid in the Western Balkans

During the last decade the international community has intensely provided development assistance to the Western Balkans to assist with reconstruction. As donors shift the focus of their activities from post-conflict stabilization and reconstruction to longerterm institutional development and support for accession to the EU, annual assistance started to follow a declining trend. Development

⁹¹ The most important targeting methods are *self-targeting* and *community based targeting*.

assistance to Western Balkans basically grown until 2002 when a pick of 4.14 billion US dollars have been reached. After 2002 development assistance started to follow a considerable declining trend especially after the criticism of UK that emphasized that a too consistent amount of EU foreign aid had been allocated to Western Balkans⁹².

Figure 2.2. Total ODA NET to Western Balkans 1994-2005 (constant price, 2005 USD millions)



Source: author elaboration on DAC-OECD data

This considerable flow of money has captured the attention of many international analysts whom have tried to specifically evaluate aid effectiveness. Most of this analysts agree in considering barely low the effectiveness of the development assistance to Western Balkans. First of all because of the high level of corruption within local institution⁹³, but also because of some specific features as the extremely complex administrative environment in the case of Bosnia and Herzegovina. Moreover also donors in the region has been driven by divergent and external agendas, in some cases based on specific political interests⁹⁴. For example, some donors' support is conditional on compliance with ICTY. The two key donors in the region – the European Community and the World Bank – have differing perspectives, focusing on EU integration and economic reform respectively. This can lead to them offering conflicting advice. The huge international non-governmental organization (NGO) presence in some parts of the region, particularly Kosovo and Bosnia and Herzegovina, also complicates the coordination challenge and places even greater

⁹² House of Lords, 2002.

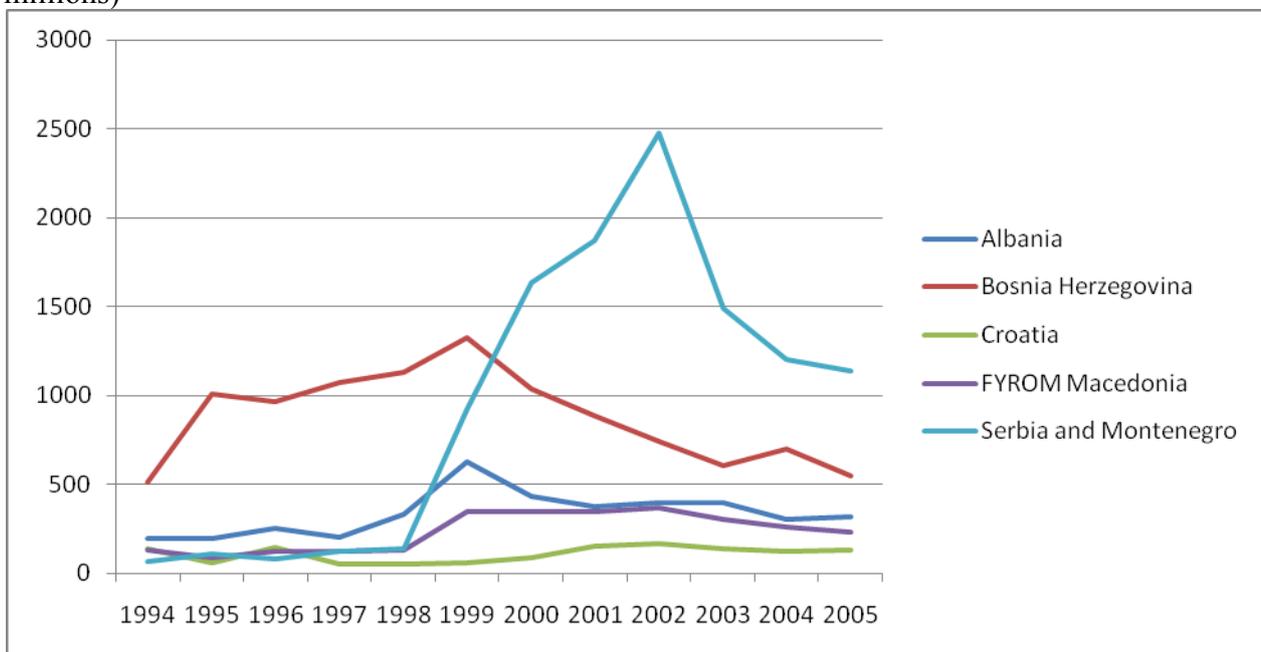
⁹³ Just to mention one of the most emphasised episodes it can be recalled the reportage of Christopher L. Hedges published on the New York Times the 16th of August 1999 that claimed that “As much as a billion dollars has disappeared from public funds or been stolen from international aid projects through fraud carried out by the Muslim, Croatian and Serbian nationalist leaders who keep Bosnia rigidly partitioned into three ethnic enclaves, according to an exhaustive investigation by an American-led antifraud unit”.

⁹⁴ House of Lords, 2002.

demands on the limited capacity of government partners. Efforts to harmonise donor assistance have so far been limited. Beyond coordination, there is little evidence of donor and host government understanding of, and commitment to, national level implementation of the OECD DAC harmonisation agenda. Part of the explanation lies in the dominance of political agendas as described in the previous paragraph and the fact that donors' development agendas are in general less well established in the Balkans than they are in sub-Saharan Africa, for example. However, there is growing realisation that donors' insistence on a variety of different procedures is inefficient and undermines reform.

Looking in depth the total amount of development assistance provided in the single states it appears clear as the major recipients have been Bosnia and Herzegovina (following the 1993-1995 civil war) and Serbia and Montenegro (that basically started to be get financial assistance after the NATO bombing of 1999 and the fallen of Slobodan Milosevic). Overall Bosnia and Herzegovina has been the most constant recipient while the ODA allocated to Serbia and Montenegro have been concentrated in very few years. In absolute terms development assistance to Albania, Croatia and FYROM Macedonia has been largely lower.

Figure 2.3. Total Official Development Assistance NET 1994-2005 (constant price, 2005 USD millions)



Source: author elaboration on DAC-OECD data

Data might look slightly different observing the official development assistance per capita and the Net ODA/GNI rate. Also in this case Bosnia Herzegovina result to be the major recipient with a considerable divide with the other Western Balkan Countries. Figures are quite eloquent in showing the important impact of ODA on BiH economy that in same extent can be considered as rather

dependent on foreign aid at least until the years 2000-2001. However it appears quite evident as official development assistance has been significant for all the Western Balkan Countries (except the case of Croatia).

Table 2.12. ODA per capita (data in USD) and Net ODA/GNI (data in %) in the Western Balkans

		Avarage 1994-2002	2003	2004	2005
Albania	ODA per capita	108.54	127,3	98.6	102.9
	Net ODA/GNI	:	6.0%	3.9%	3.7%
Bosnia Herzegovina	ODA per capita	247.2	155.28	178.95	141.89
	Net ODA/GNI	:	7.4%	7.8%	5.7%
Croatia	ODA per capita	23.05	31	28.5	28.8
	Net ODA/GNI	:	0.4%	0.4%	0.3%
FYROM Macedonia	ODA per capita	109.73	148.4%	127.9	114.3
	Net ODA/GNI	:	5.8%	4.7%	4.0%
Serbia and Montenegro	ODA per capita	100,11	181,23	146,07	138.5
	Net ODA/GNI	:	6.4%	4.9%	4.3%

Source: author's elaboration on DAC-OECD data

2.4 The European Model of Agriculture

2.4.1 The Common Agricultural Policy and the European Model of Agriculture

The development path and the European integration process which has been followed in the past years by the Central-Eastern European Countries (CEECs) can be considered as an important milestone for the Western Balkans (WB) Countries. At the same time the 2004 and even more the 2007 Enlargement have created a political, economical and social pressure towards the integration of the WB in the Enlarged Europe. This pressure reaffirms the importance of regional and transnational cooperation among the different WB Countries and between the WB Countries and the European Countries.

The role of regional and transnational cooperation is particularly significant in the agricultural sector which is a strategic sector for the WB Region in economical, social and environmental terms. Moreover out of historical, geographical and economical reasons, land represents a crucial resource for the Western Balkans. Agriculture and rural development can play a key role and are necessary basis in the promotion of economic development and social stability.

These considerations are particularly evident taking into account how much the Common Agricultural Policy has been used as a reference and goal in shaping the agricultural strategies of the WB Countries.

2.4.2 The European model

Actually the hearth of the European Model of Agriculture can be considered its multifunctional character. As previously indicated this means that together with competitive food and fiber production farming also delivers other services for society as a whole. These services, which are closely linked to food and fiber production, include safeguarding viable rural societies and infrastructures, balanced regional development and rural employment, maintenance of traditional rural landscapes, bio-diversity, protection of the environment, and high standards of animal welfare and food safety and the production of energy. This distinctive characteristics reflect the concerns of consumers and taxpayers. As European farmers provide these multifunctional services for the benefit of society as a whole, which often incur additional costs without a compensating market return, it is necessary and justified to reward them through public funds.

In the European context the sustainable development aspects of farming are of special importance. The objectives of European agricultural policy include not only keeping the environment within the farm in a good environmental condition and reducing negative environmental effects of production but also maintaining traditional landscapes and safeguarding biodiversity and animal welfare. By optimizing the use of fertilizers and minimizing the use of chemicals the implementation of the

policy can lead to remarkable improvements of soil and waters (S. Baker, M. Kousis, D. Richardson, S. Young, 1997).

2.4.3 The Common Agricultural Policy: an historical background

There were many motivations for the original formation of the CAP, as:

- the political mistrust between the Central European countries, namely France and Germany;
- in 1958, a large proportion of the population of Europe was employed in agriculture, and the industry accounted for a significant percentage of GDP, indeed as high as 27% of the population of France, and 5% of the total GDP of the original members (Belgium, Luxemburg, Holland, France, Germany and Italy);
- the agricultural sector of the members consisted primarily of small farms with the majority run by poor farmers. There were millions of family farms too small to provide productive employment unless they concentrated on some specialist crop or livestock. There were, therefore, social incentives in addition to economic ones. Each member country had a series of safeguards in place to protect their own farmers. All of this was an ongoing effect of the World War and the rules of supply and demand.

When the Treaties of Rome were negotiated it was decided that for agricultural products as much as for manufactured goods barriers between the Six should fall in the course of the so-called transitional period (of 12-15 years). However it was also said that a Common Market would be accompanied by a common policy, meaning that markets for agricultural commodities should be organised. There was much disagreement on how this could be achieved (W. Grant, 1997).

The Article 2 of the E.C. Treaty says:

“The Community shall have as its task, by establishing a common market and an economic and monetary union and to promote throughout the Community a harmonious, balanced and sustainable development of economic activities, a high level of employment and of social protection, equality between men and women, sustainable and non-inflationary growth, a high degree of competitiveness and convergence of economic performance, a high level of protection and improvement of the quality of the environment, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States.”

Article 3 provides the measures to reach the aims that are in the Article 2:

- a) *an internal market characterised by the abolition, as between Member States, of obstacles to the free movement of goods, persons, services and capital;*
- b) *a common policy in the sphere of agriculture and fisheries;*
- c) *a policy in the sphere of the environment;*

Because of the key role of the agricultural sector for the development of Europe, the process to create a Common Agricultural Policy has brought controversy, dispute and political tension among the Member States, in particular between France and Germany.

The French argument was that European agriculture should be protected against the rest of the world and surpluses should be used up internally, before consuming them anywhere else. At this time in France it was the farmers association to make policy and they had never liked a common policy base on supranational machinery. They preferred a simple preference scheme, which would allow them to sell their products on other markets: in particular, because wheat in France was cheaper than in Germany, they thought that they had a good chance of selling it there.

In order to appease French farmers it was decided by the Six that they should enjoy favourable contracts in the first few years of the community for certain specified commodities. This was a concession by the Germans. It, however, was only a provisional arrangement. Article 39 of the Treaty of Rome elaborated the main points of the common agricultural policy that was to be worked out in the next few years.

The proposals for the common market as applied to agriculture were presented in the Spaak Report which formed the basis for the article pertaining to this in the Treaty of Rome of 1957. The possible social and economic reasons adopting these proposals are clear, but there are some that argue that it was for political reasons that the agreement was really made. The large central powers of France and Germany held a lot of negotiating power.

France had the largest agricultural sector of the original six and Germany had a vastly growing industrial sector. Both wanted access to the other at competitive prices, and France still wanted to ensure Germany did not grow too powerful.

In 1962, Charles de Gaulle and Konrad Adenauer struck a straightforward deal: France signed up to a free market and customs union that allowed German industry access to its lucrative markets, while Germany channelled subsidies to France's farmers via Brussels. Therefore, the complex CAP was included in the Treaty, almost as a trade off between these two powers.

The Treaty of Rome defined the general objectives of a common agricultural policy. The principles of the Common Agricultural Policy (CAP) were set out at the Stresa Conference in July 1958. In 1960, the CAP mechanisms were adopted by the six founding Member States and two years later, in 1962, the CAP came into force.

The Common Agricultural Policy (CAP) can be defined as a set of rules and mechanisms, which regulate the production, trade and processing of agricultural products in the European Union (EU), with attention being focused increasingly on rural development.

The legal basis of an agricultural policy for the whole Community is defined in Articles 32 to 38 in Title II of the European Community Treaty. The Treaty of Amsterdam deleted Articles 44, 45 and 47, which had become obsolete.

Article 32 extends the common market to agriculture and agricultural products:

1. the common market shall extend to agriculture and trade in agricultural products.
“Agricultural products” means the products of the soil, of stock-farming and of fisheries and products of first stage processing directly related to these products;
2. save as otherwise provided in Articles 33 to 38, the rules laid down for the establishment of the common market shall apply to agricultural products;
3. the products subject to the provisions of Articles 33 to 38 are listed in Annex I to this Treaty;
4. the operation and development of the common market for agricultural products must be accompanied by the establishment of a common agricultural policy.

Article 32 defines the agricultural products as “the products of the soil, of stock-farming and of fisheries and products of first stage processing directly related to these products.”

The products subject to the provisions of Articles 33 to 38 are listed in Annex I. There are some products that are not included in the list, even if those can be considered agricultural products. The reason of their absence is that those products don't benefit of the special regime foreseen by the Treaty.

To give some examples cork was in the list but wood was not; flax and hemp were in the list, but silk, wool, cotton and jute were not.

Article 33 defines the main aims of the CAP, they are:

- to increase productivity
- to maintain living standards of agricultural population
- to stabilize markets
- to secure independence of food supply
- to maintain affordable consumer prices of food

The Treaty has fixed precise goals in the agricultural sector because of the following reasons: (nothing like this had been foreseen for non agricultural products):

- agriculture is more exposed than industry to atmospheric elements like freeze and dryness;
- agricultural products are perishable so they have to enter the market quite fast;
- the supply of agricultural products can not easily fit the demand;

- the agricultural products answer to a primary need of the human beings, so they have to be available:
 - in large quantity;
 - permanently
 - (and they have to be) easily accessible;
- at the time in which the Treaty was signed, all the member States had already measures to protect their agricultural sector, so they couldn't be abandoned without serious consequences at social level.

In Article 33 we can find that “in working out the common agricultural policy and the special methods for its application, account shall be taken of:

- a) the particular nature of agricultural activity, which results from the social structure of agriculture and from structural and natural disparities between the various agricultural regions;
- b) the need to effect the appropriate adjustments by degrees;
- c) the fact that in the Member States agriculture constitutes a sector closely linked with the economy as a whole.”

In order to attain the objectives set out in Article 33, a common organisation of agricultural markets shall be established. This common organisation shall take one of the following forms, depending on the product concerned:

- a) common rules on competition;
- b) compulsory coordination of the various national market organisations;
- c) a European market organisation.

The common organisation may include all measures required to attain the objectives set out in Article 33, in particular:

- regulation of prices
- aid for the production and marketing of the various products
- storage and carryover arrangements
- common machinery for stabilising imports or exports

The common organisation “shall be limited to pursuit of the objectives set out in Article 33:

- in any case shall exclude any discrimination between producers or consumers within the Community;
- any common price policy shall be based on common criteria and uniform methods of calculation;

- in order to enable the common organisation to attain its objectives, one or more agricultural guidance and guarantee funds may be set up.

To develop the CAP there were two stages foreseen (W. Grant, 1997):

- the first stage was a conference with all the member States in which it was possible to compare the national agricultural policy and the adoption of a plan suitable for all the resources and the needs of every single State;
- the second stage was the adoption by the Council legal acts with the aim to realize what it was established in the first stage.

In the Conference of Stresa (Italy, July 1958) it was worked out a resolution to underline two of the principles that were already set out in the Treaty:

- the agricultural policy had to consist in a market policy and a structure policy;
- the price policy had to permit the farmers to avoid an overproduction and to remain competitive.

The plan elaborated from the Commission was approved from the Council the 20th of December 1960.

On the base of the principles fixed in this plan, the Council has created the Common Market Organizations that are organized and divided for homogeneous groups of products.

Market organisations consist of the rules laid down by Community decisions to regulate production and trade in agricultural products in all the Member States of the European Community. Since the introduction of the common agricultural policy the common market organizations have gradually replaced national market organisations in those sectors where it was necessary. The market organisations seek primarily to achieve the objectives of the common agricultural policy, in particular market stabilisation, a fair standard of living for farmers and increased productivity in agriculture (S. Vieri, 2001).

They cover about 90% of final agricultural production in the Community, including cereals, pig-meat, eggs and poultry meat, fruits and vegetables, bananas, wine, milk products, beef and veal, rice, oils and fats (including olive oil and oil plants), sugar, flowers, dry fodder, processed fruit and vegetables, tobacco, flax and hemp, hops, seeds, sheep meat and goat meat and other agricultural products for which there is no specific market organisation.

There are no market organisations for alcohol or potatoes. The establishment and implementation of market organisations is the responsibility of the Council of Ministers and the European Commission. Although a number of common mechanisms govern their operation, it varies depending on the product.

The main tasks of the market organisations include:

- a) fixing single prices for agricultural products on all European markets. The Council fixes three different notional prices for products at the beginning of each marketing year:
 - The indicative price (basic price or guide price) is the price at which the Community authorities consider that transactions should take place. Although it is artificial, the indicative price is close to the price which the products would normally command on the Community market.
 - the threshold price is the minimum price at which imported products may be sold. It is higher than the intervention price and encourages Community economic operators to buy within the Community, so respecting the principle of Community preference.
 - the intervention price is the guaranteed price below which an intervention body designated by the Member States buys in and stores the quantities produced. In order not to burden the Community budget, the Council encourages private storage by granting a premium to producers who store products themselves. Since the 1992 reform, in some sectors higher direct payments to farmers offset lower guaranteed prices. The products stored may be denatured, used for humanitarian purposes or sold by the Commission. Sales are done by tender and the Commission decides in advance on the destination of the products. If it sells on the internal market, it ensures that markets will not be disturbed.
- b) Granting aid to producers or operators in the sector. Aid is granted in the form of area payments, production aid, aid to encourage livestock-farming and compensatory payments. Finance may also be provided for the marketing of production, to increase competitiveness and for the establishment and operation of groups of producers or operators in the agri-foodstuffs sector. Aid may also encourage the abandonment of certain types of production or the conversion of land and/or holdings. Market support measures are adopted if animal diseases break out.
- c) Establishing mechanisms to control production and organising trade with non-member countries. Systems of quotas and national guaranteed quantities permit the control of agricultural production and the limitation of surplus production and storage. The setting aside of land and the allocation of compensatory payments also prevent over-production. More in details:
 - quotas are the maximum production quantities allocated to farmers. Over-production results in financial penalties;
 - the national guaranteed quantities allocated to the Member States are maximum production quantities. If they are exceeded, producers must pay a co-responsibility levy. The intervention price for the following marketing year is then reduced;

- set-aside and diversification into non-food products are intended to take agricultural land out of cultivation or diversify production (production of raw materials for biomass fuels for example) in exchange for financial compensation.
- compensatory payments top up farmers' incomes and are granted on the basis of the number of animals and/or the area cultivated.

Overall there are four types of market organisations: some organisations involve mechanisms for production premiums and intervention, others use a simple intervention system, and some merely provide production aid or just provide the products concerned with customs protection:

- the organisations that involve mechanisms for intervention and production aids concern products as milk and milk products (from 2005), beef and veal, rice, olive oil, cereals, sheep, meat, oils and fats, raisins;
- the organisations that involve mechanisms for intervention concern products as sugar, milk and milk products, wine, pig meat, fresh fruit and vegetables;
- the organisations that involve mechanisms for production aid concern products as flax and hemp, dried fodder, processed products based on fruit and vegetables, tobacco, hops, seeds, goat meat, bananas;
- the organisations that involve mechanisms for customs protection concern products as poultry meat, eggs, other fats, live plants and flowers, products for which there is no market organisation.

Overall most market organizations combine several market support instruments:

1. Intervention and protection:

- EU agencies buy when prices fall below the intervention price;
- limit production for sugar by a quota (producers must sell over quota production at world markets at own risks);
- subsidies for storages to reduce supply at markets;
- tariffs and export subsidies (modified by Uruguay round)

2. Market protection without intervention:

- fixed tariff equivalents on imports to stabilize internal market prices;
- export subsidies.

3. Direct payments to producers:

- based on area or unit.

4. Supplementary support to processing industry (a small percentage of production).

Additional relevant instruments are used in the frame of trade with non-member countries that involves imports of products into the Community and exports of Community products to other countries. Adjustments have been adopted to encourage the export of processed products:

- imports: importers may be asked to produce an import licence and to pay an import levy. If the Community market is severely disturbed, the Commission has the power to take safeguard measures;
- exports: the European Union pays refunds to all Community producers who export to the rest of the world in order to subsidise European exports so that their prices are brought to the level of world prices. In principle the amount of the refund is always the same but it may vary depending on the destination of the product or economic conditions. The issue of an export licence may also be made compulsory and a condition for granting the refund;
- processing: the Union has the right to forbid use of inward processing arrangements under which a product imported from a non-member country may be processed in the Union without payment of customs duties provided that it is re-exported. Outward processing, under which goods are temporarily exported to a non-member country for processing prior to re-import without levy, may also be forbidden.

2.4.4 Towards a necessary reform

Since the Sixties it was evident that the CAP was becoming inadequate to face the evolution of the society, of the market and of the overall agricultural sector. The CAP met most of its initial objectives, such as (W. Grant, 1997; S. Vieri, 2001):

- self-sufficiency of food supplies in the Community. This was indeed achieved with a vengeance since agricultural output increased greatly;
- farmers enjoyed a fair standard of living (although large farmers and farmers in the North of Europe benefited most from this situation);
- agricultural markets were stabilised;
- food security was assured;
- consumers however lost out because of high prices in shop and supermarkets driven up by high target prices for farm products and high levies on imported foodstuffs.

However besides the positive results that has been achieved by the first instruments of the CAP several constraints also emerged (W. Grant, 1997; S. Vieri, 2001):

- guaranteed prices bore no relation to demand and encouraged massive overproduction. Why did the surpluses emerge? The answer is that if prices are set at a high level and the guarantees extended by the Cap are related to output that provides a strong stimulus for

farmers to maximise output. Because also yields were increasing as we said earlier, this was bound to lead to massive overproduction;

- the problem of surpluses began to emerge, notably of wheat, butter (mainly out of surplus milk production) and beef. They had to be stored, which was very costly or eventually sold at a loss at Third Markets. The increasing cost of accumulated surpluses had finally led to attempts at reforming the Cap, beginning in the Seventies and with increasing urgency in the Eighties;
- big farmers produced more and thereby earned more money, whereas small farmers who most needed assistance earned less;
- in order to increase output farmers indulged in overworking the soil with excessive amount of fertilisers, herbicides etc, thus creating environmental problems;
- quotas, levies, tariffs in agricultural trade angered exporters to the EC and contrasted with the efforts to promote open trade and further liberalisation;
- dumping on world markets distorted prices and antagonised non-EU producers.

In this frame the first proposal to review the CAP was presented in 1968 within the “Memorandum for the reform of agriculture in EEC” known as the “Mansholt Plan”. The key elements of the plan can be summed up in the followings (A. Segrè, 1999):

- to review the agricultural market support policy with the aim to give an economic significance to prices, in order to make the commercial market economically attractive for the farmers;
- To promote the creation of agricultural activities and farms big enough to guarantee to the farmers the same living standards of other social categories.

The idea of Mansholt was to use the price policy for a decreasing the total number of farmers, but the plan didn't reach the political approval to become operative and the measure remain only at the theoretical level. The first reforms aiming to a structural reform of the CAP and to its modernization has been introduced in 1972, but it is only with 1983 that the Commission proposed a substantial reform due to the too expenditures sustained by the Community Budget in order to continue its price policy. The main pillars of the reform were included in the Green Book "Common Agriculture Policy Perspectives" (1985) and were aimed, through the introduction of several tools (quotas, stabilizers, structural measures) to find a better equilibrium for the market (S. Vieri, 2001).

In 1991 the European Commission underlined its worries about the CAP and its reform in a document entitled “Evolution and future of the CAP”.

This analysis expressed the need to cut the automatic link between the income support and the amount of agricultural products (S. Vieri, 1999). In essence, they supported internal prices and incomes, either through intervention and/or border protection or, where no border protection existed, by variable aids (deficiency payments) to producers and processors using agricultural products from the Community which had to be paid for at more than the world price. The policy made an important contribution to economic growth (A. Segrè, 1999). The EU was to become the biggest importer and the second biggest exporter of agricultural products in the world.

2.4.5 The Mac Sharry plan - The First reform of the CAP

The EU Council of Agriculture Ministers formally adopted the most radical reform of the CAP in its history in June 1992. Essentially, the reform involved a most significant redirection of Community farm policy (W. Grant, 1997; S. Vieri, 2001):

1. To ensure the competitiveness of Community agricultural production, EU prices in the arable and beef sector, over a three years period, were reduced to become much closer to world market levels (for example, minus 29% for cereals, minus 15% for beef)
2. To preserve the viability of farmers, they receive compensatory payments on an historical basis for the reductions in EU support prices
3. In the case of cereals and other arable crops, payment of compensation is in general dependent on the withdrawal of land from production (the "set-aside" premium)
4. An important innovation in the new CAP was the accompanying measures, which cover agri-environment, afforestation and early retirement measures.

CAP reform of 1992 covered about 75% of Community agricultural production. Results of the first three years of the application of the reform are as follow:

- in the key cereals sector, market balance has been restored;
- while certain climatic phenomena (drought) have had a certain impact, the control of production achieved is due principally to the set-aside instrument;
- EU cereals have become more competitive on the Community market.

The most important measures provided by the Council were:

- milk delivery quotas: the imposition of milk delivery quotas (in 1984) was the first measure adopted by the Council in the context of CAP reform;
- stabilizers: in the context of budgetary discipline stabilisers' for several products were imposed. These operated in different ways depending on the commodity, but generally provided for cuts in prices or subsidies if total EU production exceeded certain "maximum guaranteed quantities";

- set-aside: in 1988 a “set-aside” scheme was introduced: producers who volunteered to withdraw at least 20% of their arable land for at least five years entitled to compensation.

Other measures arising from the 1992 CAP reform have been undertaken concerning farming and land utilisation, namely:

- a) the introduction of environmental conservation measures. The agri-environmental measures accompanying the CAP reform seek to achieve a dual objective, firstly, by helping to limit production through the encouragement of extensive farming practices and, secondly, by recognising the public interest role exercised by farmers in terms of land management and the protection of natural resources.
- b) afforestation aid for the alternative uses of agricultural land. The afforestation measure comprises aid for afforestation of agricultural land, aid for upkeep of plantations, annual premiums to compensate for loss of income and aid for woodland improvements on agricultural holdings. The eligible aid in respect of these measures is laid down in the regulations, 50% being met by the Community budget, this proportion rising to 75% in Objective 1 regions.
- c) an early retirement scheme for farmers. The early retirement incentive should be considered as a measure to facilitate structural adjustment, the land formerly cultivated by older farmers now giving neighbouring farms the chance to expand and achieve economic viability, or providing opportunities for the setting up of young farmers, or alternatively offering opportunities for new land utilisation in accordance with environmental land use and conservation requirements.

2.4.6 The Common Agricultural Policy and the World Trade Organization

The CAP reform of 1992 was undertaken to respond to very serious internal problems in the EU. However, the radical reforms of 1992 also enabled the EU to comply with its obligations under the Agreement of the Uruguay Round of the General Agreement on Trade and Tariffs Agreement, which was signed on 15 April 1994. This was a far reaching multilateral agreement which also covered all farm products (“agreement on agriculture”). This reciprocal agreement requires a 20% reduction in domestic support for agriculture over a six-year period, a reduction of 36% in budget spending on export subsidies and a 21% cut in the quantity of subsidised exports (G. Anania, F. De Filippis, 1996).

Agriculture provided some of the toughest negotiations, particularly between the EU and the United States, both of whom have traditionally had extensive policies to support and protect their farmers.

Also at stake were the conflicting interests of food exporters and importers and the competing aims of countries looking to sell their produce on the world market. The aim was to reduce the extent to which such policies restricted trade, while at the same time taking the interests of domestic farmers into account. The EU had prepared for the necessary changes by agreeing to make some radical reforms to its CAP (G. Anania, F. De Filippis, 1996; S. Vieri, 2001).

Under the new international rules, the EU will still be able to give financial support to its farmers, but the aid will be cut by 20% over a six year period - a commitment which matches the figures already agreed in the CAP reform package. In addition, some specific schemes like set aside where farmers are encouraged to let land lie fallow rather than produce crops for which there is no market are exempt from General Agreement on Trade and Tariffs (GATT) obligations. Similarly, previously rigid quotas and import restrictions have been replaced by more flexible mechanisms - making it easier to export farm produce.

One of the most contentious arguments was over the future of subsidised food exports - a policy the EU has practised since its earliest days. The final outcome centred on an agreement by developed countries both to reduce the level of export subsidies by 36% and the actual volume of subsidised exports by 21% over six years.

Again, the commitments, which will contribute to a more stable trading environment, are in line with the EU's own internal agricultural reforms. The importance of the agreement is that it established the recognition of the World Trade Organization (WTO) of the way the EU supports its farmers and ensured there will be no international challenges for at least nine years, and probably longer, against the CAP (F. Anania, F. De Filippis, 1996)..

2.4.7 Agenda 2000

The final Agenda 2000 proposal from the Commission is the outcome of several years of internal power struggle between these different interests, and the result is quite clear, at least by EU standards. While all the six motives are duly addressed in some way or other, only one stands out as a major priority: facilitating trade. The belief in world market access as the necessary basis for the future CAP is what has shaped the core of the reform: the continued shift to lower prices and higher direct payments.

Since its inception, the common agricultural policy has had to adapt a great deal in order to meet the challenges with which it has been faced over the years: in the early days it concentrated on attaining the goals set out in Article 39 of the Treaty, securing a fair standard of living for the agricultural community and ensuring security of supply at affordable prices, and then it had to control quantitative imbalances. Finally it embarked on a new approach based on a combination of

lowering institutional prices and making compensatory payments. The aim of Agenda 2000 is to deepen and widen the 1992 reform by replacing price support measures with direct aid payments and accompanying this process by a consistent rural policy (A. Kay, 1998; A. Segrè, 1999).

So to face the new internal and external challenges a reform became a necessary step (A. Kay, 1998; A. Segrè, 2003):

- a strong growth is predicted on the world agricultural market with prices offering a good rate of return. The current level of CAP prices is too high for the EU to meet international undertakings and to be able to take advantage of the expansion of world markets, with the risk that surpluses will appear again and create intolerable budget costs, and market share may be lost within the Community and on the world level;
- agricultural support is distributed somewhat unequally between regions and producers, resulting in poor countryside planning: a decline in agriculture in some regions and overly intensive farming practices in others, generating pollution, animal diseases and poorer food safety;
- making the CAP more acceptable to the average citizen, to the consumer, is a key task;
- the strength of the agricultural sector in the Union rests on its diversity: its natural resources, its farming methods, its competitiveness and income levels, and also its traditions. With successive enlargements, the management of the CAP has become far too complex and bureaucratic, and sometimes even almost impossible to understand. A new, more decentralised model has, therefore, to be developed which grants the Member States greater freedom without any risk of distorting competition or renationalising the CAP but with shared, clear ground rules and rigorous controls;
- the Union has to prepare its agricultural sector for international negotiations and define the limits of what it finds acceptable;
- enlargement makes market management and simplification measures even more necessary as the economies in the applicant countries are still heavily dependent on agriculture.

The agreement reached at the European Council in Berlin responds to the key Agenda 2000 proposals, giving concrete shape to a European model for agriculture in the years ahead.

The Berlin European Council reaffirmed that the content of the reform will secure a multifunctional, sustainable and competitive agriculture throughout Europe, including in regions facing particular difficulties. It will also be able to maintain the landscape and the countryside, make a key contribution to the vitality of rural communities and respond to consumer concerns and demands regarding food quality and safety, environmental protection and maintaining animal welfare standards.

The Commission's proposals adopted by the European Council were based on the 1992 reforms which successfully reduced surpluses and controlled expenditure without compromising an average 4.5% rise in income. This general trend has been confirmed by the European Council in the following guidelines (A. Segrè, 2004):

- continued competitiveness should be ensured by sufficiently large price cuts that will guarantee growth of home-market outlets and increased participation by Community agriculture in the world market. These price reductions are offset by an increase in direct aid payments in order to safeguard the income level;
- there is to be a new division of functions between the Commission and the Member States, whether concerning compensation in the form of direct payments or rural development measures incorporated into an overall programming framework;
- this new decentralisation is logically accompanied by a major effort at simplifying the rules, such as the new rural development Regulation, which does away with a large number of regulations, or the market-management regulations, in particular the one on arable crops. Legislation is now clearer, more transparent and easier to access, with red tape for farmers cut to the strict minimum;
- rural development becomes the second pillar of the CAP. For the first time, the foundations have been laid for a comprehensive and consistent rural development policy whose task will be to supplement market management by ensuring that agricultural expenditure is devoted more than in the past to spatial development and nature conservancy, the establishment of young farmers, etc. The Member States will be able to vary, i.e. downwards, the direct aids awarded to holdings in line with criteria to be defined by each Member State relating to the amount of labour employed on a farm. Money released in this way is to be allocated by the Member State to agri-environmental schemes.

Moreover a new financial framework has been established to cover the development of the CAP and the effects of enlargement in a coherent fashion and within reasonable budget limits, for a sufficient length of time.

2.4.8 The 2003 reform

On 26 June 2003, EU farm ministers adopted a fundamental reform of the Common Agricultural Policy (CAP). The reform has completely changed the way the EU supports its farm sector. The new CAP has geared towards consumers and taxpayers giving EU farmers the freedom to produce following the market requests. Besides supporting farming incomes the 2003 reform has taken into account other elements and challenges as food quality, the preservation of environment and animal

welfare, landscapes, cultural heritage, and enhancing social balance and equity (EC, 2003a; EC, 2003b).

To achieve these goals the Commission used the proposals of the Mid-Term Review of Agenda 2000 of July 2002 (EC, 2003b):

1. to cut the link between production and direct payments;
2. to make those payments conditional to environmental, food safety, animal welfare and occupational safety standards;
3. to substantially increase EU support for rural development via a modulation of direct payments with the exemption of small farmers;
4. to introduce a new farm audit system;
5. to introduce new rural development measures to boost quality production, food safety, animal welfare and to cover the costs of the farm audit;
6. as to the market policy, the Commission proposed:
 - to bring to a close the process of cereal reforms, notably with a final 5% cut in the intervention price and a new border protection system;
 - a decrease in the additional durum payment accompanied by a new quality premium;
 - a compensated decrease in the rice intervention price;
 - adjustments in the dried fodder, protein crop and nuts sectors.

The proposals fully respect the objectives policy direction and financial framework for the CAP set in Agenda 2000. So the main aims of the Reform has been (EC, 2003a):

- to gear towards consumers' and taxpayers' interest, while continuing to assist farmers;
- to protect the rural economy and the environment;
- to keep budgetary costs stable and manageable;
- to assist in negotiating a World Trade Organisation (WTO) agriculture agreement that meets the needs of EU agriculture and society.

The major elements of the “reformed” CAP can be grouped in three different set of measures according their final objective (EC, 2003b; A. Segrè, 2004):

1. To increase the competitiveness of the European agriculture and to promote a sustainable and market oriented agriculture:
 - a. single payment scheme (decoupling): it has replaced most of the direct aid payments to farmers currently offered. The new single payment scheme is no longer be linked to what a farmer produces (in other words it is decoupled). The amount of the payment is calculated on the basis of the direct aids a farmer received in a reference period. A major aim of the

single payment scheme is to allow farmers to become more market oriented and to release their entrepreneurial potential.

b. Cross-compliance. The reformed CAP puts greater emphasis on the cross-compliance, which is now compulsory. All farmers receiving direct payments will be subject to cross-compliance. A priority list of 18 statutory European standards in the fields of environment, food safety, and animal health and welfare has been established and farmers can be sanctioned for non-respect of these standards, in addition to the sanctions generally applied, through cuts in direct payments.

2. Strengthening of rural development policy:

a. dynamic modulation. The need to reinforce rural development has been an important element in the discussion on the CAP over recent years. In this respect and in order to finance the additional rural development measures agreed, direct payments for bigger farms has been reduced (the mechanism known as ‘modulation’), by 3% in 2005, 4% in 2006 and 5% from 2007 onwards. Direct payments up to an amount of EUR 5000 per arm will remain free of reductions.

b. New measures to promote the environment, quality and animal welfare and to help farmers to meet new EU standards: the reform has also included a significant extension of the scope of currently available instruments for rural development, starting in 2005, to promote food quality, meet higher standards, and foster animal welfare. The new measures, together with the modulation had the aim to provide new strength to EU rural development policy.

Apart for the new measures (i.e. food quality measures; meeting standards; animal welfare) that has been introduced several other existing measures (i.e. support for young farmers; support for the implementation of Natura 2000; forest measures) has been strengthened.

c. Farm advisory service: support has been made available for farmers to help them with the costs of using farm advisory services.

3. Revisions to the market support parts:

a. Significant reforms in the intervention mechanism of sectors of structural imbalance: cereals; grain legumes; dairy; rice.

b. Adjustments in support mechanisms in other sectors: durum wheat; drying aids; starch potatoes; dried fodder; nuts.

c. Mechanism for financial discipline: a financial discipline mechanism has been applied in order to keep CAP spending in line with the strict budgetary ceilings laid down by EU

leaders at the European Council in Brussels in October 2002. This means that direct aid will be adjusted when forecasts indicate that spending in the relevant areas of the CAP (market expenditure and direct payments — subheading 1a of the financial perspective) will exceed established ceilings, reduced by a safety margin of EUR 300 million. Regarding the financial discipline and the new role of the second pillar (rural development) an important element that has to be taken in consideration to understand the changes in the Common Agricultural Policy and in the financial tools for the Common Agricultural Policy is the creation of an European Agricultural Fund for Rural Development.

An additional element that has to be underlined is the link of the 2003 Reform with the EU Enlargement. The reform package adopted on 29 September 2003 by the Council contains significant modifications of the *acquis* on which the accession negotiations were based. Since the texts related to the CAP reform did not take into consideration either the results of these negotiations, or the enlargement itself, it has become necessary to adopt, before enlargement, both the Accession Act and the texts related to the CAP reform, in order to guarantee the mutual completeness and complementary of the two legislative texts so as to be applicable in the enlarged Community (A. Segrè, 2004).

The Commission has proposed to (EC, 2003):

- adapt the CAP-related annexes of the Act of Accession so that the negotiation results fit with the new *acquis*. (this is necessary where references in the Act of Accession will become obsolete or where the negotiation results are not immediately compatible with the reformed CAP);
- modify the legal CAP reform texts so that they can be applied to the new Member States and so that they incorporate any negotiation results that would otherwise be lost.

2.4.9 The health check

On November 2007 the Commission adopted the Communication "Preparing the Health Check of the CAP reform" that can be considered as a first step towards a multilateral consultation among all the Member Countries. The Health Check has not been presented as a major reform, but as an effort to streamline and to modernize the CAP and to analyze the results achieved with the 2003 reform. This evaluation has been led also through a public consultation with wide-spread representation across Member States and stakeholders, from farm and environmental groups to industries, legal proposals have been presented (EC, 2007). This consultation has led to highlight three main goals to take into consideration within the Health Check package (EC, 2007):

- to continue the simplification of the direct payments to European farmers and to cut the high individual aid in favor of the poorest farmers located in marginal rural areas;
- to adjust the CAP to the new challenges created by globalization and to the diverse reality characterizing the European space;
- to increase the attention for environmental protection, water management, climate change and preservation of biodiversity.

To achieve these goals the Commission has proposed modifications of three main areas (EC, 2008):

1. Direct aid system:

- continuing simplification;
- moving towards a flatter rate of aid;
- clarify the linkage between the payments farmers receive and the farmers' obligations in the areas of environment; public, animal and plant health; and animal welfare;
- adjust the direct aid scheme to provide for the possibility of using public support in the case of natural disasters and animal and plant diseases;
- foster modulation ;
- foreseen payments limitation;
- extending the single payment area scheme to the Member States that have joined EU in 2004 and 2007;

2. Market instruments:

- facilitate the transition towards the elimination of milk quotas (foreseen for 2011);
- eliminate the set aside instrument; review the markets measures;

3. Rural development policy:

- development of new tools for the management of production risks;
- enhancing the fighting to climate change;
- promote a more efficient management of water;
- abolish the aid for energy crops which have shown to respond effectively to market demand and to not to need any public support;
- preserve the biodiversity.

2.4.10 Criticism

The CAP has been roundly criticized by many diverse interests since its inception. Criticism has been wide-ranging: also the European Commission has long been persuaded of the numerous defects of the policy. Agenda 2000 and the 2003 Reform have partially adjusted and revised some of the main distortive elements used within the CAP however distortions and negative effects

remains. Overall criticism has an extensive literature (J. Aakkula, 2003; A. Alesina, I. Angeloni, L. Schuknecht, 2002; N. Baltas, 1997; W. Gant, 1995; J. Kola, 2002; A. Mayhem, 2004; A. Sapir, 2003; A. Segrè, 2004) and range from the effects on third countries to the effects on the environment and on the other European sectors that could receive the support granted to the agricultural one:

- it has a strong dumping effect: third countries, and in particular developing and transition countries, cannot compete with state subsidized prices their domestic markets are flooded with excess EU produce at prices below that the domestic farmer can compete with. The dumping of agricultural products destroys the livelihoods of millions of farmers in developing countries, so all agricultural subsidies that facilitate export dumping, or the sale on world markets of goods at prices below their costs of production, should be phased out;
- it creates artificially high food prices: it removes food production from supply/demand economics leading, as seen especially during the 80s and the 90s, to the production of a significant amount of surplus that has been often exported or shipped as food aid);
- it favors large instead small farms: although most policy makers in Europe agree that they want to promote "family farms" and smaller scale production, the CAP in fact rewards larger producers. Because the CAP has traditionally rewarded farmers who produce more, larger farms have benefited much more from subsidies than smaller farms. This effect has been partially overcome with the introduction of decoupling that cut the direct link between aid and production;
- it is not fair considering Member States: some countries in the EU have larger agricultural sectors than others and consequently receive more money under the CAP. Other countries receive more benefit from different areas of the EU budget;
- it is unsustainable in an enlarged EU. The inclusion of twelve additional countries since 2007 has obliged the EU to take measure to limit CAP expenditure. Even before expansion, the CAP consumed a very large proportion of the EU's budget, upward of 90% in the late 80s. Considering that a small proportion of the population, and relatively small proportion of the GDP comes from farms, many considered this expense excessive;
- it causes environmental problems: a common view is that the CAP has traditionally promoted a large expansion in agricultural production and at the same time it has allowed farmers to employ uneconomical ways of increasing production, such as the indiscriminate use of fertilizers and pesticides, with serious environmental consequences. However the 2003 Reform has introduced several measures that put the environment at the real center of the EU farming policy;

- it is an unnecessary supra-state intervention: some major critics of the Common Agricultural Policy reject the idea of protectionism, either in theory, practice or both. Free market advocates are among those who disagree with any type of government intervention because, they say, a free market without interference will allocate resources more efficiently. A straightforward economic model would suggest that it would be better to allow the market to find its own price levels, and for uneconomic farming to cease. Resources used in farming would then be switched to a myriad of more productive operations, such as infrastructure, education or healthcare;
- it supports a low number of beneficiaries: only around the 5% of EU's population works on farms and the farming sector is responsible for less than 3% of the GDP of the EU. Moreover even if these numbers are grown with the 2004 and 2007 enlargements the number of farmers is continuing to follow a declining trend. However CAP supporters state that subsidies under the CAP framework are essential to maintain rural areas alive, to preserve the rural environment, and to continue to guarantee food safety and food security.

2.4.11 The Western Balkans toward the EU Integration

Western Balkan Countries are moving significant steps towards the European Integration process. EC has recognized the progress made in the past few years in reforms, in meeting established criteria and conditions, and in enhancing regional cooperation. And in December 2007, the European Council reaffirmed that "the future of the Western Balkans lies within the European Union" (EC, 2008).

At present Western Balkan Countries are divided in candidate countries (Croatia, and the FYROM) who have already started (Croatia) or are in the process to start (FYROM) accession negotiations and potential candidate countries (Albania, Bosnia and Herzegovina, Kosovo under United Nations Security Council Resolution 1244, Montenegro, and Serbia) that will obtain an eventual EU membership when they will fulfill the accession criteria.

To facilitate their integration the EU has established with all these countries a process – known as the Stabilisation and Association process (SAP) - that aims to bring them progressively closer to the EU. Thanks to this process, these countries already enjoy free access to the EU's single market for practically all their exports, as well as EU financial support for their reform efforts. Substantially these countries have been granted with an autonomous trade measures till 2010.

Within the SAP the EU has also set precise conditions and procedures that must be respected by beneficiary countries (EC, 2007). This concerns the following requirements: obeying the EU rules on the origin of goods, refraining from introducing new import duties or increasing existing ones,

including customs, or quantity restrictions for goods originating from the EU; the inclusion of BiH in an efficient effort to fight crime; respecting the fundamental principles of democracy and human rights; willing to promote economic reforms and regional cooperation with other countries involved in the EU process of stabilization and accession (EC, 2007).

As underlined by the Council Regulation (EC) No 530/2007 the autonomous trade measures have to respect the framework established within the Stabilisation and Association Agreement (a contractual relationship between the EU and each Western Balkan country, entailing mutual rights and obligations) and since the Stabilisation and Association Agreement (SAA) establishment in January 2006 they can be considered concretely as part of it. SAA, which is part of the EU Stabilisation and Association Process (SAP) and European Neighbourhood Policy (ENP), treats trade issues in a more comprehensive manner than the autonomous trade measures; namely it includes provisions not only about trade liberalisation in goods but also about other trade related issues as services, state procurement, intellectual property rights and competition.

In particular during the 2007-2013 period, candidate countries and potential candidate countries will be supported through the single Instrument for Pre-accession Assistance (IPA) that will replace the previous pre-accession instruments: CARDS, Phare, ISPA and SAPARD programmes (EC, 2006).

3. Methodology

3.1 Methodological framework: case study as a research method

Most of the authors (R. Stake, W. Scholz and O. Tietje, R. Yin) agree that each case study should use multiple sources of information and different and diversified research tools. All method should employ direct and indirect participant observation, structured interviews and surveys, and they could also include experimental design, focused interviews, open-ended interviews, archival records, documents and scientific data from field and laboratory⁹⁵.

This chapter will be dedicated to the overall methodological approach used to build the case study. However the first part will be dedicated on the one hand to give an overview of case study research emphasising the methodological framework built by R. Yin and on the other hand will be focused on the different methodological tools used to build this case study: the data gathering methods that has been used; the period dedicated to field research; the system approach; the agrarian system analysis; the social network analysis; the field survey.

The second part of this chapter will be dedicated to the case study design.

3.1.1 Case study as a research method: the reasons of a choice

The most recent agricultural census in BiH dates back to 1991. Since that time more than 15 years and a civil war are passed; a post war reconstruction and a transition from a partially centralized system to the market economy are still ongoing. Moreover in the 1995-2007 period the international presence has been strong in all the Country due to the military missions and to the civil missions of International Organization and NGOs. Some early steps towards the European integration process has been moved and relations at the regional level has been restored. But overall, a unique, extremely complex and hardly efficient institutional structure has been artificially chosen to govern BiH and to lead the Country on its own way to stabilization and development.

So, on the one hand analysis and investigations on BiH are often based on a picture (the 1991 census) of a country that do not exist anymore and on the other hand on a variety of national and international statistics and (mainly) estimations that remain hidden, or often loose their significance, in that complicated institutional structure.

If the lack of complete and reliable data sets is a common phenomena in transition and post conflict countries, BiH is not an exception to this rule and it is probably an extreme case, at list in Central Eastern Europe.

⁹⁵ W. Scholz, O. Tietje, 2002.

A clear picture of the economic situation of agriculture and related subsectors is missing. Crucial information systems, like the FADN (Farm Accountancy Data Network) and EAA (Economic Accounts for Agriculture) applied in the European Union Member States, are completely missing. The cadastre is outdated. A farm registry still does not exist. Policies and rule are established and implemented by different ministries and institutions that hardly cooperate among each other. Policies are short term. Institutions are unstaffed and often without sufficient human and financial resources. In this environment policy makers, researchers, analysts lack the data to investigate the agricultural sector and carry out sound policy analysis.

Therefore there is the need of a interdisciplinary methodology and of a combination of different research tools and instruments in order to overcome some of the constraints that characterize Bosnia and Herzegovina.

In a so complex environment a case study approach can be a necessary basis in order to have a better understanding of the sector and to investigate its connections, role and interdependency within the different dimensions of the socio-economic system.

The case study approach aims at *a holistic understanding of cultural systems of action*, i.e. sets of interrelated activities engaged in by the actors in a social situation: it is hence closely related to the system approach. Economic systems are indeed to be regarded as cultural systems of action. Case studies tend to be selective, are focused on a limited number of issues that are fundamental to understanding the system under examination, and often require multi-disciplinary (or multi-dimensional) approach.

The general approach used to build this case study is broadly inspired to the methodological framework for case study research designed by Robert K. Yin; moreover it also benefits from the system approach and the agrarian system analysis.

3.1.2 Case study research

*“Do case studies, but do them with the understanding that your methods will be challenged from rational (and irrational) perspectives and the insights resulting from your case studies may be underappreciated”*⁹⁶.

The history of case study research is marked by periods of intense use and periods of disuse⁹⁷ due to the controversial consideration of the academic word that for a long period (and in part also today) has stereotyped case study as a weak sibling among social research methods⁹⁸.

⁹⁶ R. K. Yin, 2003, p. xiii.

⁹⁷ W. Tellis, 1997.

⁹⁸ R. K. Yin, 2003.

Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. Researchers have used the case study research method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods. Robert K. Yin defines the case study research method as “*an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used*”⁹⁹.

A first generation of case studies has been originated in anthropology during the era of logical positivism and has been developed by the Chicago School (The Department of Sociology of the University of Chicago) in particular between 1900 and 1935¹⁰⁰. During the era of logical positivism social sciences became divided in quantitative and qualitative research¹⁰¹ and this division has led to a strong debate and to the creation of a movement within sociology, to make it more scientific. This meant providing some quantitative measurements to the research design and analysis. Case study research and the Chicago School have been under serious scientific attacks from the supporters of the scientific method (Columbia University overall) that were questioning the insufficient precision (quantification), objectivity and rigor of case study research¹⁰². The outcome of this debate has been an important decline in the use of case study as a research methodology.

However a renewed interest in case study began in the 1960s when the academic world was becoming concerned about the limitation of quantitative methods. A second generation of case study has been developed with the contribution of J. Hamel, S. Dufour and D. Fortin (1993), B. Glaser and A. Strauss (1967), R. Stake (1995), and R. K. Yin (1984, 1989, 1993, 2003). This second generation merged together qualitative and quantitative research and made relevant efforts to develop case studies as a more rigorous method of research by foreseen protocols, parameters, formal procedures, validity checks.

The literature on case studies is primitive and limited¹⁰³, in comparison to that of experimental or quasi-experimental research, however there are some areas that have used case study techniques extensively, particularly in government and in evaluative situations¹⁰⁴. The government studies

⁹⁹ Ibidem, p. 23.

¹⁰⁰ R. Johansson, 2003.

¹⁰¹ Ibidem.

¹⁰² R. K. Yin, 2003.

¹⁰³ Ibidem.

¹⁰⁴ W. Tellis, 1997.

were carried out to determine whether particular programs were efficient or if the goals of a particular program were being met. In this frame case studies have been used to deepen the analysis and to investigate relevant information and aspects that tended to be underestimated by merely quantitative techniques¹⁰⁵.

However there are several examples of the use of case methodology in the literature.

Case studies can be *holistic* or *embedded*, *single case* or *multiple cases*. Yin defines a case study as *holistic*¹⁰⁶ when it is shaped by a thoroughly qualitative approach that relies on narrative, phenomenological descriptions. *Embedded*¹⁰⁷ case studies involve more than one unit, object of analysis and are not limited to qualitative analysis alone.

A further important distinction is between *single* and *multiple case* studies. On the one hand *single cases*¹⁰⁸ are used to confirm or challenge a theory, or to represent a unique or extreme case. On the other hand *multiple-case*¹⁰⁹ studies follow a replication logic. This is not to be confused with sampling logic where a selection is made out of a population, for inclusion in the study. This type of sample selection is improper in a case study. Each individual case study consists of a "whole" study, in which facts are gathered from various sources and conclusions drawn on those facts.

Stake identifies *intrinsic* and *instrumental* case studies where *intrinsic*¹¹⁰ case studies are characterized by a need of information on a particular case and *instrumental*¹¹¹ case studies are characterized by an objective that is something else than understanding the specific case (e.g. scientific or financial objectives).

A further classification could be based on the epistemological status. Following Yin it is possible to identify *exploratory*, *explanatory*, and *descriptive* case studies. In *exploratory*¹¹² case studies, fieldwork, and data collection may be undertaken prior to definition of the research questions and hypotheses. This type of study has been considered as a prelude to some social research. *Explanatory*¹¹³ cases are suitable for doing causal studies. *Descriptive*¹¹⁴ cases require that the investigator begin with a descriptive theory, or face the possibility that problems will occur during the project.

¹⁰⁵ Ibidem.

¹⁰⁶ R. K. Yin, 2003.

¹⁰⁷ Ibidem.

¹⁰⁸ Ibidem.

¹⁰⁹ Ibidem.

¹¹⁰ Stake, 1995.

¹¹¹ Ibidem.

¹¹² R. K. Yin, 2003.

¹¹³ Ibidem.

¹¹⁴ Ibidem.

Moreover a case study can be used for different purposes¹¹⁵: as a *research method*, as a *teaching method*, or as an *action/application*. A further dimension is connected with the data gathering. Most of the authors (Stake, W. Scholz and O. Tietje, Yin) agree that each case study should use multiple sources of information. All method should employ direct and indirect participant observation, structured interviews and surveys, and they could also include experimental design, focused interviews, open-ended interviews, archival records, documents and scientific data from field and laboratory¹¹⁶.

Ronstadt defines several basic formats for case studies: *highly structured*, *short vignettes*, *unstructured* or *groundbreaking*. A *highly structured*¹¹⁷ case is characterized by the use of known methods, by an extensive written report and the “best solution” often exist; *short vignettes*¹¹⁸ are characterized by a well structured case with excess of information where a “best solution” does not usually exist. *Unstructured cases*¹¹⁹ do not present a “best solution however a preferred practice or theory may exist; *groundbreaking cases*¹²⁰ provides new terrain for studies through a completely new situation.

Finally, as far as the synthesis process is regarded, it is possible to identify different dimensions: *informal* (avoiding reductionism and elementarism), *empathic*, *intuitive*, and *formative* or *method driven*¹²¹.

Table 3.1. Dimensions and classifications of case studies

Design	Holistic or embedded
	Single case or multiple cases
Motivation	Intrinsic or instrumental
Epistemological status	Exploratory, descriptive or explanatory
Purpose	Research, teaching, or action/application
Data	Quantitative or qualitative
Format	Highly structured, short vignettes
	Unstructured or groundbreaking
Synthesis	Informal, empathic, or intuitive
	Formative, or method driven

Source: W. Scholz, O. Tietje, 2002

3.1.3 The framework of Robert K. Yin

¹¹⁵ W. Scholz, O. Tietje, 2002.

¹¹⁶ W. Scholz, O. Tietje, 2002..

¹¹⁷ R. Ronstadt, 1993.

¹¹⁸ Ibidem.

¹¹⁹ Ibidem.

¹²⁰ Ibidem.

¹²¹ W. Scholz, O. Tietje, 2002.

Robert K. Yin suggests techniques for organizing and conducting case study research successfully and proposes six steps that should be used:

- a) determine and define the research questions;
 - b) case study design;
 - c) data collection and analysis: preparation for data collection; data collection; data analysis;
 - d) case study report.
- a) The first step in case study research is to identify a research question. Following Yin, since the form of the question provides an important clue regarding the most relevant research strategy to be used, the case study strategy is likely most to be appropriate for “how” and “why” questions. The researcher establishes the focus of the study by forming questions about the situation or problem to be studied and determining a purpose for the study¹²². The research object in a case study is often a program, an entity, a person, or a group of people. Each object is likely to be intricately connected to political, social, historical, and personal issues, providing wide ranging possibilities for questions and adding complexity to the case study. In his/her investigation the researcher should use a variety of data gathering methods in order to produce that evidence that leads to the understanding of the case.

Literature review can offer an additional support for a better understanding of the research question identifying previous research and helping in refining the question. A more careful definition of the question lead also to a better understanding of the methodological tools that should be used to carry out the research.

- b) The second step is the case study design. In this case Yin identifies five relevant components¹²³:
- the research question;
 - its propositions, if any;
 - its unit(s) of analysis;
 - the logic linking the data to the propositions; and
 - the criteria for interpreting the findings.

As soon as the research question has been identified it is necessary to take into consideration the study proposition. Each proposition directs attention to something that should be examined within the scope of study¹²⁴. The study proposition, which is a critical factor in the case study, it is typically a system of action rather than an individual or group of individuals. The study proposition should lead to the fundamental problem which is the definition of the “case”(the unit of analysis).

¹²² R. K. Yin, 2003.

¹²³ Ibidem.

¹²⁴ Ibidem.

The definition of a unit of analysis is aimed also to identify the limits of the case study and so the limits of the data collection and analysis. The unit is the major entity that is analyzed in the case study and has to not to be confused with the unit of observation which is referred to the unit on which data are collected (i.e. a farmer)¹²⁵.

Having defined the first three components of the case study design the further step involves some more operative operations as the exploration of the relation between the collected data and the propositions and the definition of the criteria for interpreting the findings.

A complete research design foresees the previous five element as well as a theory. The development of a theoretical framework for the case study is an essential requirement in order to make the case study more scientific. “The use of theory, in doing case studies, is not only an immense aid in defining the appropriate research design and data collection but also becomes the main vehicle for generalizing the results of the case study”¹²⁶.

Throughout the design phase, researchers must ensure that the study is well constructed to ensure *construct validity*, *internal validity*, *external validity*, and *reliability*. Following Ying this tests can be defined as follow:

- *construct validity: establishing a correct operational measures for the concepts being studied;*
- *internal validity: demonstrates that certain conditions lead to other conditions and requires the use of multiple pieces of evidence from multiple sources to uncover convergent lines of inquiry;*
- *external validity: establishing the domain to which a study’s finding can be generalized;*
- *reliability: refers to the stability, accuracy, and precision of measurement. Exemplary case study design ensures that the procedures used are well documented and can be repeated with the same results over and over again*¹²⁷.

c) The third step related to data collection and analysis. As indicated also in the previous paragraph a variety of methods should be employed: direct and indirect participant observation, structured interviews, surveys experimental design, focused interviews, open-ended interviews, archival records, documents and scientific data from field and laboratory¹²⁸.

Among the major elements of the preparation for data collection there is the “case study protocol” which contains more than the survey instrument, it should also contain procedures and general rules that should be followed in using the instrument. It is to be created prior to the data collection phase.

¹²⁵ E. Babbie, 1997.

¹²⁶ R. K. Yin, 2003.

¹²⁷ R. K. Yin, 2003.

¹²⁸ Ibidem.

It is essential in a multiple-case study, and desirable in a single-case study. Yin¹²⁹ presented the protocol as a major component in asserting the reliability of the case study research. A typical protocol should include the following sections:

- an overview of the case study project (objectives, issues, topics being investigated);
- field procedures (credentials and access to sites, sources of information);
- case study questions (specific questions that the investigator must keep in mind during data collection);
- a guide for case study report (outline, format for the narrative).

The preparation for data collection will be evidently followed by data collection that usually comprehend six different kind of sources:

- documents;
- archival records;
- interviews;
- direct observation;
- participant-observation;
- physical artifacts.

These categories has obviously to be considered as extremely flexible since they will be different depending the specific characteristics of the case study.

The last step of this process will be data analysis and evaluation. Yin suggests three main analytic techniques: pattern matching (to compare an empirical pattern with a predicted one), explanation building and time series analysis. However, other authors as Stake proposes alternative strategies.

d) Reporting a case study means bringing its results and finding to closure¹³⁰. A case study report can vary depending on the purpose of the case study research. Techniques for composing the report can include handling each case as a separate chapter or treating the case as a chronological recounting. Some researchers report the case study as a story. During the report preparation process, researchers critically examine the document looking for ways the report is incomplete. The researcher uses representative audience groups to review and comment on the draft document. Based on the comments, the researcher rewrites and makes revisions. Some case study researchers suggest that the document review audience include a journalist and some suggest that the documents should be reviewed by the participants in the study.

3.1.4 Source of evidence and data gathering methods

¹²⁹ Ibidem.

¹³⁰ Ibidem.

Within the overall framework some specific source of evidence and data gathering methods have been used:

- 1) literature review: in this frame literature review is intended as the revision and the collection of all the available material on a specific subject;
- 2) secondary data analysis: so analysis of second hand data gathered from government documents, official statistics, technical reports, scholarly journals, trade journals, review articles, reference books, research institutions, universities, library search engines, databases, internet. Due to the lack of specific data and to the difficulties occurred to gather available data in BiH a specific section (5.1) has been dedicated to this issue.
- 3) open interviews: an open interview or conference does not follow a set sequence of questions like a structured interview. Instead the interview relies on discussion between the actors with questions arising incidentally;
- 4) survey: in the frame of the case study survey has been used: a) to gather information regarding the main actors of the agricultural sector of Republika Srpska in order to develop analyze the basic connections through the social network analysis; b) to gather additional information regarding farmers and small farms to gain a deeper insight into the production structures and conditions of farms with a particular attention on market opportunities and subsidies structure.
- 5) direct observations: in economics direct observations are usually considered as not consistent or barely reliable due to the fact that they are susceptible of heavy observer bias. But they are also the product of a richer understanding of the subject since they allow to study an event, institution, system, facility or process in its natural setting.

3.1.5 Field research

In the case of these research direct observation come out from the period spent on the field: between four to five month in Banja Luka (Bosnia Herzegovina) and several shorter periods in Sarajevo; moreover additional short periods have been spent in other cities and areas of the Balkans: Belgrade (Serbia), Novi Sad (Serbia), Skopje (Macedonia), Tirana (Albania).

Field research has evolved along the years, originally it was mainly used in anthropology and sociology, while more recently it has been adopted also to economics and other related fields.

Although, it is important to underscored that this field work is far from fulfilling the standards and the requirement of anthropological and sociological research (or let's say it is somehow far from the participant observation strategies), it is anyhow important to emphasis the benefits that a long

period on the field can give to a more comprehensive understanding of the specific situation that characterize Bosnia and Herzegovina.

The field period gave the opportunity to observe the functioning of several institutions and to gather a significant amount of specific information through visits to: governmental and non governmental institutions; international organizations; professional organizations; farmer markets; farms; events. To observe all day life, the general functioning of services, the functioning and the habits in social relations.

Glaser (1992) in defining the fundamental properties of his grounded theory method¹³¹ emphasizes that a researcher should be able to gather data and information from a wide and open list of sources: informal interviews, lectures, seminars, expert group meetings, newspaper articles, Internet mailing lists, television shows, conversations.

So a field period can be a significant, if not fundamental, tool in order to enrich the research with additional observation and considerations coming from a preferential observation perspective.

3.1.6 The system approach

The overall structure of the case study will take into account also the system approach¹³² as a framework for analyzing and describe the different interdependent components of a system that work in concert to produce some results.

The system approach allows to tackle the issues under study in a “holistic” vision, hence to take into consideration a set of interdependent or temporally interacting parts. Parts are generally system themselves and are composed of other parts, just as systems are generally parts or *holons*¹³³ of other systems.

Therefore the system approach is complementary to the micro-economic and sector approaches, inasmuch they adopt a partial and simplified vision of economic reality. According to the system approach, a system is formed by individual units with own peculiarities, defined by technical status (of economic, legal, organisational or other nature), functions and strategies, which conjointly determine mutual relationships, interactions and phenomena. In the system approach all the factors which are supposed to exert an influence on a given phenomenon are theoretically considered at the same time, according to the mutual relations. System thinking is a framework that is based on the

¹³¹ The grounded theory is a systematic qualitative research method, developed by Barney Glaser and Anselm Strauss, underscoring generation of theory from data in the process of conducting research.

¹³² This “applied definition” of system approach has been inspired also by the methodological framework used by M. Aragrande (Department of Agricultural Economics and Engineering of the University of Bologna) in building case studies to analyze agricultural subsectors.

¹³³ The term has been used for the first time by Arthur Koestler who proposed the word “holon” to indicate something that is simultaneously a whole and a part. Holon is a combination from the Greek “*holos*” that means whole, with the suffix “*on*” which, as in proton or neutron, suggests a particle or part.

belief that the component parts of a system will act differently when the systems relationships are removed and it is viewed in isolation. In other world any part will change and undertake a transformation both due to endogenous and exogenous factors¹³⁴.

In general, the adoption of the system approach requires outlining the main dimensions of the object of the analysis:

- the rules determining the phenomena and the relationships (of technical, social, economic, legal or other nature);
- the type of factors involved (technical, economic, institutional, social, cultural);
- the relevant level of the analysis (farm/firm, sector, system); and,
- the time perspective (short, medium, long term).

Given the nature of the study to be performed, its objectives and specific evaluation themes, the system approach applies to different stages of the study, from the conception of the overall methodology to the analysis of specific issues¹³⁵.

Following the rules of the system approach, the possibility to perform effective case studies depends on the clear delimitation of the system. Delimitation is mainly functional (identification of specific objectives, relations, issues to be investigated), and spatial (identification of the geographical level of investigation, generally national or better regional and local).

3.1.7 Agrarian System Analysis

Several additional concepts and definitions will be based on the methodological framework used for the analysis of agrarian system by several academic authors that performed their researches in developing, transition and emerging countries (M. Canali, 1994; M. Mazoyer, 1981, 2006; P. Groppo, 1999; A. Segrè, 1999).

An agrarian system is defined by Mazoyer as a way farmers exploit the environment that has been historically created by all the relations and interactions that occur between all of its social, economical and physical components (Figure 3.1). A system of production forces adapted to the

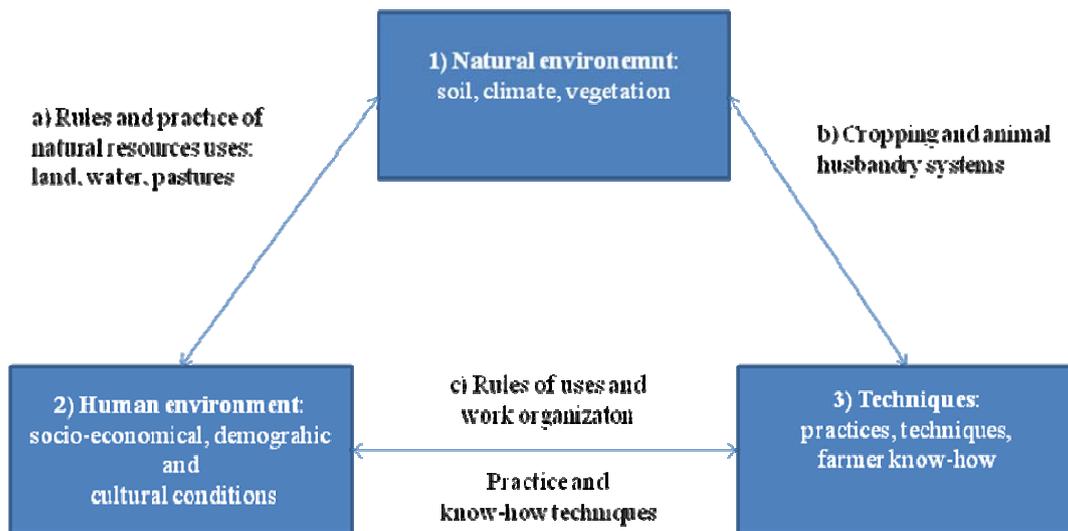
¹³⁴ F. Capra, 1996.

¹³⁵ The system approach firstly applies for the complete understanding of all the consequences potentially stemming from the variation of one of the elements of the system. The identification of the cause-to-effects chain linking the measure under study to their effects and related impacts is based on a system vision of the reality, mainly defined by legal (implementation mechanisms of the measures), technical (the agricultural production) and economic rules (as defined by the economic theory) which are effective at the level of the individual units (the farm), produce effects at aggregate level (agricultural sector) and on related systems (upstream and downstream sectors). The limit of the system are basically defined by the policy framework of the measures (in this view the intervention logic is the basic tool for the preliminary delimitation of the system) and by the general objectives of the evaluation process (analysis of effectiveness and efficiency, coherence and relevance of the measures). Once the system is defined, the relevant units of analysis are identified, as well as the relevant relationships, the phenomena and the material level of analysis.

bioclimatic conditions of a given space and responsive to the social conditions and needs of that moment¹³⁶.

The agrarian systems approach takes a historic perspective by taking into account the spatial and temporal limits of an agrarian system. It tries to understand the organization, the operation and the differentiation from the past, its evolution over the time. This in turn provide a better understanding of the complexity of the present dynamics, the socio-economic structures and the mode of exploitation of the ecosystem.

Figure 3.1. Relationships between the components of an agrarian system



Source: NAFRI, 2005

Mazoyer identifies several *holons* that combine together in an agrarian system:

- *the cultivated ecosystem: original environment and its historical transformations*
- *the production elements: tools, machines and the biological material (cultivated plants, domestic animals), and the social manpower (physical and intellectual) to manage them.*
- *the mode of transforming the environment resulting from i) and ii): reproduction and exploitation of the cultivated ecosystem.*
- *the social division of labor between agriculture, craft industry and industry which allow a) the reproduction of work tools, and b) the production of agricultural surplus and c) the satisfaction of other social groups, beyond the needs of the farmers.*
- *the exchange relationships between these different but associated sectors of the economy, the relations of ownership and strength which determine the share of the production work, of the production and consumer goods.*

¹³⁶ M. Mazoyer, 2006.

- *finally, the overall ideas and institutions, which allow the social reproduction: production and exchange relationships and the sharing of production*¹³⁷.

It is under this framework and following these considerations that the agrarian system analysis has been developed. As any system based approach this methodology investigate the relationship between the different components of the system. It moves from the general to the specific, using a holistic method, which respects a hierarchy of processes and determinants¹³⁸.

Without pretending to be exhaustive the following elements can be considered to be the basis for a agrarian system analysis:

- an accurate definition of the study area;
- a general to local scale, e.i. from the national to the local level. Like climate, local agricultural situations can be seen as the product of a general situation and local peculiarities.
- the analysis of the agro-ecological, technical and economic elements and their interactions;
- the investigation of the evolution of the system in an historical perspective;
- use of simple tools such as landscape and farmer's knowledge are the best and largest source of organized information;
- use of an iterative approach crosschecking information.

3.1.8 Social network analysis

- 6) social network analysis: S. Borgatti defines social network analysis (SNA) as the study of social relations among a set of actors, hence the mapping and measuring of relationships and flows between people, groups, organizations, computers, web sites, and other information processing entities. So the unit of analysis in network analysis is not the individual, but an entity consisting of a collection of individuals and the linkages among them. Network methods focus on dyads (two actors and their ties), triads (three actors and their ties), or larger systems (subgroups of individuals, or entire networks)¹³⁹. Social network analysis views social relationships in terms of *nodes* and *ties*. The nodes in the network are the individual actors and groups while the links show relationships or flows between the nodes. Research in a number of academic fields has shown that social networks operate on many levels, from families up to the level of nations, and play a critical role in determining the way problems are solved, organizations are run, and the degree to which individuals succeed in achieving their goals.

¹³⁷ P. Groppo, 1999.

¹³⁸ P. Groppo, 1999.

¹³⁹ S. Wasserman, K. Faust, 1994.

In the frame of this research SNA has been used in its simplest form, so as a map of the relevant ties and nodes of the agricultural sector of Republika Srpska.

The analysis has been characterized by the following phases:

- a) desk research to investigate and classify the main actors of the agricultural sector in RS;
- b) elaboration of a two-round questionnaire to send to the most relevant actors:
 - the first round will be aimed to collect an expert opinion regarding the main actors of the agricultural sector in RS;
 - the second round will be aimed to investigate the links among this actors.
- c) submission of the first round of the questionnaire, data gathering, analysis and cross checking with the list of actors made through the desk research.
- d) redefinition of the list of actors, envoy of the second round of the questionnaire, data gathering.
- e) data processing have been made through the *UCINET 6 social network analysis software* designed by S. Borgatti, M. Everett and L. Freeman¹⁴⁰.
- f) data has been organized in a actor-by-actor clique co-membership matrix¹⁴¹ where actors have been identified, corresponding to the institutions or entities all the respondent belongs to and, where a sort of collaboration exists between the agents, there is a “1” in the corresponding cell of the matrix; non-collaboration is shown by a “0” entry.

3.1.9 Field survey: linking farmers to institutions in RS

A survey based on a structured questionnaire¹⁴² has been leaded in order to overcome some of the constraints related to the scarcity of data and to gain a deeper insight into the production structures and conditions of farms with a particular attention on market opportunities and subsidies structure.

3.1.9.1 Preliminary and general considerations

The overall goal of the survey is a better identification of key farming and socio-economic characteristics of agricultural households and farmers. The survey has been considered also an essential tool to:

- define who is farming in RS;
- identify and elaborate a possible definition of farmer;
- have an additional source of information for policy analysis.

¹⁴⁰ UCINET 6: <http://www.analytictech.com/ucinet/ucinet.htm>.

¹⁴¹ S. Borgatti, M. Everett, L. Freeman, 1999.

¹⁴² The questionnaire has been prepared by and the survey coordinated by Renata Rakic (Agency for Extension Service of Republika Srpska), Gordana Rokvic, Department of Agricultural Economics, University of Banjaluka, Matteo Vittuari (Department of Agricultural Economics and Engineering, University of Bologna).

The selection of the sample has been particularly complicated since it has to be considered:

1. the lack of financial resources to lead the survey;
2. the lack of data since:
 - a. there is no clear definition of who is a farmer in RS;
 - b. there are not certain information regarding the total number of farmers in RS;
 - c. there is not a land register (a project to complete land registration is actually undergoing thanks the financing of the World Bank);
 - d. many farmers are working part time or full time in other sectors so in most of the case farming is a part time activity.

However due to the importance of the selection of the sample a specific section (x.x.x) has been dedicated to this issue.

The total sample comprised 215 farmers/small farms in 5 regions of RS. Since the administrative division of RS do not foreseen the regional level, but only the municipal level, the 5 regions have been selected following the territorial coverage of the Agency for Extension Service of Republika Srpska.

In selecting the survey method five main issues have been considered: costs, existent personal social network, facilities, personnel, and time. The only available resources were time and a quite developed social network, while facilities, funding and personnel were scarce or unavailable. In this frame the best option has been considered the use of a structured questionnaire because: a) it is a low cost solution; b) required staff and facilities are considerably low; c) it is possible to reach more respondents at the same time through group questionnaire; d) it usually guarantee a high rate of response due to the simultaneous presence of the interviewer and respondents; e) it allow a personal contact; f) it was the best option considering the language constraint.

The structured questionnaire has been developed following an iterative procedure based on several cross checking and experts revision and on a variety of sources (A. Agresti, 1997; F. J., Jr. Fowler, 1995; P. Guidicini, 1995, 1997; D. Silverman, 2002; A. Segrè, 1999; R. K. Yin, 1989).

The basic steps for the development of the questionnaire have been:

- a) definition of the basic content of the questionnaire, hence on the basis of the indentified basic information definition of the main sections: 1) farm structure; 2) production patterns; 3) technical and economical performances; 4) family structure; 5) income structure;

- b) formulation of the specific questions for any section. Question formulation has been based on the use of background literature and on the knowledge of the local situation;
- c) revision of the questions;
- d) elaboration of the questionnaire guidelines;
- e) test;
- f) revision of questionnaire and guidelines;
- g) expert revision;
- h) elaboration of a short guideline for the interviewers;
- i) translation of questionnaire, guidelines for respondents, and guidelines for interviewers from English into Bosnian/Croatian/Serbian.

The survey has been submitted from the beginning of March 2007 till the end April 2007, while data entry was completed from April to May 2007.

3.1.9.2 The target group

The agricultural sector of RS is still characterized by a dual structure with an extremely large number of individual farms (small farms) and a less significant number of agricultural enterprises and cooperative farms (commercial holdings). Data are scarce both for commercial holdings and small farms but while some reliable figure are available for commercial farms, small farms characteristics remain substantially obscure. Moreover, according estimation from the Institute of RS, individual holdings cover the majority of the harvested area and own largely the major number of livestock.

Table 3.2. Harvested area for the major crops in RS (data in ha)

	2004		2005		2006	
	AE and CF*	IH**	AE and CF*	IH**	AE and CF*	IH**
Wheat	4275	59093	3315	53134	4197	45414
Oat	507	16571	79	13629	137	13798
Maize	3104	137527	3651	138649	1823	140711
Potato	114	17075	136	16750	89	16140
Clover	126	26544	82	37302	n.a.	n.a.
Lucerne	254	21517	193	22324	n.a.	n.a.
Total	8380	278327	7456	281788	6246	216063
% of the total	30.1	69.9	25.8	74.2	28.0	72.0

*AE and CF= Agricultural enterprises and cooperative farms

**IH= Individual households

Source: RS Institute of Statistics

Table 3.3. Number of livestock and poultry heads in RS

	December 2005		December 2006	
	AE and CF*	IH**	AE and CF*	IH**
Cattle	4562	215503	6340	269240
Pigs	4054	529874	5467	590478
Sheep	4846	390671	3215	457375
Poultry	1587234	4025652	1042305	6304259

*AE and CF= Agricultural enterprises and cooperative farms

**IH= Individual households

Source: RS Institute of Statistic

Moreover according to the Living Standards Measurement Survey (LSMS)¹⁴³ at the BiH level more than half of the total population lives in rural areas, as well as the largest proportion of poor people – 83 percent of the poor. And according a survey leaded by IFAD in 2006¹⁴⁴ agricultural production for household consumption remains significant in all BiH. So, even if rural is not a synonymous of agriculture, it is correct to affirm that in BiH, and so in the two Entities, a high share of the rural population still find in the agricultural sector an additional source of income or an important tool to reduce the family expenditures for feed, whether it is not engaged full time or part time in it. The activities in rural areas other than activities connected with production of primary agricultural products (Rural Non-Farm Economics - RNFE) are important but are still not prevailing, so, in the case of RNFE, it appears more appropriate to use the definition of Davis and Pearce (2000)¹⁴⁵ that emphasize that the rural nonfarm economy does, however, encompass activities connected with agriculture, such as food processing, other kinds of small businesses, income from social transfers, interests, dividends, rents and remittances from part or full-time employment in urban areas.

So this survey focuses on agricultural households and more in general on small farms that considering the agricultural structure of RS largely represent the majority of farms.

However, as previously emphasized, it result particularly difficult to define who is a farmer in RS due to the lack a an updated cadastre (that negatively affect the functioning of the land market), to the lack of a farm register, to the fact that a large part of the production of small farms is used for self consumption or is sold on the market without any registration. Moreover the elaboration of a definition of who is farming and why is among the main aims of this research.

Some preliminary consideration to find a framework for this definition could lead to emphasize that rarely an agricultural household derives all its income from agricultural production since its source of income are in most of the cases mixed. Beside agriculture the household income is derived from pensions, other possessions, revenues, social welfare or other sources of regular earnings.

¹⁴³ LSMS, 2001.

¹⁴⁴ IFAD, 2006.

¹⁴⁵ Ibidem.

3.1.9.3 The survey area

Since the administrative division of RS do not foreseen the regional level, but only the municipal level, the 5 regions have been selected following the territorial coverage of the Agency for Extension Service of Republika Srpska (AESRS). The five regional offices of the AESRS are located (figure 3.2) in Banjaluka (Region 1), Doboj (Region 2), Bijeljina (Region 3), Sokolac (Region 4) and Trebinje (Region 5).

Altogheter there are 80 municipalities in RS. The survey covers 64 municipalities grouped as follow:

- Region 1 – Banjaluka: Banja Luka, Bosanska Kostajnica (known also as Srpska Kostajnica), Čelinac, Gradiška, Jezero, Kneževo, Kotor Varoš, Kozarska Dubica, Laktaši, Novi Grad, Oštra Luka (known also as Srpski Sanski Most), Prnjavor, Ribnik (known also as Srpski Ključ), Srbac, Teslić. (The following municipalities are not included: Krupa na Uni, Istočni Drvar (known also as Srpski Drvar, Kupres, Mrkonjić Grad, Petrovac, Prijedor, Šipovo.)

- Region 2 - Doboj: Bosanski Brod (known also as Srpski Brod or Brod), Derventa, Doboj, Modriča, Pelagićevo, Petrovo, Šamac. (The following municipalities are not included: Donji Žabar - was known as Srpsko Orašje -, Vukosavlje)

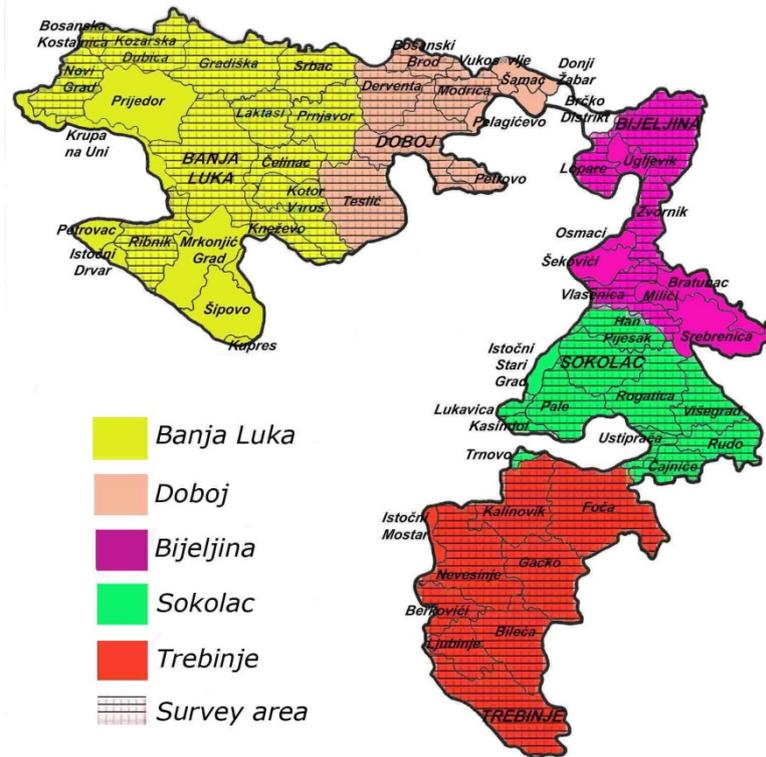
- Region 3 – Bijeljina: Bijeljina, Lopare, Vlasenica, Zvornik. (The following municipalities have been not included in the survey: Ugljevik, Bratunac, Milići, Osmac, Srebrenica, Šekovići)

Region 4 – Sokolac: Han Pijesak, Istočna Ilidža (was known as Srpska Ilidža), Istočni Stari Grad (was known as Srpski Stari Grad), Lukavica (was known as Istočno Novo Sarajevo and Srpsko Novo Sarajevo), Pale, Rogatica, Sokolac, Trnovo, Čajniče, Novo Goražde (was known as Srpsko Goražde), Rudo, Višegrad. The municipality of Istočno Sarajevo (known also as Srpsko Sarajevo) have been not included in the survey.

Region 5 – Trebinje: Berkovići, Bileća, Gacko, Istočni Mostar (known also as Srpski Mostar), Ljubinje, Nevesinje, Trebinje, Foča (known also as Srbinje), Kalinovik.

The practical reason behind this choice has been to have an administrative point of reference and also to have the chance to use the support of the specific local expertise of extension workers (involving them in focused interviews and asking them to verify the collected data).

Figure 3.2. Survey area



Source: author's elaboration

3.1.9.4 The sample and the data set

Due to the absence of a cadastre and of a farm register or any other source of classification or registration that would have been useful in the identification of farmers it has been necessary to identify a criteria to select the farmers. A first option was to include all rural household of a certain area considering that the majority of the rural population is involved in agricultural activities, but this option has been considered: a) too ambitious and out of the scope of this work, b) unsustainable considering several constrains as lack of financial support and the need to choose a different technique characterize by language and financial barriers as the personal interview.

A further option has been considered to be the use of extension services as a criteria. Or better it has considered that who is asking for administrative or technical advices and support to extension services is a farmer. The objection could be that there are also farmers that do not use extension services, but it is also true that a large majority of small farmers in RS use extension services since AESRS is significantly widespread on the entity territory and they cover all municipalities. Who is not using extension services are mainly agricultural enterprises and large cooperatives that usually employ agricultural engineers or rely on private consultants, and a minority of small farmers, predominantly elders.

Moreover it could also be emphasized that farmers using extension services are the most potentially open to change and innovation so the ones that potentially could move towards a more marked

oriented agriculture (obviously it has to be emphasized that a large number of small farms will be never interested to produce for the market due to size, financial constraints, lack of knowledge or human resources, and other constraints). Finally an additional element is that AESRS collects application for subsidies requests¹⁴⁶ so the small farmers that did ask for subsidies had to pass through the extension services. It is also true that not all farmers whom are using extension services are asking for subsidized due to a variety of reasons.

Hence, taking into account the RS environment (several results of the case study can be used to support this choice: administrative complexity, no census since 1991, internal migrations, lack of a cadastre, lack of data and information) and endogenous and exogenous constraints, to select farmers among whom is asking for support and advices to AESRS it has been considered as a honest and admissible criteria.

So farmers has been selected randomly among who is asking for advices and the number per region has been partially balanced considering: the total population and the total sown area of each region. The survey involved altogether 215 agricultural households/small farmers. Due to some of the previously presented constraints (lack of farmer registration, lack of an updated cadastre, outdated agricultural census) the estimation of the total population of reference is particularly difficult. In 2006 BHAS official statistics estimated the total agricultural population of RS at the 3.1% of the total population, while FAO point out the share to be at 3.5%, but these figures include mainly those officially employed in former state-owned big farms and cooperatives rather than private farms. So in this case it is probably necessary to underline that this data fails to describe the situation since a large part of the population, also actively employed in services or industry, works “part-time” in agriculture (in small private farms) in order to have an additional source of income. So official statistic fails in taking into account a large part of this “grey” agricultural labour. Several international agencies and research centers agree in suggesting significantly different figures: the World Bank LMSM 2004 points out a share of 19.4% for agricultural employment, that is particularly high in rural areas where reach the 35%; other authors (S. Bajramovic, H. Custovic 2005; S. Bojnec, 2005; S. Bajramovic 2006; Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Sesmard Project, 2007) suggest a even higher share with the agricultural labour force covering over the 40% of the total. So considering that the total population of RS is estimated at 1,487,785, the total agricultural population could range:

- from 46,000 to 52,000 considering BHAS and FAO estimations;

¹⁴⁶ At the moment this research has been carried out This procedure was under reform so it might be not the current one.

- from 288,600 to 595,000 considering estimations that take into account also the unofficial employment.

Table 3.4. Respondent area

Area	Respondent
Banja Luka	66
Bijeljina	21
Doboj	44
Sokolac	26
Trebinje	45
No response*	13
Total	215

* The “no response” category includes incomplete questionnaires.

Source: author’s survey

3.1.9.5 Additional technical issues

In order to complete the survey extension workers and students from the Faculty of Agriculture of Banja Luka have been involved in the dissemination phase and in particular:

- in a first phase extension workers and students from the Faculty of Agriculture of Banja Luka have been instructed on the objectives and on the contents of the questionnaire;
- in a second phase copies of the questionnaire have been provided to the 5 regional offices of Extension Service and to students;
- in a third phase extension workers and students have submitted the questioner to farmers during:
 - o seminars and training courses (leaded by extension workers),
 - o farm visits,
 - o office consultations.

The interviews have been characterized by several relevant (but expected) elements:

- generally, whenever issues directly related with individual farmers and their household have been encountered it has been slightly difficult to obtain farmers’ trust;
- as often occurs a particular constraint in completing the questionnaire has been related to the provision of financial data from the farmers.
- basically farmers do not record data so it is difficult to collect proper and exact information;
- several examples where farmers have been not interested for cooperation and have been not available to give any kind of data;
- in same case elder farmers have been not able to provide adequate data.

Collected data have been processed and analyzed through the SPSS program (Software Program for Social Sciences). Moreover a further step after data analysis has been a revision of the gathered data together with field workers from AESRS and other experts and researchers.

3.1.9.6 Limits of the survey

The survey do not aim to be exhaustive and authors are aware of the limits of this approach especially considering the selection of the sample. However the survey and the methodological approach that have been used are considered relevant according to the context of the analysis. In the case of RS additional and updated field information are a basic analytical resource considering the overall lack of reliable and updated data.

3.2 Case study design

As previously indicated it has to be emphasized that the overall framework of this case study benefits from the methodological approach to case study research proposed by R. Yin, from the conceptual framework of the system approach and partially from the agrarian system analysis. Within the overall framework some specific additional methodological tools (i.e. interviews; secondary data analysis; social network analysis; a field survey) have been used.

3.2.1 Research question

The overall research question that is at the base of this case study is *what is the role of agriculture in the overall development process of Republika Srpska*.

The transition process in the agricultural sector is still ongoing but what is the actual economic and social relevance of agriculture? How is far the market? Are the majority of farmers still subsistence oriented or are already market oriented? And probably even more important who are the farmers?

The transition process of Bosnia and Herzegovina and so of Republika Srpska has been particularly difficult and complex considering that the change from the planned economy to the market has been interrupted, slowed and modified by the 1992-1995 civil war. After a decade of “*evolution without development*”¹⁴⁷, characterized by the absence of a long term development strategy, the past few years seem to show more dynamism and to reveal a shift to long term planning. The present research would investigate the role of agriculture taking into consideration:

- the main features of the local agrarian systems;
- the main trends of the agricultural sector;
- the role of institutions;

¹⁴⁷ M. Palaret, 1997.

- the characteristics of the main actors (organization and farmers) of the agricultural sector and the links among them;
- the main elements that identify a farmer.

3.2.3 Unit of analysis

The main unit of analysis will be the agricultural sector of Republika Srpska. According to the system approach and to the agrarian system analysis the unit will be investigated through the analysis of several components: the agro-ecological and human components of the system and their interactions, the macroeconomic factors and their impact on the agricultural sector; the organization operating in the sector; the main trends and features of the agricultural sector; institutions (legislative framework and subsidy scheme); farmers.

3.2.4 Detailed methodology

The core part of the case study is organized in six sections that recall the main components that create the unit of analysis. According both system analysis and the agrarian system analysis all the components are interrelated and have a significant influence on each other.

The first section is aimed to take into consideration the geographical, pedological and environmental characteristics of BiH, while the second section is focused on human geography.

The third section is aimed to produce an economical background for the analysis of the other components.

The fourth section of this case study takes into consideration policies, institutions and governance in the agro-food sector, as well as the main actors which characterize the policy environment of the agricultural sector of the Entity. The fifth section is aimed to identify the main characteristics and features of agricultural and rural systems in RS.

The last (and more important) component that will be analyzed are farmers and their level of integration with the institutions. Are they linked with the market? Do they pay taxes? Are they registered as farms or have they registered their land? Do they apply for subsidies and do they get subsidies? Who they are, peasants or farmers?

Table 3.5. Case study methodology rationale

Detailed methodology			
Unit components	Logic linking unit to propositions (research question)	Analytical steps	Methodology
1. Historical development of the	The historical background and	1.1 An historical	Literature review;

<p>agricultural sector and main agricultural policies tools and reforms</p>	<p>the analysis of the historical development is a major element in the agricultural system analysis and moreover it is a necessary step to investigate and comprehend the comprehensive evolution of the different systems.</p>	<p>perspective: agriculture and agricultural policies in the Balkans until the fall of Yugoslavia 1.2 Sahibi and Kmets: Bosnia Herzegovina under the Ottoman rule 1.3 No Change without reforms: Bosnia Herzegovina between 1978 and 1918 1.4 Peasants and subsistence farming: the Kingdom of Yugoslavia between 1919 and 1944 1.5 A neglected Agrarian policy: the rural periphery in Yugoslavia between 1945 and 1990</p>	<p>secondary data analysis</p>
<p>2. Geographical and agro-ecological system</p>	<p>The analysis of the agroecological system is absolutely relevant in order to understand the physical constraints, the availability of natural resources, and the opportunities for the production of agricultural commodities.</p>	<p>2.1 Geographical position 2.2 Territorial morphology 2.3 Climate 2.4 Soil characteristics 2.5 Water resources 2.6 Biodiversity</p>	<p>Literature review; secondary data analysis</p>
<p>3. Human and agrarian system</p>	<p>Human presence and activities shape, modify and spoil the environment through the use natural resources. The level of anthropization play a significant role in the overall environmental equilibrium. Strong rural-urban migration trends represent a significant threat for land and environmental management and protection.</p>	<p>3.1 Population census and estimate 3.2 Population trends 3.3 Major concerns in demographic pattern: refugees, displaced persons and returns 3.4 Population structure 3.5 A strong rural character 3.6 Poverty: a predominantly rural phenomena</p>	<p>Literature review; secondary data analysis</p>

		3.7 A rural-urban symbiosis	
4. Socio-economic system	The analysis of the main macroeconomic factors is necessary in order to investigate and comprehend the importance of agriculture in the economy of Republika Srpska.	4.1 Institutional Settings 4.2 Socio-Economic Development in BiH 4.3 GDP evolution 4.4 Monetary and fiscal policy 4.5 Labour market 4.6 Trade 4.7 Privatization process 4.10 Foreign aid: the role of international donors in BiH	Literature review; secondary data analysis
5. Policies, institutions and governance in the agro-food sector	The analysis of institutions is essential to understand the institutional and policy framework: - How is agricultural policy elaborated and implemented? - There is any long term perspective in the elaboration of the strategy for agricultural development? - How is the subsidy system structured?	5.1 Institutional framework in the agricultural sector 5.2 Support services in the agricultural sector 5.3 Assistance to agriculture	Literature review; interviews; intervention logic
6. The agricultural sector: agricultural production and trade	An in-depth analysis of the main components of the agricultural sector is essential to comprehend the actual situation and the ongoing transformations.	6.1 Agriculture in the economy 6.2 The social role of agriculture 6.3 Agricultural labour force 6.4 Farm structure 6.5 Mechanization 6.6 Land ownership and market 6.7 Agricultural area 6.8 Agricultural production	Literature review; secondary data analysis;

		6.9 Agri-food trade	
7. Farmers and farming systems	Farmers are the main actor of the agricultural transformation process. But who are the farmers in RS? Are they still peasants (basically linked with subsistence production) or are they farmers so more oriented to produce for the market, and in general more linked with institutions. Do they find in agriculture a tool for social protection or a viable economic activity?	7.1 The agricultural sector in RS 7.2 Main actors of the agricultural sector 7.3 Assistance to agriculture: rule and aim of subsidies 7.4 Looking for farmers in RS: main findings of the survey	Survey; interviews;

Source: author's elaboration

4. The Forgotten Countryside: Agricultural Development in the Western Balkans. The Case of Republika Srpska

For hundred years the Balkans served as has a roadway for many people of varied racial strains who migrated from the steppes of Russia and from Asia Minor to Europe, with the result that national lines are notoriously vague. Each group, whether relatively pure or obviously mixed racially, jealously maintains its heroic legends, and feels that it has a mission to fulfill. Very often the groups have been encouraged in their demands by some interested Great Power, and too frequently missions of rival nationalism have clashed.

R. E. Crist (1940)

4.1 Agricultural Development in Bosnia and Herzegovina

4.1.1 An historical perspective: agriculture and agricultural policies in the Balkans¹⁴⁸ until the fall of Yugoslavia

4.1.1.1 Sahibi and kmets: Bosnia Herzegovina under the Ottoman rule

A great part of the Balkan Peninsula has been under the Ottoman rule for about five centuries, the last territory to obtain the independency from the Sublime Porte has been Kosovo which has been a separate province from 1869 until 1912.

According Djurdiev the Ottoman domination can be divided in two main periods: from the fourteen to the seventeenth century, with the incorporation of the Balkan aristocracy in the *limar sipahi* system (Ottomans left to the local nobles part of their lands, so that they continued to hold the land as *sipahi* - holder/Ottoman feudal cavalryman - of *timar* - a specific kind of landed fief¹⁴⁹ -; and from the seventeenth to the nineteenth century with the development of the *ciftlik* (farm – landed estate) *sahibi* (holder) organization¹⁵⁰.

Apart for the *timar/ciftlik* which was the base of the feudalism the Ottoman administration recognized other three kind of real property¹⁵¹:

¹⁴⁸ The use of the term Balkans is instrumental to the analysis. The focus of the analysis will be Bosnia Herzegovina, hence due to historical development of the Balkan Peninsula the Kingdom of Yugoslavia (already Kingdom of Serbs, Croats and Slovenes) and the Socialist Federal Republic of Yugoslavia (already Federal People's Republic of Yugoslavia) will be taken into consideration.

¹⁴⁹ A fief often consisted of inheritable lands or revenue-producing property granted by a liege lord to a vassal in return for a form of allegiance.

¹⁵⁰ P. M. Holt, A. K. Swynford Lambton, B. Lewis, 1977.

¹⁵¹ S. W. Sowards, 1996.

- The *miri* (or state land) consisted of all the land suitable for agricultural use where the ultimate owner is the state but the usufruct belongs, in most cases, to individuals. The state also owned forest lands, mountains and public areas such as roadways and market places.
- The *vakf* land that was tax-exempt property devoted to pious purposes or the support of institutions of public welfare such as hospitals or fire companies.
- The *mulk* land that was the true private property: an individual had right of full ownership and alienation on that land, as well as right to the usufruct of the land. Legally, it consisted of the land occupied by people's houses, or by gardens, vineyards and orchards – property improved by the owners. Essentially, when *timar* land was converted to private status it illegally became mulk land. *Mulk* property was exempt from state control: the state could no longer demand military service from holders of *mulk* and also found it hard to protect *reyah* (non-Muslim) living there from abuses like excess taxation. The growth of private property therefore damaged the power of the sultan, the central state and the military.

A consistent dispute has characterized the evaluation of the Ottoman feudalism as more or less backward than Slavic feudalism. However, it is true that in different forms Ottoman feudalism existed until well into the nineteenth century¹⁵² and that had to face the resistance and to merge with the patriarchal forms of life among the Slavs¹⁵³. Some authors called upon a regeneration of the Slavs patriarchalism. This has been emphasized also by Cvijic who underscored several elements that could be evaluated as indicators of the backwardness of the Ottoman feudal system: a revival of the *plemena* (tribes), of the *katun* (pastoral community), of the *knez* (village head) and of the *knezine* (local autonomies). Moreover the Turkish tax system favored the development and preservation of the *zadruga*: a household composed of two or more biological or small families, closely related by blood or adoption, owning its means of production communally, producing and consuming its means of livelihood jointly, and regulating the control of its property, labor, and livelihood communally¹⁵⁴. A partially different perspective is given by Palaret (1997) who argued that the Slavic patriarchal form has been one of the major factor in delaying the attempts of the Porte to establish an effective administration and that, “*far from being a drag on development, Ottoman rule made possible more progress than the arrangements which accompanied self-government*”¹⁵⁵ between the end of the Ottoman period and the first World War.

During the Ottoman rule (up to 1878) Bosnia Herzegovina was an imperial border land over which central government had a relatively weak control. As in the other part of the Empire the Muslim

¹⁵² W.S. Vucinich, 1955.

¹⁵³ M. Palaret, 1997.

¹⁵⁴ P. Mosely, 1943.

¹⁵⁵ M. Palaret, 1997.

elite ruled over subordinated groups. However unlike the majority of Muslims in other countries where they were ethnic Turks or Albanians, most Bosnian Muslim were descendant of the Christianized people of Medieval Bosnia, and preserved much of their south Slavic culture, including their language.

The base of the Muslim power in Bosnia Herzegovina was the control over landed estate and the lack of land property rights given to non-Muslims. The conservation of this feudal privilege (even if with significant modification along the years) over the land has been the cause of server tensions between the province and the central government. The Bosnian-Muslim elite claimed several times over the years for a stronger autonomy from the central government, but the Porte was willing to regain a wider control over the province. The resistance of the Bosnian-Muslim elite in holding the attempt of the central government to implement a reform has been a significant example of this struggle that ended in 1851. However along the years several changes occurred even if the *siphai* and the *kapetans* (military administrators) were increasingly trying to transform their fiefs into *ciftlik* (recognized by the Ottoman administrators) and to maintain the power over the peasants. The pressure for change was not only pushing *siphai* to transform their fiefs into *ciftlik*, but also to ask heavier contributions to the *kmets* (cultivators who have received a life lease from a *siphai*). Originally *kmets* had to concede around one-fifth of their crop to the *siphai*, but this share increased any time government eager was increasing. The situation became particularly bad up to 1851 when the modernization and the administrative change started to be implemented also in Bosnia Herzegovina. The *Tanzimat* (the reorganization of the Ottoman Empire) was based upon the belief of the Ottoman elite that the old religious and military institution were no longer meeting the needs of the empire in the modern world. With the *Tanzimat* non-Muslim were allowed to own land, to join the army, the per capita tax on non-Muslim citizen was abolished, and a comprehensive reorganization and set of reform was foreseen. New land rights, following the 1848 decree of Tahir Pasha, were implemented through the 1859 special law on land: the *Safer* Law.

During the last decades of the Ottoman rule the agricultural production of Bosnia Herzegovina was dominated by livestock production that accounted for more than the 50% of the total farm output.

Table 4.1. Bosnia Herzegovina: sectorial farm output in late Ottoman period

Year	Livestock production	Crop production
1865	51%	49%
1869	64%	36%
1873	62%	38%

Source: author's elaboration on M. Palairret estimations

Although the production was dominated by livestock Bosnia Herzegovina's exports was significantly diversified and based mainly upon crops production (maize, wheat, plums, tobacco), while agricultural imports were mainly formed by coffee, sugar and rice, Altogether Bosnian agricultural production under the Ottoman Empire was particularly low even in comparison with the other countries of the region, but it is also true that Bosnia under the Ottoman rule did not fall in an economic collapse even in the last years of the Porte domination.

4.1.1.2 No change without reforms: Bosnia Herzegovina between 1978 and 1918

The Austro-Hungarian occupation was the result of a peasant uprising in 1875, which led also to the Russo-Turkish War of 1877-78 and so to the Treaty of Berlin. Although Austro-Hungarian troops entered in Bosnia during august 1878 formally the province remained un-annexed until 1908. So somehow the Ottoman influence remained strong for other two decades after the end of their occupation due also to the choice of Austro-Hungarians to basically administer Ottoman institutions. This is particularly evident in the agrarian sector where the relations between landlord and *kmets* continued to be based on the 1859 Safer law. The major changes that were immediately promoted by the new administration to show goodwill and to settle civil unrest were a modest reduction of the taxes for farmers and the promise to elevate tenants (*kmets*) to the status of free farmers. Even if the *kmets* gained the opportunity to leave their landlords with the establishment of the Safer Law, this was basically impossible at that time due to the lack of alternative opportunities. Prior to 1878 there was almost no industry in Bosnia except a few small mines and even with the new administration industry remained partially neglected also due to the interest of Austrian and Hungarian lobbies that were aimed to delay the rise of potential competitors. So tenants remained anyhow tied to their land (to leave they had also to pay an indemnity to their landlords) and during the 35 years from 1878 to 1913, less than a third of the tenant families left the land.

Moreover many tenants worked tiny kitchen gardens that produced too little to live on, even before turning over half the produce as taxes. In the Balkans the average size of farm considered sufficient to support a family was between 7 and 8 hectares while in Bosnia in 1906 almost the 48% of the tenants (Muslim free) farms where 5 hectares or less¹⁵⁶. Moreover the problem of land availability became even worst considering population growth: Bosnia Herzegovina grew from 1.1 million in 1878 to also 2 million in 1914¹⁵⁷.

Basically the Austro-Hungarian administration promoted several technical improvements in farming but never foresee the implementation of a real and comprehensive agrarian reform. The land question characterized the all period between 1878 and 1914. The authorities promoted several

¹⁵⁶ S. W. Sowards, 1996.

¹⁵⁷ S. W. Sowards, 1996.

times the gradual dissolution of the *ciftlik*, but they had to face the strong will of Muslim to do not lose their rights and control over their land. This is shown also by the lobby created by Muslim landlords within the Bosnian assembly in 1910. The lobby asked for ending the fixed crops division principle in favor of dividing it according to local conditions and custom, for limiting the extent of familiar holdings in order to settle more families on each plot and to push them to farm more intensely in order to increase the value of the share-rent.

So there was no land reform and civil unrest was never completely settled down due to the Austro-Hungarian. The fear to have to face a muscular reaction in the case of a reduction of the power of landowners and the fear that an eventual expropriation of the *kmets* could drive to politically disastrous effects confined the Austro-Hungarian administration to step out of the problem without any relevant change of decision. By 1906 in Bosnia Herzegovina there were 188,883 free holdings, but also 96,609 *kmet*¹⁵⁸.

Beside land property and feudal right issues and the problems in the landlords - *kmets* relations (the *zadruga* was still representing a relevant institution) an additional issue for Bosnia's administrators was represented by property rights in forests. *Landesregierung* (province administrators) converted the forests formerly held as Ottoman *miri* into state property and continued to manage peasants cutting rights.

Agricultural production increased significantly in terms of value in the first years after 1878 due to a significant expansion in cattle raising and to several external elements introduced by the Austro-Hungarian administration as the use of money taxation and the access of peasants to more consumer goods¹⁵⁹. If at the beginning of the Austro-Hungarian period livestock production was still covering more than the 60% just as in the Ottoman period, the overall sectoral farm structure change along the years with grains and other crops ranging between 45% and 50% .

Table 4.2. Bosnia Herzegovina: sectoral farm output in the Austro-Hungarian period

Year	Livestock	Livestock production	Grain	Other crops	Total	Total value (1910=100)
1879	37.6	32.5	22.1	7.8	100	100
1882-85	37.0	27.6	24.1	11.3	100	150.6
1886-90	35.3	24.7	26.0	14.0	100	194.8
1891-95	31.5	21.4	30.9	16.2	100	218.2
1896-1900	33.7	22.1	27.1	17.1	100	235.1
1901-05	33.9	21.8	27.0	17.3	100	225.9
1906-10	33.7	21.1	25.7	19.5	100	227.3
1911-1914	31.4	19.1	30.9	18.6	100	251.9

Source: elaboration on M. Palairet estimations

¹⁵⁸

¹⁵⁹ M. Palairet, 1997.

Although the total farm output increased along the years it is not clear if also the per capita farm output followed the same trends due to the significant rate of growth of the population. Some authors assume that the farm output per capita level during the Austro-Hungarian period could be not so faraway from the level in the Ottoman period around 1860s¹⁶⁰.

As far as import and export are regarded it has to be emphasized the important raise of pig (pigs were raised mainly for the external market) and cattle export to central Europe. Trade level remained significant along all the Austro-Hungarian period although several interruption caused by veterinary matters lead to market closures.

4.1.1.3 Peasants and subsistence farming: the Kingdom of Yugoslavia between 1919 and 1944

After WWI Bosnia was forced into the South Slav Kingdom of Serbs, Croats and Slovenes (Kingdom of Yugoslavia from 1929). The overall area of the South Slav Kingdom was significantly heterogeneous due to the different historical events and economic and social structure of its territories. This was particularly evident in the agricultural sector where at list three different agrarian structures were coexisting: small holding in Montenegro and Serbia; a parafeudal structure in Bosnia Herzegovina and Dalmatia; large estates in Croatia-Slavonia, Slovenia, and in the territories annexed to Serbia after WWI. The feudal relationship (abolished in 1848 in a large part but not all territories as it is evident in the case of Bosnia Herzegovina) was abolished with the Constitution signed in 1921 that established that who was in the position of *kmets* or *tchiftchiye* (a Serbian institution similar to the Bosnian *kmets*) had to be considered as the free owner of the land he/she was cultivating without to pay any compensation. Moreover the Constitution of 1921 further established also the expropriation of large estates and the distribution of the land among who were cultivating it. Overall after the 1919-1931 land reform around the 70% of Yugoslav farms were under 20ha (Table 4.3).

Table 4.3. Results of the first Yugoslav land reform of 1919-31

Number of holdings	Size	Total area covered
1,348,149	up to 5 ha	5,193,981 ha
:	5 to 20 ha	2,441,343 ha
49,314	20 to 50 ha	1,388,570 ha
6,255	50 to 200 ha	485,944 ha
494	200 to.500 ha	146,549 ha
208	over 500 ha	389,824 ha

Source: M. Pailaret, 1997

¹⁶⁰ M. Pailaret, 1997.

Although the agrarian reform had been finally foreseen and implemented there is a common element that link the Ottoman administration, with the Austro-Hungarian, with the Kingdom of Yugoslavia: taxes. *Kmets* or free peasants have been a main source of taxation for any administration with no regards for their low standards of life. Somehow administrations were obsessed by the will to keep the peasants poor and dependent: it was the case of the Bosnian-Muslim elite that did will to preserve their feudal rights; it was the case of the Austro-Hungarian Administration that start to ask for monetary taxes linking the requested quota according to tariff prices without a real proportion with the production and without a real understanding of the major constraints of Bosnian farmers (e.g. transaction costs to bring the products to the market); it was also the case of the Kingdom of Yugoslavia that had to find resources also in consideration of the reduced power and financial capacity of landlords.

According Hoffman (1959) before 1945 Yugoslavia was predominantly a land of peasants, subsistence farming and primitive productive methods. However this picture probably fail in taking into account the diversity of the Yugoslav territory: the more modern structures of Croatia, Slavonia, Slovenia and Vojvodina; the more backwards structures of Bosnia and Herzegovina, Kosovo and Macedonia. This north – south disparity in productivity and also living conditions (e.g. the communication network was better in the regions that has been under the Austro-Hungarian domination) was worsened also by the fact that the modernization of the economy was largely confined to the north. However it is true that by the outbreak of war in 1941, Yugoslavia was still a poor and predominantly rural state, with more than three-quarters of economically active people engaged in agriculture and a high rate (for European standards) of illiteracy people in rural areas.

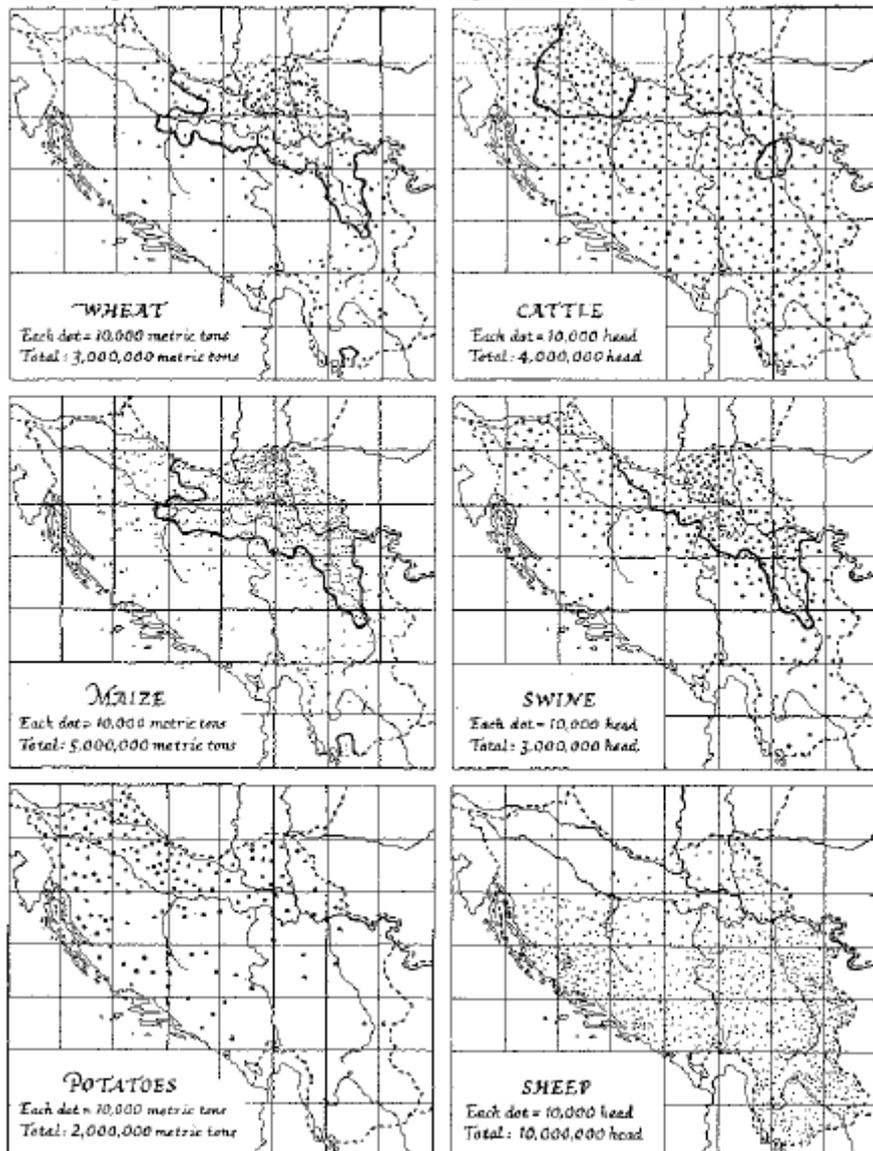
However the land reform and the opportunity peasants had to own their land created the basis for the development of a rather free market (although peasants had practically no influence on the formulation of government policies either in general or in regard to agriculture¹⁶¹) which leded in some cases to a shift from a mixed production (typical of the subsistence farming) to a more specialized one in accordance with natural and market conditions. This tendency gave a significant contribution in producing some sort of specialized agrarian regions of production (Figure x.x): cereals and pig breeding in the Danubian plain; cattle and pig breeding in Upper Croatia, Slovenia and Central Serbia; poultry and eggs in the densely populated areas of Western Yugoslavia; orchards and vineyards in Slovenia, Dalmatia, Bosnia, Northern Serbia; various commercial crops as tobacco in Herzegovina and Macedonia, hemp in Vojvodina and medicinal plants in Dalmatia¹⁶². However sheep and cattle breeding and certain production as apple, cabbage, maize, potatoes, peppers, plums and tomatoes were widely widespread in all the regions.

¹⁶¹ E. E. Kraehe, P. E. Mosely, E. O. Stillman, E. Koenig, N. Spulber, J. Tomasevich, I. T. Sanders, 1958.

¹⁶² R. Bicanic, 1944.

Within the Kingdom Bosnia Herzegovina was one of the most backward region with a parafeudal structure that has been reformed only with the 1921 constitution. Bosnian agricultural sector was characterized by a large share of small plots (often too small to be economically efficient), subsistence farming, outdated production methods, lack of capital, lack of capacity to save and invest, heavy taxes (as in the other regions)¹⁶³. This backwarded situation was particularly heavy due to the territorial morphology of Bosnia and to the lack of infrastructures that was at the base of the high transaction cost that Bosnian farmers had to afford to have access to markets.

Figure 4.1. Agricultural production zones in the Kingdom of Yugoslavia in 1937



Source: R. Bicanic, 1944

¹⁶³ G. W. Hoffman, 1959.

4.1.1.4 A neglected agrarian policy: the rural periphery in Yugoslavia between 1945 and 1990

4.1.1.4.1 Yugoslavia at the end of WWII

The Yugoslavia coming out from the WWII was a predominantly agrarian country with a large majority of the population engaged in the agricultural sector (72.7 percent in 1948)¹⁶⁴, technologically backward-looking, hardly economically and socially hit by the war (1,7 million death, 250.000 ha of forests and nursery gardens heavily damaged or destroyed, 175.000 ha of arable land made unusable, serious damage for the 31% of vineyards and the 60% of the land and facilities used for animal breeding, significant damage in all economic sectors, infrastructure, education and healthcare facilities)¹⁶⁵, and with the need to legitimate the new political elite.

Moreover this agrarian character is emphasized by the role of peasants in the society and by their essential contribution in the liberation process. Until WWII peasants have been not merely an economic category (people occupied in agriculture) or a social class (landowners as the farmers or proletarian agricultural laborers), they have been the expression of a culture that found its basis on the *zadruga* and on the related traditional customs and social behaviors¹⁶⁶. Several authors (S. Clissold, 1969; Colakovic R., D. Jankovic, P. Maraca, 1965; M. Dogo, 1982) underscore that the influence of the Yugoslav Communist Party (Kpj¹⁶⁷) has been not crucial since the uprising had on the one hand a more spontaneous character and on the other hand had been leaded by the abovementioned traditional values. However if during the liberation war the Kpj did not control the peasants, it is also true that this relationship is changed along the years with an increasing influence achieved by the Kpj and a considerable enslavement of the peasants towards the communist party¹⁶⁸.

Even in the post war period, despite its dramatic shift from agricultural to non-agricultural activities, Yugoslavia remained linked to the soil in many ways. The country's agricultural population still numbered 4.3 million in 1981; of that number, 2.2 to 2.9 million tilled small private plots, including about 1.5 million people who held regular jobs elsewhere. Even before the economic turmoil of the late 1980s, many urban citizen, especially retirees with inadequate pensions, were used to integrate their income farming small plots in the cities periphery or in the nearby villages.

¹⁶⁴ D. Milkjkovic, 1989.

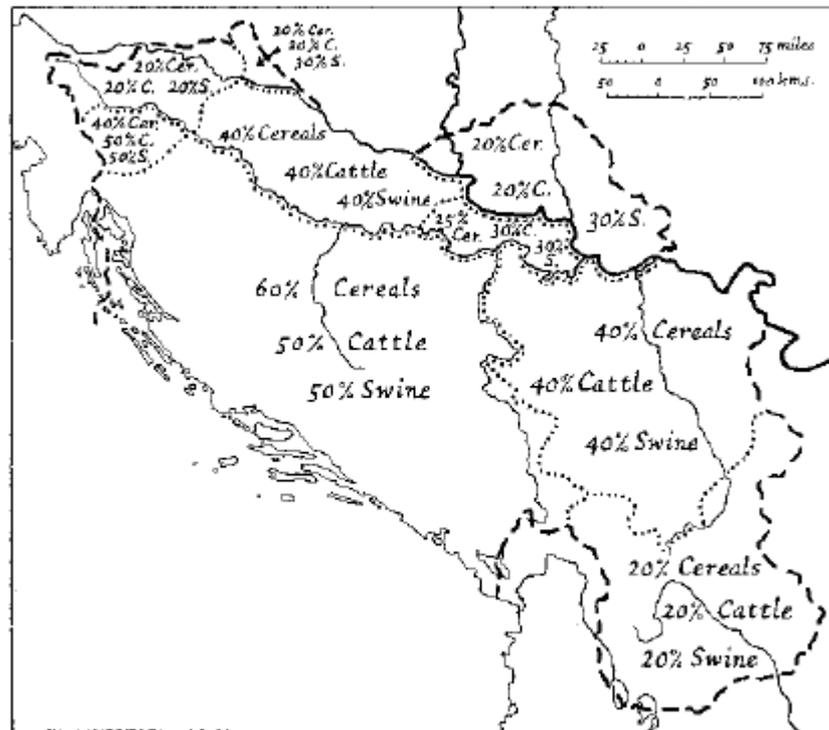
¹⁶⁵ S. Bianchini, 1988.

¹⁶⁶ R. Bicanic, 1944.

¹⁶⁷ *Komunistička partija Jugoslavije* in Serbo-Croatian.

¹⁶⁸ M. Dogo, 1982.

Figure 4.2. Decrease of production: harvest 1943 compared with average harvest 1935-1937



Source: R. Bicanic, 1944.

4.1.1.4.2 The legacy of the prefeudal era

The situation of Yugoslavia at the end of WWII had the specific characteristics of the backward agrarian society with a division in landowners, rich farmers (kulaks¹⁶⁹), small farmers, peasant and agricultural workers¹⁷⁰. Generally the peasant question has been one of the major issues during XIX and XX centuries in all the agricultural based countries, so there are a number of elements that are common to all these agrarian economies. Rural and peasants life have been forced towards a significant change by several external factors as the European agrarian crisis at the end of the nineteenth century (1873-1895), the first world war, the world agrarian crisis of 1929-1934, the second world war¹⁷¹.

Nevertheless Yugoslavian agrarian change presented also several significant specific elements:

- due to the Ottoman domination the Balkans has been closed to the general European agricultural development so that there were few of the large estates and manors characteristic of the feudal Europe and instead there were residues of the prefeudal era, such as communal ownership and extended families (G. Enyedi, 1967);

¹⁶⁹ The term kulak mainly refers to rich peasants in late Russian Empire, Soviet Russia and Early Soviet Union. However it has been used by many authors also to indicate best established farmers in other former socialist countries.

¹⁷⁰ S. Bianchini, 1988.

¹⁷¹ R. Bicanic, 1944.

- it has been characterized by a poor use of natural resources. G. Eneydi classified Eastern European countries at the end of WWII in three groups: 1) medium industrial developed countries (i.e. Czechoslovakia and East Germany); 2) rural-industrial countries (i.e. Hungary and Poland); countries characterized by the use of few natural resources and that failed to challenge the supremacy of subsistence farming (Romania, Yugoslavia);
- it was the result of a variety of different ethnic groups and diverse historical, cultural, economical traditions, and that was particularly evident in the countryside that was characterized by deep regional differences (Bianchini, 1988);
- the war and the consequent great economic changes lead to one of the major change in Yugoslav rural organization: the disintegration of the *zadruga*. The reasons behind this evolution can be partially found in the impoverishment (caused also by the pressure of the market economy), in the impossibility of continuing economic life in the old way regulated by traditional customs, in the possibility of earning money in the industrial sector (R. Bicanic, 1944);
- a significant element, that is common also to other agrarian based society but not so often in a so relevant amount, was the peasant debt. Before the war the debt reached 6 billion dinars about the 33% of the gross agricultural value of that period¹⁷².

4.1.1.4.3 The agrarian reform of 1945

Before the end of the war it was already clear that the redistribution of the land and the reduction of the peasant debt were among the main pillars of the policy lines identified by the Communist Party. Moreover in 1940 the Party was emphasizing also the need to be engaged in the reallocation of the land to landless farmers and in the campaign for the abolition of taxes for the poorest farmers and for the rise of taxes for rich farmers (kulaks) and landowners¹⁷³.

The only controversy, that started to characterize the internal debate at the end of the conflict, was related to the inviolability of the private property that was indicated also as one of the main principles of the partisans during the first meeting of the Avnoj¹⁷⁴ in November 1942. Moreover the relevance of this debate was based on the one hand of the possible reaction of farmers (the most numerous social group) that were not open to a renounce to private property and on the other hand to the policy lines indicated by the Soviet Union (were the collectivization process abolished private property). The debate involved all the major leaders as Mosa Pijade (among the main executives of

¹⁷² Bianchini, 1988.

¹⁷³ Bianchini, 1998.

¹⁷⁴ Antifašističko Vijeće Narodnog Oslobođenja Jugoslavije (Anti Fascist Council of National Liberation of Yugoslavia).

the Party), Kardelj and Tito, and ended up with a decision to maintain the private property till certain extent confirming and formalizing this decision also through an official Directive signed by the Military Council and the Avnoj Presidency. The recognition of the private property was a fundamental element also considering that the farmers involved in the liberation war were not only peasants and small farms but also the kulaks that gave a significant material contribution supplying food and other goods¹⁷⁵. These elements permit to understand why the Communist Party considered the urgency of an agrarian reform and why they decided for a reallocation of the land, aimed to assign the land guaranteeing the private property and confiscating the land to certain categories, instead of a nationalization.

Because of the choice to reallocate the land, before starting with the implementation of the reform, it was needed on one side to clear up the legislative framework from the laws and the decisions made during the Kingdom of Yugoslavia and the period of occupation, and on the other side to solve the uncertainty of property rights caused by the war and by the confiscations during the German occupation. These two constraints were solved ensuring new legal basis for the new system, since the Communist Party recognized the previous agricultural legislation as not coherent with its ideals, and fixing a limit of time within which any citizen had the chance to claim his/her property reestablishing the situation as it was before the German occupation.

The land Reform was based on Law on Land Reform and Colonization of 23 August 1945 that foreseen the confiscation of¹⁷⁶:

- all holdings exceeding 45 ha of cultivable land;
- holdings of 25-30 ha cultivable land or 45 ha overall land leased to tenants or exploited by hired labor;
- holdings owned by religious institutions exceeding 10 ha cultivable surface;
- holdings owned by corporations, banks, or other legal entities;
- properties vacated during the war.

The law provided foreseen also the expropriation of lands exceeding 3-5 ha of non-peasant holdings, and of the lands exceeding 25-35 ha of peasant holdings even if cultivated without hired labor. In addition to these provisions further confiscations regarded the land of German nationals, members of the German ethnic minority, Yugoslavs convicted with war crimes or collaboration with the enemy.

According the law compensation was provided only for expropriated and not for confiscated properties and land was distributed among landless farm workers and owners of inadequate peasant holdings, primarily among partisan fighters, victims of fascist terror, and veterans of World War I,

¹⁷⁵ S. Bianchini, 1988.

¹⁷⁶ S. Stankovic, 1958.

as well as orphans and families of these persons. The Law admitted to the benefits of the land reform also non-peasants provided that they pledged to settle on the land¹⁷⁷.

The reform reduced the maximum limit of the size of the holding to 35 hectares, but different limits were fixed depending the quality of the land (in mountain areas the limit was higher) and the size of the family¹⁷⁸. The land retained by the state (2.6% of the overall confiscated land) was organized mainly as state farms that has to serve as source of food staff and raw material production under the direct control of the state.

The total amount of confiscated land covered 1,566,000 ha¹⁷⁹, and according the first census carried out after the reform (1953), the reorganization resulted in a private sector dominate by small holdings: over the 65% of the farm were small then 8 ha (Table 4.4).

Table 4.4. Farm structure in the private sector according the 1953 census

Size	Number of holdings	Total area covered
Up to 8 ha	1,735,271	5,501,000 ha
8 to 20 ha	255,875	1,952,000 ha
Over 20 ha	36,837	981,000 ha

Source: 1953 Census

If the pulverization of and property can be considered as the major result of the rules and the restriction foreseen by the reform there are additional provision that have to be taken under consideration: the federal colonization and the peasant debt relief.

The federal (since involved citizens from all the republics) colonization has been a migration process organized by the government to allocate to family of farmers land and property that have been abandoned during the war or, in a residual part, confiscated during the reform process. The colonization took place between 1945 and 1946 involving almost 45.000 families that had to move to the selected plots, mainly located in the attractive Vojvodina.

The other provision that has to be taken into consideration is the peasant debt that has been basically deleted by the Communist Party with two decisions:

1. any debt lower than 5.000 dinars had been cancelled;
2. any debt higher of 5.000 dinars had to be reimbursed, but the post-war dinar was evaluated as 10 pre-war dinars so that the value of the loan decreased so much that refunding the debit became a sort of a symbolic gesture.

¹⁷⁷ S. Stankovic, 1958.

¹⁷⁸ M. Palaret (unpublished manuscript).

¹⁷⁹ S. Stankovic, 1958.

4.1.1.4.4 The 1947-1951 Five Years Plan and the break-up with Russia

Apart for the land reform and the debt relief the Government stated to introduce other instruments and policy tools.

From April 1945 a Decree established that the Federal Economic Council had the authority to decide upon prices and compulsory delivery:

- prices were fixed for all the major agricultural products (wheat, rye, barley, oats, corn);
- the compulsory delivery consisted of the determination of the quantity of products that had to be delivered to each Republic at the established price (the Republics had the responsibility to allocate the products to the local administrations).

This Decree allowed peasants to produce the quantity of products needed for their self consumption and to sell they leftovers of maize and oat on the free market at a controlled price.

Then in 1947 the first Five Year Plan (1947-1951) was launched with a first year of implementation strongly focused on the development of heavy industry and infrastructure (mainly railroads). Most of the manpower needed for the realization of these objectives was taken from the agricultural sector that due to the rapid flowout of human resources had to face a fall in the production level. The consequent scarcity of agricultural supplies had been handled through a strengthening of the economic control that lead in 1948 to the rationing of the basic agricultural commodities. The consequent strong rise of the prices of agricultural products generated a situation in which the kulaks had the chance to hire labour on more favorable terms than those offered by the states. This situation exasperated the regime which wanted to acquire the kulak surplus itself¹⁸⁰. With 1948 began also the obsession of the regime against the kulaks. One the one hand kulaks were too valuable to confiscate their land, but on the other hand the government started a political campaign aimed to discredit the kulaks in front of small peasant. The regime propaganda was emphasizing that kulaks controlled the market and that they were at the origin of the food price inflation¹⁸¹.

The propaganda against the kulaks had also the aim to lay the ground for Collectivization. In the reality the Yugoslav Communist Party had never renounced collectivization as the ultimate objective of its agricultural policy. According Bokovoy (1998) in 1947-1948 the regime change its position moving from the honor to the promise to peasants to the honor to ideology hence choosing a Stalinist approach to the countryside and creating the myth of an undifferentiated and loyal peasantry unwavering in its willingness to surrender their local and parochial interest to those of the new state. Substantially there was a breakup of the wartime alliance between the Communist Party and peasants.

¹⁸⁰ M. Palaret (unpublished manuscript).

¹⁸¹ M. Palaret (unpublished manuscript).

The Soviet-style agricultural collectivization program began in Yugoslavia in 1949 and ended less than four years later with controversial results. This failure was probably linked on one side to the failure of the Five Year Plan that had to be cut back due to the Soviet blockade, consequent to the break-up between Yugoslavia and Russia, that led to a serious shortfall in resources (investment to the heavy industry were anyway protected while agricultural provisions were cut)¹⁸², and on the other side to peasants resistance¹⁸³. Before the end of the collectivization program the collective sector was covering only the 18 percent of the arable land¹⁸⁴.

4.1.1.4.5 The reform

In its peculiarity the Yugoslavian self-management presented, all along its almost five decades of life¹⁸⁵, internal tensions (i.e. the nationalistic pressure of Croatia in the 70s; the Kosovar-Albanian students protest in 1981), social tensions (i.e. with a significant rupture between the workers and the self-management institutions¹⁸⁶), a significant criticism and pressure to reform the economic and political system (i.e. Kardely was emphasizing these problems already in the 60s). These contradictions of the Yugoslav self-management were specific of those societies that express a political and socio-economic system that on the one hand do not deny the existence of diverse interests but that on the other hand aim to create the condition to not allow that interest to become public¹⁸⁷.

These tensions resulted in the anticipation (considering other socialist countries) of several significant reform packages. So after the failure of the collectivization process the principals Yugoslavian leaders (i.e. Moshe Pijade, Marshal Tito and Edward Kardelj) decided to undertake the way of self-management. The agrarian reform of 1953 and the self-management became the pillars of the new policy of social transformation. The 1953 reform gave to agriculturalist the chance to farm on privately owned plots, however a large number of families has to remain in the cooperatives due to the fact that the resources they owned before the end of WWII were not sufficient for their subsistence. In this frame on the one hand was promoted the return to private property (i.e. with the limit of 10ha in lowlands and of 15ha in hilly areas) and on the other hand it has been necessary to support the cooperative sector that in 1956 accounted only for the 3.6% of the total agricultural area. The application of the self-management to the state owned farms turned out in the creation of *social properties* or *agrokombinats* administered directly by the workers, who

¹⁸² M. Palairt (unpublished manuscript).

¹⁸³ M. K. Bokovoy, 1998.

¹⁸⁴ E. E. Kraehe, P. E. Mosely, E. O. Stillman, E. Koenig, N. Spulber, J. Tomasevich, I. T. Sanders, 1958.

¹⁸⁵ The Socialist Federal Republic of Yugoslavia was the Yugoslav state that existed from the end of World War II (1945) until it was formally dissolved in 1992 (*de facto* dissolved in 1991 with no leaders representing it).

¹⁸⁶ S. Bianchini, 1982.

¹⁸⁷ M. Dogo, 1982.

made decisions independently (though in accord with the general plans of the republics and the federal Government) concerning the life of the enterprise. During the 1970s food production was increasing at a rate of seven percent a year; the standard of living, of culture and of consumption had risen greatly in all the republics, and the federal system was able to give preferential treatment to the historically less developed regions. This particular combination of nationalism, struggle against bureaucratization, self-management, industrialization and agricultural development had given the system solidity, broad support, capacity for resistance and adaptation to adverse world conditions¹⁸⁸.

So the *agrokombinats* were directed and administrated by workers and in particular by worker organizations that were usually members of larger work organizations aimed to coordinate the production of certain raw materials and supply energy or equipment. This work organizations maintained close relationship with the communities (municipalities), which, according to the constitution, had to look out for the interests of self-management. Consequently, in an emergency, if the organizations were not able to function (in a case of constant deficit, for example), the communities had the chance to intervene.

During the 70s *agrokombinats* employed the 15 per-cent of Yugoslavia's agricultural workforce while the other 85 percent worked on small private parcels.

This has restricted the highly productive middle peasants' holdings, lowering the average productivity of a given period. The productivity per ha of the *agrokombinats* was greater than that of the small farmers, but the productivity per working person were higher among the small fanners. According to official statistics, the grain yield per ha in the socialized sector during the 1971/75 period was 4.48 t/ha while in the private sector it was only 3.44 t/ha. In the 1976/80 period it had risen to 5.09 t/ha in the socialized sector and to 4.49 in the private sector. The difference in productivity between the two sectors was thus narrowed and by the 1990s the productivity of both sectors became quite close¹⁸⁹.

The association of the more dynamic small producers with the socialized sector has been in large part responsible for this rise in productivity in the small-farmer sector. In effect, of the 2.6 million peasant families, 15 percent cooperate with other families or with enterprises in the social sector, and the *agrokombinats* contribute to the rise of productivity by means of the provision of seeds, technical and scientific advice, and access to the market.

The agrarian structure in 1980 emphasizes the relative importance of the *agrokombinats* and of the social property sector. According to the census, 34.1 percent of small property owners live on less than one ha, 30.3 percent on one to three ha, 14.8 percent on three to five ha, 12.4 percent on five to

¹⁸⁸ G. Almeyra, 1983.

¹⁸⁹ Ibidem.

eight ha, and nine percent have eight to 10 ha, (the legal maximum). It is evident that many of these private farmers (those who have small parcels) obtain part of their income from the nonagricultural work of one or several members of the family or live (especially the aged) at subsistence level on the production of their small gardens.

Looking on the policy side from 1953 price policy and price formation became important policy instruments in socialist Yugoslavia, elements of market economy began to be introduced and the compulsory delivery were relaxed or abolished between 1952 and 1965. If until 1965 prices of predominantly agricultural products were kept low by the predominantly administrative means of legal maximum and fixed prices, while the prices of most industrial final products were free of control. Since 1965 prices were formed through the market with the aim to eliminate the price distortions which had arisen in the preceding periods. Yugoslavian agricultural policy was based on a set of prices: guarantee price (an intervention price to be used if prices collapsed); minimum price (support price); and producer guide price (to ensure stable production conditions and eliminate market disturbance). The price structure within the Market Organizations of the CAP was overall not so different.

The number of agricultural products for which support prices and producers guide prices were set varied somewhat over the years. For the following products of particular social interest they were reset annually and uniformly for the whole of Yugoslavia: wheat, grain, maize, rice, sunflower, and other oil seeds, sugar beet, tobacco, cottonseed, wool, fresh milk and meat (these products accounted for the 75-80% of marketed agricultural production). Prices of remaining agricultural products, especially some fruit and vegetables, some grains and feed crops, and calves, sucking pigs and lambs were in principle to be set freely by the market.

Price policy and price setting up to 1984 were regarded as of particular interest, along with other economics policy measures (investment, credit, subsidy policies, others) in carrying out the planned development of agriculture. They were supposed to ensure the steadily and harmonious development production towards the following objectives:

- adequate supplies of food products for the population and the necessary agricultural raw materials for manufacturing industry;
- building up appropriate stocks of food products and livestock feed;
- increasing exports of agricultural products and foods.

Table 4.5. Major changes in price policy and formulation during the 1946-1990 period

Year/Period	Measures
1946-1952	Use of compulsory deliveries with prices fixed by the Federal Economic Council (at a low level to the disadvantage of peasant farmers)
1952-1965	Abolition of the compulsory delivery and introduction of elements of market economy (persistence of negative policies for farmers)
1965-1991	Prices were formed through the market
1967, 1972, 1980, 1984	Publication of a new law on prices

Source: elaboration of the author

4.1.2 Geography, land and environment in Bosnia and Herzegovina

4.1.2.1 Geographical position

Bosnia and Herzegovina is bordered on the north, west, and south by Croatia, on the east by Serbia and on southeast by Montenegro. Moreover on the southwest BiH has a narrow access to the Adriatic Sea (13 km near Neum-Klek).

The total surface of BiH covers the area of 5,113 thousand hectares. In terms of orography, Bosnia and Herzegovina is a hilly-and-mountainous country. Of the total surface area, 5% are lowlands, 24% hills, 42% mountains and 29% karst. The average altitude above the sea level is about 500 m (0 m at the seacoast and 2387 m at the highest peak of the Maglić mountain)¹⁹⁰.

BH belongs to the group of Southern Central Europe and comprises the greatest part of Dinaric mountain area. Its northern part is mostly plain and borders with southern enclaves of Panonia lowlands, while the rest represents flat country connected with discontinuous karst fields and valleys of bigger rivers. The courses of rivers are directed north-south and belong to the Black Sea and the Adriatic Sea basins area. The only big river on the south is the Neretva river which makes the border of the greatest part of Herzegovina-area, while the name Bosnia is connected with considerably larger central, eastern and western part of the country. The river Sava and the Neretva cross the high mountain barrier of Dinarides and connect Panonia lowlands with the Adriatic and greater Mediterranean region. These two river valleys are connected with the river Sava and form natural and economic connection with the countries of the Alps and the central Balkan system. Mostar, Sarajevo, Zenica and Tuzla regions were formed inside them as the most economically developed regions in the country.

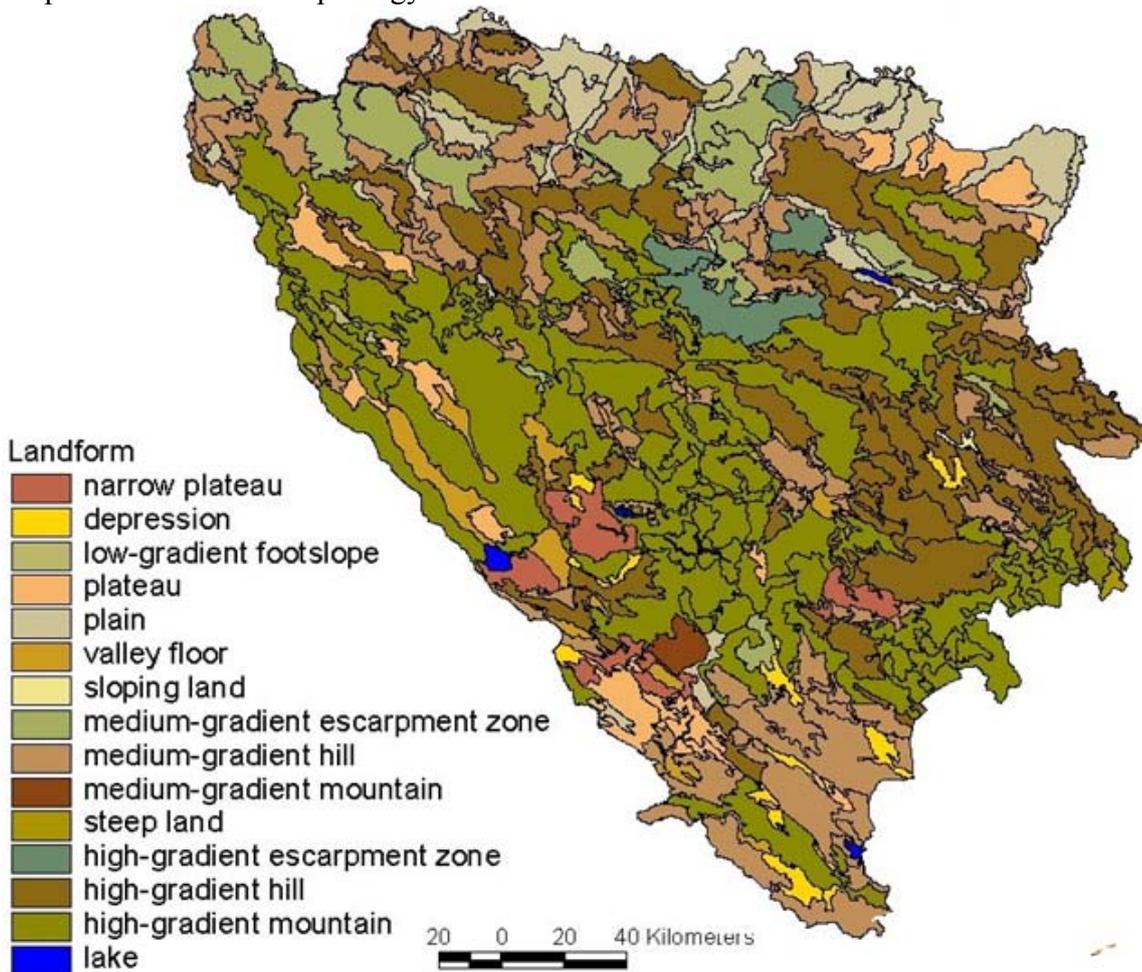
4.1.2.2 Territorial morphology

¹⁹⁰ Government of Bosnia and Herzegovina, 2002.

According to geomorphologic regionalization, high BiH belongs to west part of Mediterranean zone of younger mountain ranges. It is characterized by numerous mountainous chains which are cut by narrow valleys in central and northern part, with bigger and smaller rivers' basins, and in eastern and western part by pour rivers and karst fields. The highest mountain top is Maglić, 2,386 meters above sea level, in the municipality of Foča which is one of the highest zones with 2,000 m above sea level. Overall BiH has still 52 mountain tops which are above 1,500 m.s.l.

Production aspect determines BiH as a country with very developed relief because only about the 16% of its total area has an inclination lower than 13%. If that degree of ground inclination is taken as a limit point for tolerant application of mechanization in agriculture, then its efficient use in BiH can be applied at the area of only 500 thousand hectares located in lowland, river valleys and hill plateaus, karst fields in Mediterranean region or boundary parts and plateaus of West-Bosnian and Herzegovina mountains¹⁹¹.

Map 4.1. Territorial morphology of BiH



Source: PLUD – FAO (<http://www.plud.ba>)

¹⁹¹ Phare-Ace Project n. P96-6020-R, 1997.

In terms of land use the 49,3% of the land is cover by forests, the 26,3% by pastures, the 11,5% is arable area, the additional 13,9% is covered by bare land, shrubs, built-up areas, wetland, water bodies, rock outcrops, open mines and quarries. It has to be emphasized that the 28,6% of the 590.304 hectares of arable land is abandoned or predominantly abandoned (see Table xx) mainly due to the proved presence of landmines which are predominantly concentrated on the internal border between Republika Srpska and the Federation of Bosnia and Herzegovina, and in the areas of Sarajevo, Zavidovići and Brčko. The 67,7% of the BiH suspected mined areas are located in FiBH, the 29,7% in RS and the remaining 2,6% in the Brcko District¹⁹² which is in absolute terms the area with the highest concentration of mines due to its strategic and symbolic significance¹⁹³.

According the BHMIC (Bosnia Herzegovina Mine Action Center) the situation is particularly difficult for the rural population, who often depend economically on access to mine contaminated land. BHMIC data shows that in BiH the 85% of the communities are rural and almost 50% of impacted communities are tied to agriculture and exploitation of natural resources¹⁹⁴. However the data shows that the presence of landmines in BiH decreased considerably in the period from 1996 to 2007, more precisely going down from the original 4,000 km² of suspected mined surface in 1996 to 1,889 km² in 2006¹⁹⁵.

Table 4.6. Land use in BiH in 2003

Land cover/Land use	Area (ha)	%	Agriculture/Fishery Land (ha)
Arable land - Rainfed	30.419	0,6%	30.419
Arable land - Irrigated	3.436	0,1%	3.436
Abandoned Land	1.903	0,0%	1.903
Permanent Crops	414	0,0%	414
Pastures	409.592	7,9%	
Forests	1.746.645	33,9%	
Shrubs	333.887	6,5%	
Bare Land	160.771	3,1%	
Rock Outcrops, Open Mines and Quarries	10.145	0,2%	
Built-up Areas	42.207	0,8%	

¹⁹² Bosnia Herzegovina Mine Action Center, 2006.

¹⁹³ M. Bolton, 2003.

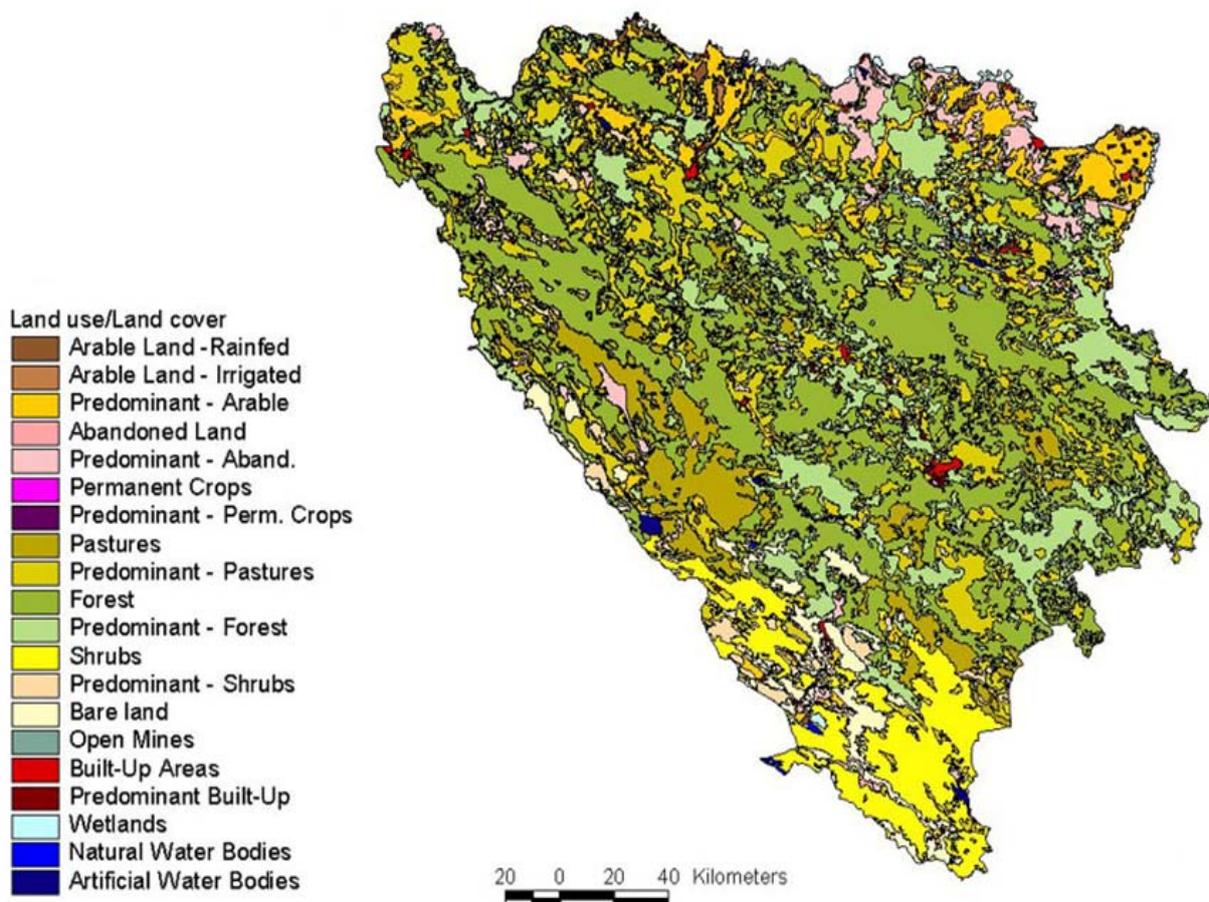
¹⁹⁴ Bosnia Herzegovina Mine Action Center, 2007.

¹⁹⁵ Ibidem.

Wetlands	32.538	0,6%	
Natural Water Bodies	3.733	0,1%	
Artificial Water Bodies	17.071	0,3%	
Predominant Rainfed	358.691	7,0%	358.691
Predominant Forests	793.127	15,4%	
Predominant Pastures	947.993	18,4%	
Predominant Permanents Crops	70	0,0%	70
Predominant Abandoned Land	166.910	3,2%	166.910
Predominant Built-up Areas	7.658	0,1%	
Predominant Shrubs	85.989	1,7%	
Total	5.153.197	100%	590.304

Source: PLUD – FAO (<http://www.plud.ba>)

Map 3.2. Land use in BiH in 2003



Source: PLUD – FAO (<http://www.plud.ba>)

4.1.3.3 Climate

As far as the climate is regarded Bosnia and Herzegovina is a transitional region where Mediterranean and continental influences meet. The dynamic relief, directions in which its mountain massifs stretch, the hydrographic network, the vicinity of the Adriatic Sea, have all created conditions for wide mosaic of climate types on a relatively small territory.

In accordance with territorial morphology in inner part of BiH there are a few types of continental climate; temperate continental (middle European) on the north, premountainous in hilly regions, and then as a specificum - the climate of karst fields, mountainous and premountainous climate. In the region of BH where the sea effects are felt, some special forms of Mediterranean climate appear, so-called Adriatic and changed Adriatic climate¹⁹⁶.

4.1.2.4 Soil characteristics

Geologically, the highlands of Bosnia and Herzegovina are to be regarded, in both their orographic and tectonic character, as a continuation of the South Alpine calcareous belt. Greater part of Herzegovina and West Bosnia belongs to the zone of high karst and on the south-west side pre-karst zone leans onto the high karst zone. Bosnian zone follows, characterized by thick classic rocks layers (upper jura, chalk). Then, there is Bosnian serpentine zone separated, oliphite zone of complex tectonic construction¹⁹⁷.

It can be said that geologic background is more important pedogenetic factor than climate. BiH is a mosaic of different types and sorts of soil. Most present types of soil in BiH are brown, base saturated (25.7%) and acidly brown soil (25.3%). These middle deep types of soil, of middle production capabilities are spread in central BiH parts. In the south and south-west there are lithosoils and regiosoils (14.7%), while acid and phosphorous-poor lesivirated soils of middle fertility (9%) are in the middle, western, and to a lesser degree, in the north-west Bosnia.

Most present among hydromorphologic soils are pseudogley soils (5.5%), which can reach very high results both in farming and fruit growing cultures, when using hydrotechnical and agrotechnical melioration on this soil. In the valleys of the rivers Bosnia, Drina, Neretva, Una and Sana alluvial soils are present (4.9%) with good production possibilities¹⁹⁸.

4.1.2.5 Water resources

Water is absolutely a significant and strategic resource for Bosnia and Herzegovina. The fresh water basins are a key natural resource in Bosnia and Herzegovina. There is about 1250 L/m² of precipitation per year in the territory of Bosnia and Herzegovina, which means that the overall

¹⁹⁶ M. Canali, 1997.

¹⁹⁷ Ibidem.

¹⁹⁸ Ibidem.

volume of precipitation is 64,000 million m³ of water or 2,030 m³/s. Of the total water that falls on the territory, about 1,155 m³/s, or in average 57% runs off the territory of Bosnia and Herzegovina. All rivers in Bosnia and Herzegovina are mainly of low quality, because they receive a high untreated wastewater pollution load from urban areas and manufacturing industry. Only the upper courses of some rivers (Una, Sana, Neretva) contain good quality water.

The waters of Bosnia and Herzegovina are split between the Danube River Basin District and the Adriatic Sea Basin. The axis of the Danube River Basin is the river Sava which represents the second largest sub-basin of the Danube river basin and runs along the northern BiH border in the length of 335 km. The Sava basin is formed by all bigger BiH rivers: the Una with the Sana, the Vrbas, the Ukrina, the Bosnia and the Drina, all of them having basically the same nival-pluvial regime. Maximal water levels are in April when snow melts intensively. The exception is only the river Bosnia with maximal water levels in March. The lowest river water levels of this basin are in August and September. It should be also pointed out that all affluent rivers run to the Sava with great fall and have remarkable hydroenergetic potential, as well as polymorphous, polygenetic and polyphase valleys.

When we speak about the Adriatic basin it should be pointed out that, because of the prevailing karst material, only the river Neretva makes its way to the Adriatic Sea, but the waters of karst fields (4,400 km) after long underground flow come out as sources and springs in near-to-coast area or in the sea itself as wells. The Neretva has the identical nival-pluvial regime as other rivers of the Black Sea basin.

BiH is abundant in sources and wells. Crack and contact sources are the most present very powerful wells appear in the area of karst fields there, some of them form the rivers Bosnia, Trebišnjica, Pliva, Buna and Bregava. Great natural resources, not sufficiently examined and used, is in mineral waters predominantly used as drinking and curing waters in health-resorts.

Contrary to the wealth in rivers, there are few bigger lakes in BiH. The biggest of them is Boračko Lake in the south-east of Konjic. Many lakes (glacial) are in the highest mountain areas in the middle, east and south east Bosnia. Some travertine lakes were formed on the rivers Una and Pliva. Artificial water accumulations were constructed on the Drina, Neretva, Trebišnjica and Vrbas.

All rivers in Bosnia and Herzegovina are mainly of low quality, because they receive a high untreated wastewater pollution load from urban areas and manufacturing industry. Only the upper courses of some rivers (Una, Sana, Neretva) contain good quality water.

4.1.2.6 Biodiversity

BiH is also particularly rich in terms of biodiversity. Its geographical position at the crossroads of many various bio-geographical influences and routes, and a large number of ecologically diverse habitats, distributed in a mosaical pattern, gave rise to the development of a great diversity of species, both in the overall territory of Bosnia and Herzegovina and in some of its regions¹⁹⁹. Relatively many species are endemic. Forests, that as previously underlined cover the 50% of the whole territory, are the major ecosystem. "*Bosnia begins with the forest*," says a native proverb, "*Herzegovina with the rock*"; and this account is, broadly speaking, accurate, although the Bosnian Karst is as bare as that of Herzegovina.

Two large floral regions intersect, as many things do, in Bosnia and Herzegovina. The Euro-Siberian and Mediterranean floral regions have created such a diverse bio system that well over half the total number of flowering plants on the Balkan Peninsula can be found here. It has been established that there are 3,700 kinds of flowering plants, 60 kinds of ferneries, 250 kinds of moss, 250 lichen kinds of ferneries, 250 kinds of mushrooms. So, BiH vegetation is characterized by great variety of communities and it shows marked horizontal and vertical diversity.

4.1.3 Human and agrarian geography

4.1.3.1 Population census and estimate

The absence of any reliable census during the Ottoman period can be considered as a major gap in the demographic knowledge of the Balkan especially considering that the Sublime Porte ruled on the 76% of the Balkan Peninsula till 1877-78, and on the 37% subsequently. However according Palairret (1997) it has to be noticed a population decline from 1650 to 1834, as suggested by hearth tax records²⁰⁰, which has been followed by a significant scaling up till the end of the century: according Palairret estimations Bosnia reached 1.1 million in 1850 and 1.26 million in 1870.

The first modern census has been completed by the Austro Hungarian Administration in 1879 and it has been subsequently updated in 1885, 1895 and 1910. With the kingdom that has been formed on December 1918 under the name of Kingdom of Serbs, Croats and Slovenes further population census has been performed in 1921 and 1931 while the register planned for 1941 could not be made because of the Second World War outbreak. After the Second World War BiH Census has been

¹⁹⁹ Government of Bosnia and Herzegovina, 2002.

²⁰⁰ In common historic and modern usage, a hearth (Har-th) is a brick- or stone-lined fireplace or oven used for cooking and/or heating. Hearth tax records are important to local historians as they provide an indication of the size of each assessed house at the time. The numbers of hearths are generally proportional to the size of the house. The assessments can be used to indicate the numbers and local distribution of larger and smaller houses. Not every room had a hearth, and not all houses of the same size had exactly the same number of hearths, so they are not an exact measure of house size (Wikipedia).

completed in 1948, 1953, 1961, 1971, 1981. The 1991 has been only partially completed because of the 1992-1995 war and no further census has been planned after since that moment²⁰¹. Actually, because of the absence of an updated census and because of the scarce reliability of municipality data, there is not a unique consensus regarding the total figure of BiH population. Basically population estimate ranges significantly depending the source: the European Commission suggest a range between 4,0 and 4,5 million people; the UNFPA, the United Nations Population Fund, as well as the World Bank, FAO and other UN organizations reported a total population 3,9 million in 2007²⁰²; the BiH State Statistical Agency reported a population of 3,1 million in 2005²⁰³.

Table 4.7. Population Number in Bosnia and Herzegovina (1879-1991)

Year of Census	Administration	Total Area km ²	Total Population Number	Population Density (inh./km ²)
1879	Austro – Hungarian	51,199	1,158,164	22.6
1885	Austro – Hungarian	51,199	1,336,091	26.1
1895	Austro – Hungarian	51,027	1,568,092	30.7
1910	Austro – Hungarian	51,027	1,898,044	37.2
1921	SHS	51,200	1,889,929	36.9
1931	SHS	51,564	2,325,555	45.1
1948	SFRY	51,129	2,565,277	50.1
1953	SFRY	51,129	2,847,790	55.7
1961	SFRY	51,129	3,277,948	64.1
1971	SFRY	51,129	3,746,111	73.3
1981	SFRY	51,129	4,124,256	80.7
1991	SFRY	51,129	4,377,033	85.6
2007 (Estimate)	BiH	51,066	3,900,000 to 4,500,000	71.0

SHS: Kingdom of Serbs, Croats and Slovenes
SFRY: Socialist Federal Republic of Yugoslavia

Source: author's elaboration from various sources

4.1.3.2 Population trends

Up to 1914 the Balkans has been characterized by a particularly low population density and by a large majority of rural settlements, so it is coherent with the figures to describe the Balkans mainly as a rural territory. After 1914 population density and urban population grew rather more rapidly than under the Ottoman Empire and the Austro Hungarian Administration, thought from a low base level²⁰⁴. This figures are coherent also for Bosnia and Herzegovina that after 1914 has been characterized by an even more intense increase of the total population and of population density

²⁰¹ Initial steps have been taken to prepare a population census in 2011. The lack of data is a serious handicap for policy design and implementation in the country.

²⁰² UNFPA, 2007.

²⁰³ D. Meredith, 2007.

²⁰⁴ M. Palairat, 1997.

then in the rest of the Balkans. The significant growth trend that has distinguished all the XX Century (except for the period just after the I World War) has been blocked by the three-year long war that followed the declaration of independence of April 1992. According the 1991 census the total population of Bosnia Herzegovina at the time was 4,38 million (the highest figure never reached by population in BiH) with a density of 85.6 inhabitants per square meters (see Table 4.7). Moreover, before the war, apart for the main urban centers as Sarajevo, Mostar or Banja Luka, the major part of the settlement was rural with a large number of small villages relying on farming related activities. The war changed completely this landscape and geography. The United Nations High Commissioner for Refugees (UNHCR) assessed that, by the beginning of 1996, about one million Displaced Persons were spread out all over the country, while 1.2 million were Refugees abroad. Of course, this movement strengthened the urban population to the detriment of the rural one.

4.1.3.3 Major concerns in demographic pattern: refugees, displaced persons and returns

A characteristic which make BiH fairly different from any other country in transition is the 1992-1995 war which have left behind numerous displaced people and refugees. UNHCR estimates indicate that between 2,2 and 2,6 million persons (around the 50% of the total population at the time) have been forcibly displaced during the war²⁰⁵. By the end of October 2006, 1,015,394²⁰⁶ former refugees and internally displaced persons (DPs) have been recorded as having returned to their pre-war homes and municipalities in BiH. Recorded returns include some 457,194 so-called minority returns, as opposed to the 558,200 so-called majority returns who returned to municipalities where their own constituent people of BiH are in a numeric majority²⁰⁷. Of the total, 442,687 were refugees who had fled Bosnia and Herzegovina, and 572,707 had been forcibly displaced inside the country. Nearly three quarters of the total (736,228) returned to the Federation of Bosnia and Herzegovina (Federation) and one quarter (257,784) to the Republika Srpska (RS)²⁰⁸. Some 21,382 have also returned to the Brcko District²⁰⁹.

These return figures provide a clear indication that the demography of BiH has been altered as underscored by the Annex VII of the General Framework Agreement for Peace in BiH, which emphasized the right to return for all those displaced during the war, although a definite assessment of the demographic composition of the population in BiH will only be possible once a new census has taken place.

²⁰⁵ UNHCR Offices in Bosnia and Herzegovina, 2007 (1); UNHCR, 2006.

²⁰⁶ UNHCR Offices in Bosnia and Herzegovina, 2007 (1).

²⁰⁷ UNHCR Offices in Bosnia and Herzegovina, 2007 (2).

²⁰⁸ UNHCR Offices in Bosnia and Herzegovina, 2007 (1).

²⁰⁹ Ibidem.

Despite the drastic drop in return figures, a significant number of persons still remain displaced in the region. This includes some 47,000 refugees from BiH still residing in neighboring Serbia and Montenegro, down considerably since the end of 2004 with the majority of those deregistered having opted for local integration/naturalization, as well as some 2,500 in Croatia²¹⁰. Some 185,500 internal Displaced Persons are still registered as applicants for the status of displaced person within BiH²¹¹.

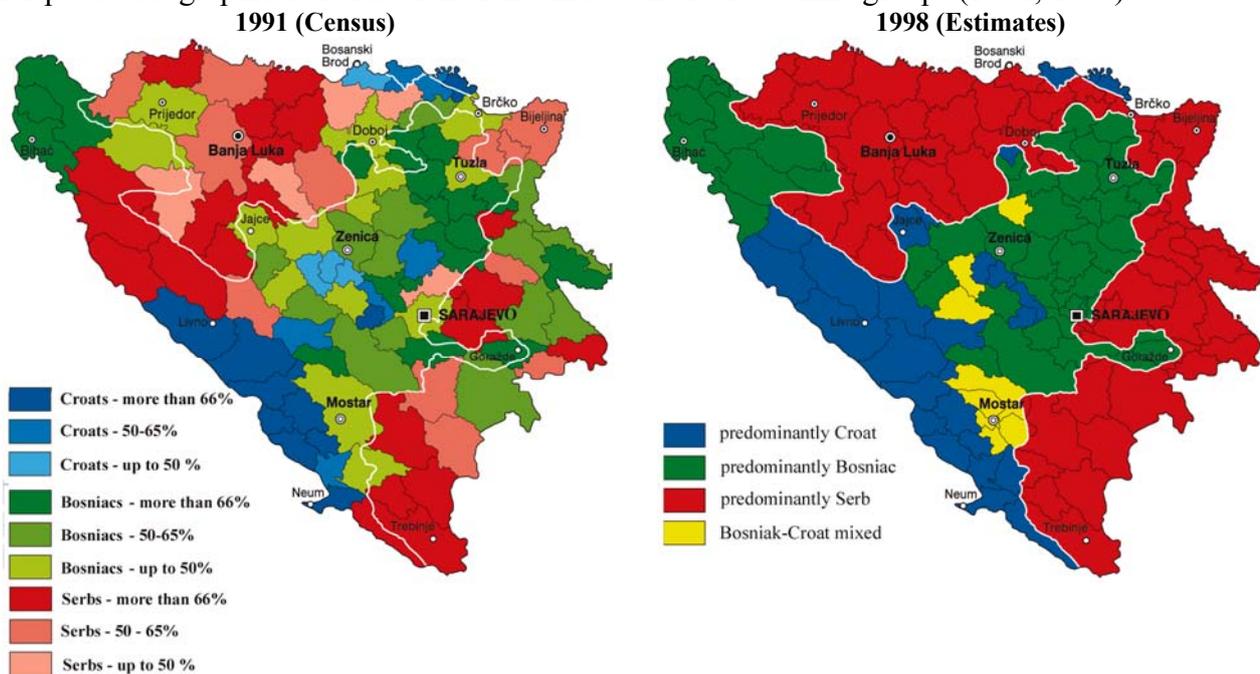
Table 4.8. Registered returns summary to BiH (from 1st January 1996 to 31st October 2006)

	Refugees	Displaced Persons
Federation of BiH	387,608	348,620
Republika Srpska	53,115	204,669
Brcko District	1,964	19,418
Total BiH	442,687	572,707

Source: UNHCR

Obviously this enormous number of refugees and displaced persons significantly affected the distribution on the territory of the three constitutive²¹² ethnic groups (Bosniaks, Croats, Serbs) of BiH. After the 1992-1995 war the ethnic mosaic became much more homogeneous than in the pre-war period.

Map 4.3. Geographical distribution of the three constitutive ethnic groups (1991; 1998)



Source: Office of the High Representative (OHR)

²¹⁰ Ibidem.

²¹¹ Ibidem.

²¹² The term constitutive refers to the fact that these three ethnic groups are explicitly mentioned in the constitution, and that none of them can be considered a minority or immigrant.

The post war population profile, according the 1991 census, was characterized by the 44% of Bosniak, the 31% of Serb, the 17% of Croat and the 8% of other ethnic groups. In the post war period, according the CIA World Factbook estimates, Bosnia and Herzegovina is ethnically 48% Bosniak, 37.1% Serb and 14.3% Croat; other ethnic groups are represented only for the 0.6%.

4.1.3.4 Population structure

Any estimate related to the population structure (age, sex) would be a quite ambitious and controversial exercise due to the significant migration, forced migration, population losses, internal displacement occurred during the 1992-1995 war. Moreover it would be also particular controversial considering that the estimate of the total population move in a range between 3.9 and 4.5 millions. It is a matter of fact that most of the documents and reports at the national and international level still use the 1991 Census as major reference. Also in the case of the 2007 (as well as in the previous ones) Demography Thematic Bulletin released by the Agency for Statistics of Bosnia and Herzegovina (BHAS)²¹³ the major term of reference for the analysis of the age and sex structure of BiH population is the 1991 Census. The only updated statistics are referred to those figures that belongs to registered life events as births, marriages and deaths.

However according estimates elaborated by the CIA (US Central Intelligent Agency)²¹⁴, on a total population of 4,552,198 (as previously mentioned local and UN estimate are lower than 4 million), the 15% is between 0 and 14 years (male 353,163/female 331,133), the 70.4% is between 15-64 years (male 1,615,011/female 1,587,956) and the 14.6% is 65 years and over (male 273,240/female 391,695). The sex ratio of the total population is 0.97 male/female and it is structured this way: 1.07 male(s)/female at birth; 1.067 male(s)/female under 15 years; 1.017 male(s)/female between 15 and 64 years; and 0.698 male(s)/female for 65 years and over.

Comparing the CIA estimates with the 1991 Census a significantly different structure emerge. The population seems to be relatively elder (Table xx) underscoring further challenges for the country especially in remote rural areas which are characterized by high levels of elder population. Even if the lack of data do not allow to assess the spatial distribution of various age groups, according to the EU funded project Sesmard²¹⁵ in the rural municipalities (mainly concentrated in the FBiH entity) where the project team have collected data there is a significant share of elder people.

Table 4.9. Population by age group

	1971			1981			1991			2005*		
Total	100	100	100	100	100	100	100	100	100	100	100	100

²¹³ Agency for Statistics of Bosnia and Herzegovina (BHAS), 2007.

²¹⁴ Central Intelligent Agency, 2007.

²¹⁵ D. Meredith, 2007.

0-14	34	36	33	27	28	27	23	24	23	15	15.7	14.3
15-64	61	60	62	66	66	66	68	69	67	70.4	72.0	68.8
> 65	5	4	5	6	6	7	9	7	10	14.6	12.3	16.9
* CIA estimates												

Source: BHAS; CIA

4.1.3.5 A strong rural character

FAO statistics show that the majority of BiH population (the 54.8%) is still living in rural areas, so even the major changes that have been driven by the 1992-1995 war and by the collapse of the socialist regime did not change the predominantly rural character of the region.

Table 4.10. Urban and rural population in BiH (1996-2005)

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total Pop (Mil)	3.412	3.489	3.618	3.750	3.847	3.900	3.921	3.918	3.909	3.907
Urban Pop (Mil)	1.409	1.455	1.523	1.595	1.653	1.693	1.720	1.737	1.753	1.771
Rural Pop (Mil)	2.002	2.034	2.095	2.155	2.194	2.207	2.201	2.181	2.157	2.136
Rural Pop (%)	58.3	58.3	57.9	57.5	57.1	56.6	56.1	55.7	55.2	54.8

Source: FAOStat

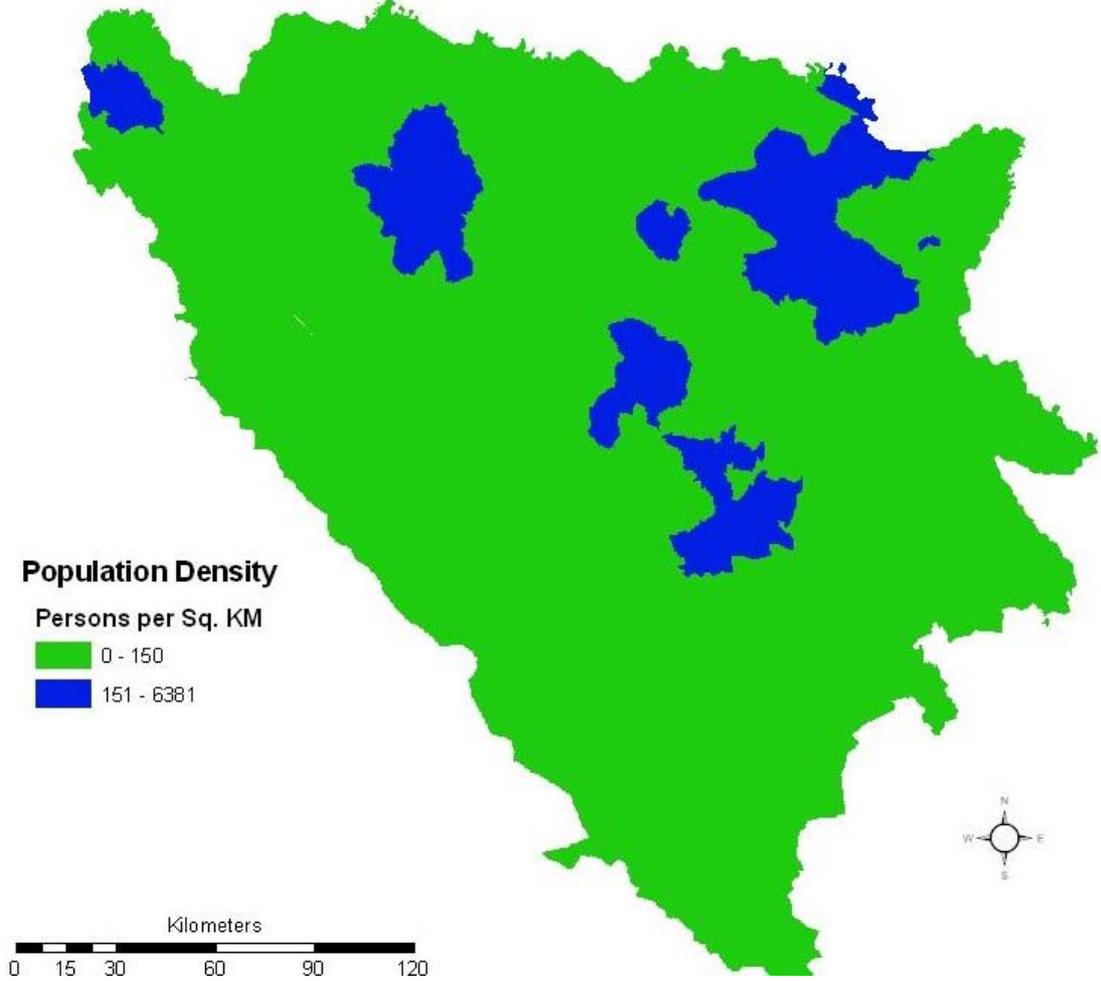
A further confirm is given by the application of the OECD²¹⁶ criteria for the definition of rural areas to BiH population data²¹⁷. Following this criteria the 81.5% of the total land area and the 61% of the population can be classified as rural. In other terms one hundred and fourteen municipalities, with a total population of 2.372 million persons, are classified as rural²¹⁸. A more detailed definition of the typology of rural areas, on the basis of their predominantly rural, intermediate rural or predominantly urban character, it is not possible due to the absent or scarce data at the municipality level.

²¹⁶ OECD defines rural areas in terms of population density. For the OECD, rural areas are those with less than 150 inhabitants/sq. Km.

²¹⁷ It has to be recalled that most of the available data are estimates so that the application of the criteria could result affected by that.

²¹⁸ D. Meredith, 2007.

Map 4.4. BiH population density (2005)



Source: Sesmard project

4.1.3.6 Poverty: a predominantly rural phenomena

Poverty²¹⁹ is still a widespread phenomena in BiH, especially in rural areas. According to the 2004 LSMS survey there are no groups under the extreme poverty line (which is estimated at 395 EURO per capita annually), it has been determined that the living standard of around 19,5% of the population of BiH is below the general poverty line (which is estimated at 1140 EURO per capita annually). Looking at the two entity the number of poor is higher in RS, 25%, then in FBiH, 16%)²²⁰. Moreover according the Human Development Report (HDR) 2007 the estimated Human Poverty Index in 2004 was 13.88% with a no significant growth or decline from 2003 when HPI was 13.86%²²¹. A HPI of 13.88% indicates that the 13.88% of people in BiH is considered poor according to this UN index used as an indication of the standard of living in a country. The HDR 2007 agree with the LSMS 2004 survey emphasizing a significant higher poverty level in RS (15.64%) then in FBiH (12.52%).

Two additional important consideration are related to the characteristics of the poor and their location. As far as the characteristics are regarded the poorest groups of population in BiH in 2004 include households with three and more children, refugees and displaced persons, households with two children, households in which head of household is person younger than 25, unemployed, households in which head of household has finished only primary school²²². Typical poor household in BiH is household in which a man is head of household, which has not moved during the war, in which there are no elderly members of household, in which most of members are economically inactive, and which live in rural areas of BiH²²³. So, as far as the location is regarded, the majority of poor live in rural communities. In BiH almost the 80% of poor is located in rural communities where basic infrastructure is still lacking, access to education and healthcare is low in quality, expensive and no accessible, where there are no income opportunity or relevant social welfare policies. Even in the absence of a comprehensive agricultural development policy the

²¹⁹ Until recently the term «poverty» was applied in the meaning of insufficiency of revenues for procurement of the minimum basket of goods and services. Nowadays, it is considered that poverty is the state when basic preconditions for a dignified life are lacking. It is recognizable that poverty is manifested in different ways, among which are: lack of income and resources sufficient to ensure viable existence; hunger and malnutrition, poor health, limited or no access to education and other fundamental services; increased mortality, including mortality from disease; homelessness and inadequate housing conditions; unsafe environment, social discrimination and isolation. Exclusion from decision-making and from civic, social and cultural life of the community are other basic features of the negation of human rights. Multidimensionality of poverty as a phenomenon permit us to view it as a condition characterized by lasting or chronic shortage of resources, abilities, choices, security and powers required for an adequate standard of living and attainment of other civic, economic, political, cultural and social rights (IMF, 2004).

²²⁰ IMF, 2004.

²²¹ UNDP, 2007.

²²² Council of Ministers of BiH, Government of FBiH, Government of RS, Office of the BiH Coordinator for PRSP, 2004.

²²³ Council of Ministers of BiH, Government of FBiH, Government of RS, Office of the BiH Coordinator for PRSP, 2004.

primary sector still remain the prevalent source of income and labour for rural population because of the lack of other opportunities.

Poverty is predominantly a rural phenomena also due to the big losses suffered by the country during the 1992-1995 war that led to high unemployment rates in rural areas. During the war farmers lost 50 to 60 per cent of their assets and 90 per cent of their livestock, buildings and production facilities were ruined, water and electrical power facilities destroyed. Immediate reconstruction efforts after the war focused largely on urban areas while rural areas have benefited to a smaller extent of international support.

4.1.3.7 A rural-urban symbiosis

The clash of the rural-urban fringe is particularly evident in Bosnia Herzegovina and more in general in many areas in the Balkans. Also due to the effect of the 1992-1995 war the complex “rural – urban symbiosis” described by Valdo Puljiz in 1987 is still effective in describing the situation in many rural and urban areas. Many non-agricultural workers households are somehow dependent on villages and on agriculture, hence small scale subsistence production provided an essential contribution to the living standards of many workers’ households in the villages or on the outskirts of the towns²²⁴.

This situation and the important social and economical role played by small farms in the Balkans has been advantaged also by the historical low density of settlements that has been too low to permit an efficient division of labor utilizing the natural endowment. Communication varied from bad to non-existent but their low utilization provided little incentive to improve them. These circumstances have been strongly favorable to the development of subsistence farming also due to the high costs of moving livestock to distant markets and of bringing in exchange goods. Therefore peasants generally avoided raising crops for surplus, because of the problems of disposal²²⁵.

The low density and the lack of a significant communication network is coherent also with the main typology of rural settlements that still today can be identified in dispersed settlements with individual houses or small scattered groups of houses²²⁶.

²²⁴ C. Schierup, 1992.

²²⁵ M. Pailaret, 1997.

²²⁶ Phare-Ace Project n. P96-6020-R, 1997.

4.1.4 Socio-economic system

4.1.4.1 Institutional settings

Bosnia Herzegovina presents a specific institutional framework that has been set with the Dayton agreement (or General Framework Agreement for Peace in Bosnia and Herzegovina) and that according reports from international organization, independent media and research institute can be considered as extremely complex, inefficient and extremely expensive²²⁷. Consequently, today the Dayton agreement seems outdated; its shortcomings affect the daily functioning of the state, and they generate an enormous expenditure linked to the running of three plus one parallel institutions (the State, two entities and one District). In 1995 the political and institutional division recognized with the Dayton agreement has been seen as the least bad solution at the time; the international community believed that nationalist politics would progressively fade away and that a more “western-style” party system would develop to replace them. However, ten years later, political life in BiH is still led by three nationalist parties²²⁸.

So with the Dayton agreement of 1995 Bosnia and Herzegovina has been divided in two entities (Federation of Bosnia and Herzegovina (FBiH) and Republika Srpska (RS)) and one District (Brcko District).

The Federation (mostly Bosniak - Croat entity) and the Republika Srpska (mostly Bosnian Serb entity) governments are charged with overseeing internal functions. Each has its own government, flag and coat of arms, president, parliament, police and customs departments, and postal system. Today, Bosnia and Herzegovina has one Armed forces, but until 2005, both entities had their own armies.

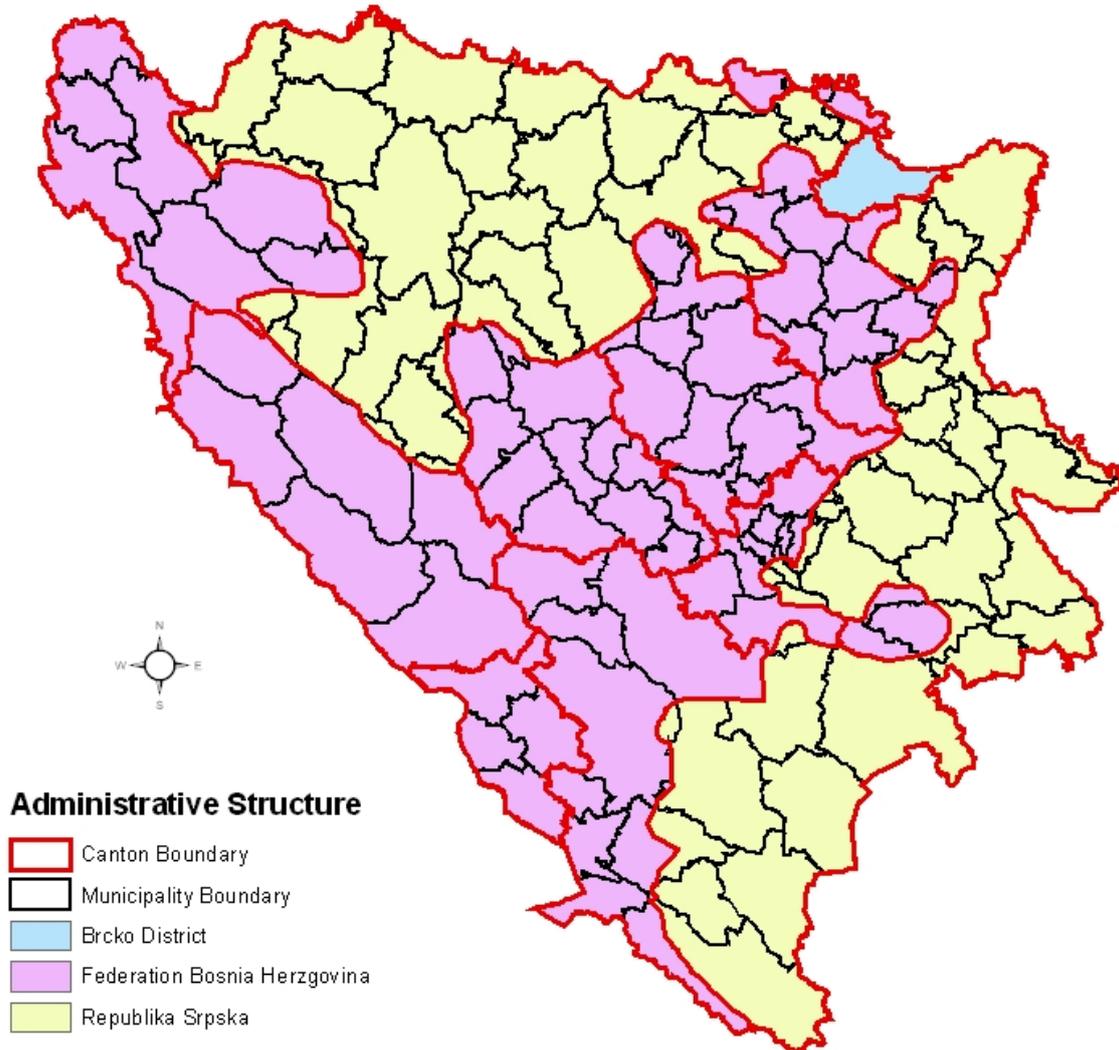
Moreover the city of Brčko, in north-eastern BiH, is the seat of the Brčko district, a self-governing administrative unit under the sovereignty of Bosnia and Herzegovina; it is part of both the Federation and Republika Srpska. The District remains under international supervision.

The Federation has further complexity level since it is divided into cantons which are then subdivided into municipalities; Republika Srpska is further divided into municipalities, which are then grouped into regions.

²²⁷ European Commission, 2004.

²²⁸ A. E. Juncons, 2005.

Map 4.5. Administrative structure of BiH after the Dayton Agreement (1995)



Source: Sesmard project

Despite this institutional weakness the state has grown. And several functions have been shifted to the state in the past years. An important role in the (slow) development of integration and state building have been played by the international community and by international agencies that seeks a single counterpart for negotiations. In particular the strengthening of State institutions represents a major precondition for joining the European Union²²⁹.

4.1.4.2 Socio-economic development in BiH

More than a decade after the signing of the Dayton agreement (1995), Bosnia and Herzegovina still faces many challenges in social, economic and institutional terms. The achievement of a sustainable and equitable development is still faraway; the process of institution building is still ongoing and the administrative structure is still under transformation (some competencies and responsibilities are

²²⁹ European Commission, 2005.

in the process to be moved from the entity to the State level, also due to the international and European pressure that would like to have a single counterpart); international aid and transfers (even if with a strong declining trend) are still playing a major role; the pre-war level of prosperity has not still fully recovered; productive resources, both labour and capita, remain under-employed; the country is slowly moving some step towards the European integration process.

There is a wide literature, based mostly on international organization reports and survey, on the institutional and structural economic and social problems of BiH. In this frame the UNDP's *BiH National Human Development Report 2005* and the World Bank's *BiH Country Economic Memorandum 2005* summarize them most relevant challenges:

- excessive decentralization and fragmentation;
- botched and drawn-out privatization;
- low levels of production and of productivity;
- low GDP growth;
- low domestic investment and low FDI;
- high trade and current account deficits;
- poorly targeted, and in some areas excessive, public spending and overmanned public services;
- an extensive informal economy;
- a high official unemployment rate;
- pension, health-care and social insurance crises;
- entrenched poverty alongside growing inequality.

4.1.4.3 GDP evolution

The destruction of housing and the displacement of large segments of the population during war time resulted in a dramatic reduction in living standards and a dramatic increase in poverty levels. Economic activity was nearly paralyzed, while industrial production recorded a fall of more than 90% in real terms²³⁰. Even if estimation related to size the GDP loss in war time vary considerably most of them agreed that this GDP loss has been considerably above the loss of any other transition country who suffered similar wars during the transition process²³¹. However World Bank estimates indicates the loss of GDP ranging from US\$ 8.7 billion in 1991 to US\$ 1.5 billion in 1994²³².

The postwar economic growth, facilitated by a macroeconomic stabilization programme initiated in 1994, and significant international assistance, has been solid, but not so strong as it could be

²³⁰ M. Bisogno, A. Chong, 2002.

²³¹ Ibidem.

²³² World Bank, 1998.

expected. Over the 1997-2000 period, GDP grew at an average of 13.6 percent, with a declining trend of growth that has been considerably strong in RS where the growth reached the 1.9% (2000) and relatively limited in FBiH where the growth reached the 7% (2000). Then, after the year 2000, GDP growth has been more stable ranging from 3.5% to 6%. In 2006, real GDP growth was 6.2%, up from 4.3% in 2005, driven by domestic demand and a notable rise in net exports. Economic activity grew strongly in sectors such as wholesale and retail trade, real estate, construction, financial intermediation and manufacturing, reflecting a favourable external environment²³³ and more accurate reporting of real export values after the introduction of value-added tax (VAT)²³⁴.

Table 4.11. Macroeconomic trends

	1990	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
A. GDP (US\$ million)												
BiH	10,633	3,423	4,169	4,540	4,252	4,796						
FBiH	*							9,688	10,321	10,831	12,146	
RS	*	1,043	1,160	1,341	1,290	1,369	1,645	2,141	2,683	2,971	3,578	
B. Real GDP Growth												
BiH	*	36.6	9.9	9.9	5.9	5.6						
FBiH	*	36.2	8.2	9.5	7.0	7.0						
RS	*	37.9	15.8	11.3	2.6	1.9						
C. Per capita GDP (in current US\$)												
BiH	2,429	816	1,042	1,135	1,093	1,222						
FBiH	*	1,167	1,418	1,458	1,373	1,453						
RS	*	733	704	821	806	873						

* The two Entity have been created in 1995

Source: author's elaboration on data from IMF; WB; BHAS; RS Institute of Statistic.

With a GDP per capita of 3,399 in 2007, Bosnia and Herzegovina belongs to the lower middle-income countries²³⁵. The GDP per capita of the Republika Srpska lagged behind the one of the Federation by 40 percent, with the gap somehow narrowing since 1999.

4.1.4.4 Monetary and fiscal policy

The creation of a common currency (the convertible marka - KM), initially pegged on a 1:1 basis to the Deutsche Mark and now pegged to the Euro (at the rate of € 0.51129 to 1 KM), contributed, on the one side, to control the inflation rate²³⁶, but on the other side deprived the government of an important policy tool.

The initial significant inflation differential between the two Entities is converging to a low level: in the Federation of Bosnia and Herzegovina (FBiH) inflation has been well below 2% in the past three years, while it has constantly decelerated in the Republika Srpska (RS), reaching single-digits

²³³ European Commission, 2007.

²³⁴ The value-added tax has been introduced in January 2006.

²³⁵ The World Bank includes among the lower middle income countries those countries that present a GDP per capita between 906 and 3,595 US Dollars;

²³⁶ European Commission, 2003.

in 2001²³⁷. Increased economic integration between the two Entities has been a determining factor in this convergence. Across BiH as a whole, in 2001 average inflation was 3.2% with an end of period rate of 0.8%, reflecting the stabilizing effect of the currency board.

Table 4.12. Inflation 1997-2007

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
BiH	5.6	-0.3	2.9	5.0	3.2	0.3	0.5	0.3	3.6	7.5	2.5
FBiH									2	6.6	2.9
RS									5.2	8.4	2.1

Source: IMF, BHAS

The share of public expenditures in GDP of BiH is far higher than in other transition countries. Slower economic growth and the decline of foreign aid flows have resulted in a stagnation of the general government spending since 2000, although current expenditure in real terms continued to grow. Reflecting the differences in GDP per capita, public expenditures in RS are currently at the level of only about 75% of public expenditure in FBiH. Significant, although declining, level of foreign grants and loans, which, in 2002, amounted to 8 percent of GDP, sustains an important program of public investments relating to reconstruction. High levels of expenditure are present in many important sectors, including defense, law and order, education, health and social protection. Overwhelming public services and relatively high level of public sector wages are resulting in high administration related costs.

4.1.4.5 Labour market

As it has been observed also by the main study led on the BiH labor market by the World Bank in 2002 one of the main characteristic of BiH labor market it is the presence of a large informal sector²³⁸ that heavily affect labor market itself and also estimates on unemployment rate. If according official registration the unemployment rate of BiH is above the 40 percent the figure is rather than different relying on the estimates from several household surveys led by Word Bank that place the true rate of unemployment somewhere between 15 and 20 per cent. It has to be pointed out that due to the absence of reliable statistics the major part of the most recent analysis of the labor market have been based on the Living Standard Measurement Survey (LSMS).

Postwar BiH was marked by *growth without employment*²³⁹ which speaks in favor of the hefty figure of 2001: the official unemployment rate was the 40%, and overall there were 362,000

²³⁷ Ibidem.

²³⁸ World Bank, 2002.

²³⁹ Council of Ministers BiH, Ministry of Foreign Trade and Economic Relations, 2003.

workers in the informal sector²⁴⁰, or 36 percent of total employment²⁴¹, with the share of those informally employed that was (and it is) noticeably higher in the RS (41.4 percent) than in the FBiH (32 percent)²⁴².

Moreover the 47 percent of these informal employment was taking place in agriculture with significant lower shares in the other sectors. Still in 2004 the official unemployment rate was 43,2 percent, but still the same figure would be much lower considering the share absorbed by the grey economy²⁴³. Considering and including in the calculation the grey economy, that the according estimation of the Central Bank of BiH cover the 38 percent of the BiH overall economy²⁴⁴, the real unemployment in 2006 rate should be less than the 20 percent (in line with the estimations made by the World Bank in server studies), as pointed out by Belke and Zenkic²⁴⁵.

Table 4.13. Unemployment rate: share of labour force that is unemployed (%)

1999	2000	2001	2002	2003	2004	2005	2006
39.4	39.7	40.0	41.1	41.6	41.8	43.9	31.1

Source: European Commission, 2007

Overall Employment in the formal sector increased by 1.7% year on year in June 2007. The officially registered unemployment rate increased slightly to 44.2% over the same period. The labour force survey showed a marginal increase in the employment rate to 31.2% in April 2007 from 29.7% a year earlier. While the employment rate increased to around 35% in the Republika Srpska, it remained almost flat in the Federation at about 29%. At the same time, the unemployment rate declined modestly to 29% from 31.1% over the same period and stood at around 25% in the Republika Srpska and 31% in the Federation.

Apart for the role of the informal sector it is important to underline that most report, researches and survey point out that the labor force in the formal sector is now considerably older and that young and unqualified workers are mostly relegated to the informal sector. Also, the participation of women in the labor force is rather low and overall there is employment discrimination based on ethnicity, age and sex. Moreover labor market is still fragmented and does not provide workforce

²⁴⁰ A worker can be considered as informally employed if he (she) is either self-employed (in an unincorporated business), or an employee working for unincorporated employer. Note that by its nature, informal jobs are associated with different bearing of risks and stability of job: selfemployed, by definition, bear the residual risks and profits, and their job is directly affected by their business performance; employees in informal sector are usually more exposed to risk, because the risk of their job termination is higher - they enjoy less protection. Note that formal sector workers may or may not be covered by health and pension insurance. (*The resolution concerning statistics of employment in the informal sector*, The Fifteenth International Conference of Labour Statisticians, January 1993).

²⁴¹ Ibidem.

²⁴² Ibidem.

²⁴³ S. Bojnec, 2005.

²⁴⁴ According to the PRSP 2004-2007 the growth in BiH has been based on employment in the informal sector that has, among other things, enabled many families in BiH to stay above the poverty line.

²⁴⁵ A. Belke, A. Zenkic, 2006.

mobility and the existing labor legislation is suited to the demands of a market economy that is still not working due to the above mentioned discrimination and to political divisions²⁴⁶.

There is also an inertness and inflexibility in the workforce as well. There is less inclination to move from one profession to another, which is the consequence of socialist practices, an educational system unsuited to the contemporary demands of the labor market, and an inflexibility concerning the level of minimum wage²⁴⁷.

4.1.4.6 Trade

4.1.4.6.1 Trade agreements

BiH has applied to become a member of the World Trade Organization WTO in May 1999 and was granted with the status of observer in July of the same year. Because of the low level of GDP, especially in the period just after the application, there were rumors related to the expectation of the entrance of BiH in the WTO with a developing country status that would allow BiH to benefit a longer adjustment period²⁴⁸. However this appears as rather difficult scenario considering that other transition countries that have entered the WTO after the Uruguay round did not managed to negotiate a developing country status and that BiH GDP level is not significantly lower than neighbor countries particularly when the purchasing power parity is considered²⁴⁹. At almost ten years since the application BiH still have an observer status, even if 2007 have been reported by WTO analysts as a year of significant progress.

A second relevant agreement which include BiH is the Central European Free Trade Agreement (CEFTA) which is a trade agreement between countries in Central and South-Eastern Europe. Since all the original members of the CEFTA are now members of the EU it has been decide to extend the Agreement to cover all Balkan countries which already had completed a matrix of bilateral free trade agreements in the framework of the Stability Pact for South Eastern Europe. With the meeting of Bucharest (April 6, 2006) the Prime Ministers of Albania, Bosnia and Herzegovina, Bulgaria, Croatia (although Croatia has been a member of CEFTA since 2003), Kosovo (United Nations Interim Administration Mission in Kosovo), Macedonia (FYROM), Moldova, Montenegro, Romania and Serbia have signed the Agreement on Amendment of and Accession to the Central European Free Trade Agreement (CEFTA 2006)²⁵⁰. CEFTA 2006 became effective during 2007 with the aim to establish a free trade zone in the region by the end of 2010, and in the same year a

²⁴⁶ Council of Ministers BiH, Ministry of Foreign Trade and Economic Relations, 2003.

²⁴⁷ Ibidem.

²⁴⁸ M. Ivankovic, S. Bojnec, 2005.

²⁴⁹ S. Bajramovic, S. Davidova, M. Gorton, D. Ognjenovic, M. Pettersson, E. Rabinowicz, 2006.

²⁵⁰ Stability Pact for South Eastern Europe, 2006.

number of key decisions has been taken in order to ensure its efficient and effective implementation²⁵¹.

Moreover currently BiH enjoy the autonomous trade measures granted unilaterally by the EU. Initially, they were granted in 2000 for a five-year period²⁵², then in 2005 these measures were extended until 2010²⁵³. Free access to the EU market it is ensured for almost all products; the only exceptions are the tariff rate quotas for wine, some fisheries products and sugar²⁵⁴. All goods originating from BiH and meeting the prescribed technical and technological requirements can, by the end of 2010, be exported to all the 27 countries of the European Union, without any quantity restrictions and exempt from payment of any customs or other duties²⁵⁵. The EU, in accordance with the EU Stabilisation and Association process, has also set precise conditions and procedures that must be respected by beneficiary countries²⁵⁶. This concerns the following requirements: obeying the EU rules on the origin of goods, refraining from introducing new import duties or increasing existing ones, including customs, or quantity restrictions for goods originating from the EU; the inclusion of BiH in an efficient effort to fight crime; respecting the fundamental principles of democracy and human rights; willing to promote economic reforms and regional cooperation with other countries involved in the EU process of stabilization and accession²⁵⁷.

This preferential export regime has been granted unilaterally to BiH due to its status of lower-middle-income economy²⁵⁸ on the basis of international preferential schemes as the Generalised System of Preferences (GSP) and the Global System of Trade Preferences (GSTP) which opens to BiH the possibility of favorable exports even to the largest world markets.

As underlined the Council Regulation (EC) No 530/2007 emphasized that the autonomous trade measures have to respect the framework established within the Stabilisation and Association Agreement (SAA) and since the SAA establishment in January 2006 they can be considered concretely as part of it. SAA, which is part of the EU Stabilisation and Association Process (SAP) and European Neighbourhood Policy (ENP), treats trade issues in a more comprehensive manner than the autonomous trade measures; namely it includes provisions not only about trade liberalization in goods but also about other trade related issues as services, state procurement, intellectual property rights and competition.

4.1.4.6.2 Trade developments

²⁵¹ Stability Pact for South Eastern Europe, 2007.

²⁵² European Commission, 2003.

²⁵³ European Commission Communication, 2006.

²⁵⁴ European Commission, 2000.

²⁵⁵ European Commission, 2007.

²⁵⁶ Ibidem.

²⁵⁷ Ibidem.

²⁵⁸ World Bank, 2007.

Foreign trade policy and customs policy fall under responsibility of the state institutions. The provisions of the BiH Law on Foreign Trade Policy are based on the freedom of movement of goods and services and only in some exceptional cases, and as a temporary measure, the Council of Minister of BiH, in cases of the legitimate protection of interest of the country, has the possibility to establish some barriers to trade on the whole territory of BH²⁵⁹.

Further important elements that have had an important impact and that are contributing to shape and address the BiH liberalization policy are obviously the trade agreement with EU, within the CEFTA and the negotiation to join the WTO.

Before to take in consideration the import/export structure of BiH it is important to highlight some elements that can be emphasized among the main constraints for trade development as the distortions generated by the significant size of the grey economy; the poor condition of the transport system; the lack of efficiency, due to its high complexity, in the administration (fiscal system in BH is very much decentralized and as a result administrative procedures

between all levels of government are very complicated and sometime not consolidated); the absence of a real single economic space; the high level of corruption; the lack of certification bodies and law standards; poor functioning of customs²⁶⁰.

However the most relevant constraint the lack of capacity in meeting international foreign trade regulations and standards, so only a small number of products can be exported, mostly raw materials and semi-finished goods. And on the other hand, owing to non-existent regulations and the non-existent system of safety and quality control of goods imported to BiH, it is possible to import almost anything into the country²⁶¹.

Even if both total imports and exports have increased during the last decade (1998-2006) the existing trade deficit is still unsustainable. However the coverage of imports with exports at the state level is increasing and it is getting closer to the 50 percent (Table xx). In the course of 2006, the coverage of imports with exports amounted to the 45.3 percent.

Table 4.15. Coverage of exports with imports in BiH (data in USD million), 1997-2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Export	1.064	1.149	2.264	2.341	2.089	2.428	3.012	3.783	5.164
Import	4.596	4.872	6.582	6.630	7.894	8.365	9.422	11.180	11.388
Total exchange	5.661	6.021	8.846	8.971	9.984	10.793	12.435	14.963	16.553
Balance	-3.532	-3.723	-4.318	-4.288	-5.805	-5.936	-6.410	-7.397	-6.224
Coverage of exports with imports (%)	23.2	23.6	34.4	35.3	26.5	29.0	32.0	33.8	45.3

Source: BHAS

²⁵⁹ Council of Ministers BiH, Ministry of Foreign Trade and Economic Relations, 2003.

²⁶⁰ Adnan Efendic, 2004.

²⁶¹ Council of Ministers BiH, Ministry of Foreign Trade and Economic Relations, 2003.

The growth of exports has been recorded in both the Entities, with RS that has overcome the 50% level in 2006.

Table 4.16. Coverage of exports with imports in FBiH and RS in USD million (2003-2006)

	2003		2004		2005		2006	
	FBiH	RS	FBiH	RS	FBiH	RS	FBiH	RS
Export	:	0.610	1.356	0.842	1.640	1.130	2.269	1.540
Import	:	2.277	4.078	2.702	4.968	2.953	5.197	2.760
Total exchange	:	2.888	5.434	3.545	6.608	4.083	7.746	4.300
Balance	:	-1.666	-2.722	-1.859	-3.328	-1.822	2.928	-1.219
Coverage of exports with imports (%)	:	26.8	33.3	31.2	33.0	38.3	43.6	55.8

Source: FBiH Federal Institute of Statistics; RS Institute of Statistics

The most important export markets for BiH goods are the markets of countries with which BiH has concluded free trade agreements, including the autonomous trade measures granted unilaterally to BiH by the EU. In 2006, a total of 56,1 percent of overall BiH exports was directed to those markets.

Table 4.17. BiH foreign trade partners, in % of the total (2005-2006)

Group of Countries	2005	2006
A. EU		
Export	53,3	58,0
Import	58,4	56,1
B. CEFTA Countries (less Moldova)		
Export	37,1	34,9
Import	33,9	33,1
C. Others		
Export	9,6	7,1
Import	7,7	10,8

Source: Council of Minister of BiH, MoFTER

Agricultural and food related products are, together with mineral products and machinery and electrical equipment, the major voice in BiH imports (Table 4.18). Moreover, according to the value of imports of individual products, the most significant products are energy sources, beverages, alcohol and cigarettes, which are, in most part, imported from CEFTA countries, while agricultural products are imported, at a higher percent, from EU member countries.

Table 4.18. BiH import structure, most important products (in USD thousands)

Product	2005	2006
Agricultural products	1206,5	1291,1
Mineral products	965,4	1249,2
Machinery; Electrical Equipment; Television Image and Sound Recorders and Reproducers	1206,1	1205,6

Base Metals and Articles of Base Metal	650,8	788,1
Chemicals	631,9	705,3
Vehicles, aircraft and vessels	554,7	531,9

Source: author's elaboration from BHAS data

Recent years have seen a fast growth of the exports of base metals, but timber, furniture and paper still represent a significant group in the total BiH exports. Other significant products, according to value of exports, are mineral products and chemicals. Beside the structural problem that characterize the local environment data on exports show that BiH has competitive advantages in the production of the aforementioned products.

Agricultural and food related products account only for a small percent of the overall BiH exports, and the coverage of imports with exports in that area remains at a very low level.

Table 4.19. BiH export structure, most important products (in US\$ thousands)

Product	2005	2006
Wood	346,9	369,6
Base Metals and Articles of Base Metal	576,5	922,0
Mineral products	306,2	403,0
Chemicals and allied industries	174,4	229,1
Textiles	95,9	169,0

Source: author's elaboration from BHAS data

4.1.4.7 Privatization process

The pre-1992 economy was dominated by 10 large conglomerates responsible for more than half of BiH GDP. After the war this situation, typical of the socialist heritage, started to slowly move towards several structural changes. The early post-war period (1996-1999) has been characterized by the implementation of a massive reconstruction process, that has been led by the international intervention, that is paralleled to the economic reforms that have been necessary to move from a planned to a market economy, but also to ensure the overall sustainability of the reconstruction process.

According to a World Bank evaluation²⁶² the post war BiH private sector has been characterized by four major elements:

- new private enterprises emerged, mostly in construction, trade, and transport, but many socially owned and mixed enterprises had closed;
- the structure of the surviving State Owned Enterprises (SOEs) remained essentially the same. SOEs continued to own the largest banks in both the FBH and RS, which lent primarily to their parent companies, usually without regard to creditworthiness;
- separate legal frameworks for regulating the private sector were developed within the FBH and the RS; the base for this regulation had been an assortment of inconsistent laws and regulations, dating back to the Socialist Federal Republic of Yugoslavia and wartime administrations.
- the private sector faced a highly restrictive regulatory environment, a heavy tax burden, and inconsistent tax treatment, none of which was conducive to private sector development.

According to the many international organizations (EBDR, EU, IMF, World Bank, USAID) the privatization process in BiH has been particularly slow. However the situation present significant differences on a sectorial basis. In some areas BiH has reached or almost reached a status of market economy. According to the EBRD Transition Report for 2007 in terms of prices a comprehensive liberalization has been reached, while as far as trade and foreign ex-change system all quantitative and administrative restrictions have been removed.

However in other sectors as the fields of large and small scale enterprise privatization, of governance and enterprise restructuring, and infrastructure reform (telecommunications, railways, electric power, roads, water and waste water) the progress has been fairly limited. The worst achievements have been reached in case of competition policy where, according to the EBRD, few progresses has been made only in 2005. At State level a new Law on Competition has been implemented only the 27 of July 2005 (BiH Official Gazette No. 48/05). This law follows very

²⁶² World Bank, 2004.

closely the concept of the European competition rules and regulates the rules, measures and procedures for the protection of market competition, and the power and duties of the Council of Competition entrusted with the protection and promotion of market competition in Bosnia and Herzegovina²⁶³.

Table 4.20. The privatization process in BiH, major sectors (EBDR index range from 1 to 4+)²⁶⁴

	2003	2004	2005	2006	2006 index value	
Large scale privatisation	2.33	2.33	2.67	2.67	More than 25 per cent of large-scale enterprise assets in private hands or in the process of being privatised, but possibly with major unresolved issues regarding corporate governance.	
Small scale privatisation	3.00	3.00	3.00	3.00	Comprehensive programme almost ready for implementation.	
Enterprise restructuring	2.00	2.00	2.00	2.00	Moderately tight credit and subsidy policy, but weak enforcement of bankruptcy legislation and little action taken to strengthen competition and corporate governance.	
Price liberalisation	4.00	4.00	4.00	4.00	Comprehensive price liberalisation	
Trade & Forex system	3.67	3.67	3.67	3.67	Removal of all quantitative and administrative import and export restrictions (apart from agriculture) and all significant export tariffs	
Competition Policy	1.00	1.00	1.67	2.00	Competition policy legislation and institutions set up; some reduction of entry restrictions or enforcement action on dominant firms.	
Banking reform & interest rate liberalisation	2.33	2.67	2.67	2.67	Substantial progress in establishment of bank solvency and of a framework for prudential supervision and regulation; full interest rate liberalisation with little preferential access to cheap refinancing; significant lending to private enterprises and significant presence of private banks.	
Securities markets & non-bank financial institutions	1.67	1.67	1.67	1.67	Formation of securities exchanges, market-makers and brokers;	
Infrastructure reform	Telecommunications	2.33	2.33	2.33	2.33	Modest progress in commercialisation.
	Railways	3.00	3.00	3.00	3.00	Commercial orientation in rail operations. Freight and passenger services separated and some ancillary businesses divested.
	Electric power	3.00	3.00	3.00	3.00	Law passed providing for full-scale restructuring of industry, including vertical unbundling through account separation and set-up of regulator.
	Roads	2.00	2.33	2.33	2.67	Fair degree of decentralisation and commercialisation. Regulation and resource allocation functions separated from road

²⁶³ The entities' antitrust rules are contained in the FBiH Trade Law (FBiH Official Gazette No. 64/04 and 12/05) which came into force in 2004, the RS Trade Law (RS Official Gazette No. 16/96, 25/96 and 52/01) which came into force in 1996, and the Law on Obligations (SFRJ Official Gazette No. 29/78, 39/85 and 57/89) which came into force in 1978 and was adopted by Republika Bosna i Hercegovina (legal predecessor of FBiH) in 1992 and Srpska Republika Bosna i Hercegovina (legal predecessor of RS) in 1992.

²⁶⁴ The transition indicator scores reflect the judgment of the EBRD's Office of the Chief Economist about country-specific progress in transition. The scores are based on a classification system which was originally developed in the 1994 Transition Report and which has been refined and amended in subsequent reports. The indicator ranges from 1 to 4+. Although the indicator presents differences for each specific aspect it is correct to approximate that the value "1" indicate a poor condition in terms of reforms, while "4+" indicate standards and performance typical of advanced industrial economies.

Social Infrastructure and Services	7.8	79.2	116.2	144.0	359.7	240.1	133.4	168.6	149.4	188.1	217.6
Economic Infrastructure and Services	-	1.0	23.4	45.0	266.8	203.7	86.7	25.7	31.5	41.1	76.7
Production Sectors	-	9.0	12.7	13.2	11.3	5.6	13.4	5.3	7.2	8.1	17.2
of which Agriculture	-	9.0	5.6	8.5	7.6	5.3	12.0	3.9	4.2	6.5	10.1
Multisector	-	13.8	18.2	0.5	64.8	20.7	8.5	7.7	8.1	5.9	6.9
Programme Assistance	6.9	42.3	9.1	37.7	50.2	16.3	15.4	28.3	-	23.2	8.5
Action Relating to Debt	-	42.3	9.1	20.6	-	190.1	226.6	0.3	-	20.6	-
Emergency Assistance	4.1	331.0	302.5	180.4	143.8	247.7	82.4	83.4	66.0	70.4	37.7
Other and Unallocated/Unspecified	-	1.0	17.1	0.8	10.9	18.6	2.2	8.0	3.6	8.4	7.1
Total	18.9	477.2	499.3	442.3	909.5	943.5	568.5	327.2	265.7	365.8	371.7

Source: author elaboration on OECD-DAC data

Looking at the donor countries the major role has been played by European countries, EC and EU Members together account for more than the 55% of the total flows (or 4,5 USD billion), by USA that have donated a total of 1,25 USD billion in the 1995-2004 period.

Table 4.23. Bilateral and multilateral ODA donors 1995-2004 (data in USD million)

Bilateral	Total ODA net	Multilateral	Total ODA net
Austria	397.9	EC	1545.6
France	165.5	EBDR	14.5
Germany	706.5	IDA	837.1
Italy	234.3	UNHCR	90.1
Japan	277.8		
Nederland	587.9	Total DAC Members	4942.5
Norway	289.5	Total Multilateral	2611.8
Sweden	304.0	EC+EU Members	4460.8
USA	1248.7	Total DAC + Multilateral	7554.3

Source: author's elaboration on OECD-DAC data

4.1.5 Policies, institutions and governance in the agro-food sector

4.1.5.1 Institutional framework in the agricultural sector

The major elements that have to be underscored in analysing BiH agricultural policy are the absence of a consistent uniform policy at the national level and the lack of institutional capacity to develop and coordinate agricultural policy and legislation²⁶⁵.

According to the constitutional setting of Bosnia and Herzegovina (BiH) all the existing public administration levels (State, entities, District, cantons and municipalities) are involved in agricultural legislation and administration²⁶⁶.

Duties and responsibilities at the State level are limited to the competencies emphasised by the Constitution as foreign policy and international agreements, foreign trade policy, and custom

²⁶⁵European Commission, 2004.

²⁶⁶European Commission, 2004.

policy. Any function or power which is not expressly assigned in the Constitution belong to the Entities. This element is particularly stressed in the Constitution of both Entities:

- the *Constitution of RS* states that the Entity has all governmental functions and powers, except of those that were by the Constitution of BiH explicitly transferred to BiH institutions. Moreover a specific attention is given to land use and management: the ownership of farm is guaranteed; the ownership of forests and forestland have to be specified by law; the protection of use, improvement and management of property of general interest has to be regulated by law;
- the *Constitution of FBiH* states that the Federation shall have exclusive responsibility for making economic policy, including planning and reconstruction, and land use policy on the federal level.

The exclusive responsibility for land use policy at the Entity level is reflected in the overall frame of the agricultural administration of BiH that is actually composed by 2 ministries at the entity level, six cantonal ministries, a department at the district level and 4 department at the canton level within the respective ministry of economy.

The competences of the ministries at the entity level and of the department of agriculture of the Brčko District is not identical so that there are additional difficulties in the cooperation among the different institutional bodies between the entities, among the entities and the District, and among the Entity (FBiH) and the cantons²⁶⁷. The institutional framework is particularly complex especially in FBiH, where the Federal Ministry of Agriculture, Water-Management and Forestry shares its competences with the relevant canton ministries.

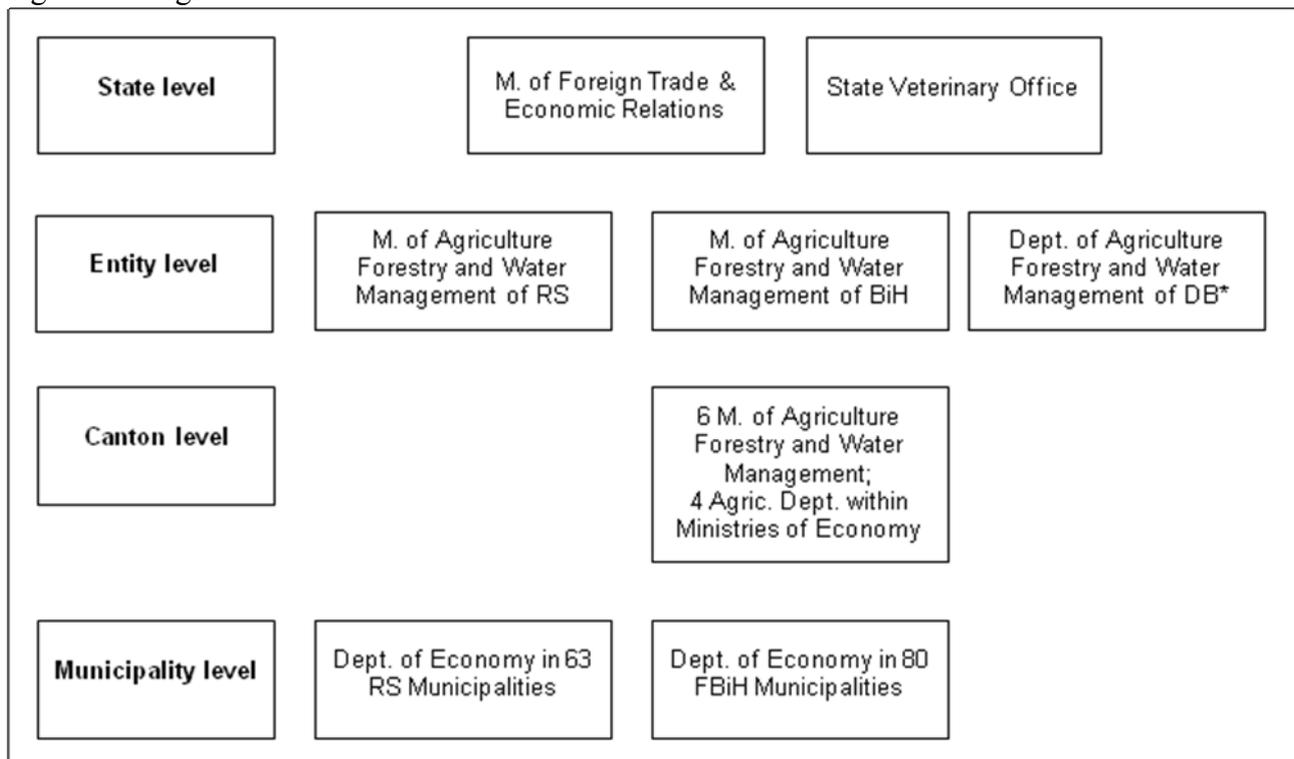
So, due to a strong pulverisation of the public functions and powers, the central state would have an essential role in the coordination. However the reality is that this high degree of federalism and complexity combined with the lack of coordination and human resources bring to a widely ineffective institutional environment. This situation has been underscored several time by different international organization as the EC and the World Bank leading to a small degree of change. In 2001 the two Entity signed a Memorandum of Understanding on mutual cooperation to contribute to the BiH market of agricultural products, to harmonize taxes for trade of agricultural products, to harmonize the legislation in the two Entities, to harmonize laws on the BiH level with the EU regulations, to contribute to the strengthening of the BiH administration. However both Entities lacked in the implementation of the memorandum without producing significant efforts to reach the indicated targets. A further step forward has been recommended by the EC that in 2004 advanced the invitation to create a State Ministry for Agriculture and Rural Development in order to

²⁶⁷ All 10 Cantons have their own Constitution that regulate the joint responsibilities between the Canton and the Federation in the field of environmental protection, tourism and use of natural resources including agriculture.

strengthen the central coordination and harmonization functions. The creation of a common Ministry is considered by the EC as a key requisite for any further substantial progress towards the EU integration and the development of the BiH agricultural sector²⁶⁸. The EC suggestion has been partially accomplished with the creation of a Section for Agriculture, Food, Forest and Rural Development (AFFRD) within the Ministry of Foreign Trade and Economic Relations. This unit is seen as a first step towards the creation of a future common State-level Ministry which is actually supported in a direct or indirect manner by several bilateral and multilateral projects aiming to strengthen the cooperation between the administrations of the two Entities.

Even if the AFFRD Section is not yet operative some policies and rules are anyhow regulated at the State level. It is the case of the policies related to foreign trade, external relations and general veterinary matters that are implemented at the state level by the Ministry of Foreign Trade and Economic Relations (MoFTER), by the State Veterinary Office (which has been established within the MoFTER and which should serve as the administrative link between veterinary sectors and the veterinary inspectorates of the entities - and cantons -)²⁶⁹ and by the Council of Ministers (CoM).

Figure 4.1. Agricultural administration in BiH



* District of Brcko

Source: author elaboration from European Commission, 2004

²⁶⁸ European Commission, 2004.

²⁶⁹ At the end of 2007 the State Veterinary Office was still not fully operative.

4.1.5.2 Legal framework

The legal framework is a direct product of the institutional fragmentation so it deeply reflects the overall pulverization and the lack of coordination among the different administrative levels. The state is responsible for certain legislative sectors, and particularly with regard to the harmonization with EU requirement and among Brcko District, FBiH and RS, while the major responsibilities are assumed by the entities and Brcko District.

So laws generally present significant differences and are not harmonized. Moreover on the one hand the majority of the existing laws lack bylaws (statutes, instructions), and, in practice, can be only partially implemented²⁷⁰, and on the other hand some key laws are missing (e.g. the regulations for registration of agricultural producers as legal entities).

Considering the state level competencies the MoFTER is responsible for the coordination and harmonization of policies and plans defined at the canton, entity and international level. In particular MoFTER policy is defined within several state level laws: on veterinary services, on plant protection, on supervision of quality of food products, on competition, on consumer protection, on cooperatives, on food safety.

In this frame a major attempt is represented by the *Draft Law on Agriculture, Food and Rural Development*, which has been formulated within the MoFTER on the basis of the suggestion of the Functional Review of the Agricultural Sector of 2004. This Law, which is still under the evaluation of the Parliamentary Assembly²⁷¹, defines the terms to be used within the agriculture, food and rural development sector legislation, its objectives, and the structure and competencies at all level authorities²⁷².

Tab. 4.24. Main Agricultural Legal Framework at the State and Entity level

SECTOR	BIH	FBiH	RS
Legal basis; Agriculture, fisheries and forestry (general); Food safety.	<ul style="list-style-type: none"> -Law on Veterinary medicine, (Official Gazette of BiH, No, 34/02) -Law on protection Plant Health, (Official Gazette of BiH, No 23/03) - Law on Protection new plant varieties of BiH, (Official Gazette of BiH, No 46/04) - Law on Mineral Fertilizers (Official Gazette of BiH, No. 46/04) - Law on Phytopharmaceutical Substances (Official Gazette of 	<ul style="list-style-type: none"> -Law on Waters (Official Gazette of FBiH, No. 18/98, 70/06) -Law on Veterinary (Official Gazette of FBiH, No. 46/00) -Law on Drugs in Veterinary Medicine (Official Gazette of FBiH, No. 15/98) -Law on Forestry (Official Gazette of FBiH, No. 20/02, 20/03) -Law on Financial Support to the Primary Agriculture Production (Official Gazette of 	<ul style="list-style-type: none"> -Law on Agriculture (Official Gazette of RS, No. 70/06, 20/07) -Law on Forestry (Official Gazette of RS, No. 66/03) -Law on Hunting (Official Gazette of RS, No. 4/02) - Law on Waters (Official Gazette of RS, No. 10/98, 51/01, 50/06) - Law on Plant Protection (Official Gazette of RS, No. 13/97) - Law on Health Protection of

²⁷⁰ International Monetary Fund, 2004.

²⁷¹ The Parliamentary Assembly of Bosnia and Herzegovina (*Parlamentarna Skupština Bosne i Hercegovine*) is the bicameral legislative body of Bosnia and Herzegovina.

²⁷² Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Sesmard Project, Sarajevo, September 2007.

	<p>BiH, No. 49/04)</p> <ul style="list-style-type: none"> - Law on Food (Official Gazette of BiH, No. 50/04) - Law on Seeds and Seedlings of Agricultural Plants BiH, (Official Gazette of BiH, No 03/05) 	<p>FBiH, No. 28/04)</p> <ul style="list-style-type: none"> -Law on Hunting (Official Gazette of FBiH, No. 4/06) -Law on Freshwater Fisheries (Official Gazette of FBiH, No. 64/04) -Law on Measures for Improvement of Cattle Breeding (Official Gazette FBiH, No. 23/98) -Law on Medicaments Used in Veterinary (Official Gazette of FBiH , No. 15/98) - Law on Seeds and Seedlings of Agricultural Plants (Official Gazette of FBiH, No. 55/01, 71/05) - Law on recognition and protection of agricultural and forest plant species, 2002 	<p>Animals and Veterinary Activities (Official Gazette of RS, No. 11/95, 10/97, 52/01)</p> <ul style="list-style-type: none"> -Law on Agriculture Inspection (Official Gazette of RS, No. 10/97) - Law on Fishery (Official Gazette of RS, No. 4/02) - Law on Providing and Directing Funds for the Development of Agriculture and Village (Official Gazette of RS, No. 43/02, 44/02) -Law on Plant Protection (Official Gazette of RS, No. 13/97) - Law on Seed and Planting Material (Official Gazette of RS, No. 13/97) - Law on Measures for Improvement of Livestock Breeding (Official Gazette of RS, No. 10/98, 34/06) - Law on Medicines used in Veterinary and Veterinary-Medicine Products (Official Gazette of RS, No. 37/02) - Law on Fertilizers (Official Gazette of RS, No. 35/04)
Agricultural products (specific)		-Law on Tobacco (Official Gazette of FBiH No. 45/02)	<ul style="list-style-type: none"> - Law on Brandy and Wine (Official Gazette of RS No. 3/97) - Law on Tobacco (Official Gazette of RS No. 4/97)
Organic farming (specific)			-Law on organic agriculture, (Official Gazette of RS, No. 75/04)
Rural development (specific)			-Law on Provision and Allocation of the Funds for Stimulating Agriculture and Rural Development (Official Gazette of RS, No. 43/02, 44/02)
Cooperatives (specific)	- General law on cooperatives, (Official Gazette of BiH, No 57/03)	Law on cooperatives FBiH, (Official Gazette of BiH, No. 29/97)	Law on farming cooperatives RS, (Official Gazette of BiH, No. 18/99)
Land property (specific)		Law on Agricultural Land (Official Gazette FBiH, No. 2/98)	Law on Agriculture Land (Official Gazette of RS, No. 93/06)
Financial instruments (specific)			Law on saving-credit organizations, (Official Gazette of RS, No. 93/06)

Source: author's elaboration from Legislation database of Bosnia and Herzegovina and of Federation of Bosnia and Herzegovina; National Assembly of the Republic of Srpska²⁷³.

4.1.5.3 Support services in the agricultural sector

Apart from public administration there is a considerable number of support services that have an important role for the functioning of the BiH agricultural sector. These support services include at list agricultural and veterinary institutes and research centers, universities, extension services, property land issue services, standardization and accreditation services, financial support services²⁷⁴.

A specific lack, common in most transition and ex socialist countries, is the low level of development of sectorial associations that in BiH suffer due to the lack of cooperation among the actors of the single sub-sectors. In most of the case this severe lacking of functioning characterize both the associations developed through public funding and the ones promoted through international projects. However the most important sector associations are the BiH Farmer Association, which consists of 96 associations in RS, 99 association in FBiH and overall about 28.000 farmers; the BiH Association of Cooperatives, that consists of more than 400 cooperatives from all sectors (the majority of these are not active) with a total of 100 cooperatives, with 60.000 members, from the agricultural sector; the BiH Association of Food Processors within the BiH Chamber of Foreign Trade²⁷⁵. Many analysts agree in expecting a rapid increase of associations not only in numerical terms, but also for a better representation of the different interest of the agricultural sector an the State level and entity level political debate.

Research and education in the agricultural sector is starting to recover after the paralysis suffered after the 1992-1995 war due to the lack of financial and human resources. On the one hand the four Agricultural Faculties (Agricultural Faculty of the University of Banja Luka, Agricultural Faculty of the University of Mostar, Agricultural Faculty of the University of Pale, Agricultural Faculty of the University of Sarajevo) are strengthening their international relations, consolidating their research capacity and developing new curricula in order to respond to the different needs of a fast evolving agricultural sector and to start the preparation to apply for the Bologna process²⁷⁶. On the other hand several Research Institutes (the FBiH Agricultural Institute of Sarajevo, the FBiH Institute for Pedology of Sarajevo, the FBiH Agronomic Institute of the University of Mostar, the

²⁷³ Legislation database of BiH and of FBiH: <http://www.zakoni.ba/>; National Assembly of the RS: <http://www.narodnaskupstinars.net/lat/zakoni/arhiva.php>.

²⁷⁴ The list do not pretend to be exhaustive.

²⁷⁵ European Commission, 2004.

²⁷⁶ The purpose of the Bologna process (or Bologna accords) is to create the European higher education area by making academic degree standards and quality assurance standards more comparable and compatible throughout Europe.

RS Agricultural Institute of Banja Luka, the RS Veterinary Institute of Banja Luka, the RS Agriculture Institute for Potato Breeding of Sokolac) have been consolidated or developed especially through projects funded from international organizations as FAO.

Extension services for farmers vary significantly between RS and the FBiH. There are basically two separate structures that operate independently and are connected with the respective ministry of agriculture. The extension service of RS has an headquarter in Banja Luka, 4 regional offices (Bjelijna, Doboje, Trebinje and Sokolac), and 7 additional information points (covered with one or two extension officers) in 7 municipalities in the Banja Luka region. Although RS extension service suffer of lack of staff and financial resources, they have anyway offered positive performances in the last few years: their broad geographical distribution offer a good possibility of being close to the clients and moreover they have offered trainings, provided advices, supported farmers in presenting the application to request subsidies and more in general promoted a dialogue between farmers and institutions. Theoretically the main target groups had to be commercial farmers but the needs of small and medium sized farmers have been equally targeted. The extensions service of FBiH are lagging behind the one of RS. Basically they are only available in a rudimentary form²⁷⁷, since they are affected by significant structural problems, a weak presence on the terrain, lack of human, financial and technical resources, and several administrative constrains linked to the overall division of FBiH in cantons. However some cantonal administration have set up agricultural offices in order to provide some support services through as providing practical advice, organizing seminars, and disseminating relevant information. In 2007 agricultural offices exists or are in the process of being established in five cantons, while there is no plan for their creation others.

Institutions dealing with property land issues are generally less client oriented then extension services and more integrated in the government system since they should provide public functions related to the creation or restructuring of the cadastre. However the overall situation is particularly difficult for the RS Administration for Geodetic and Legal Property Issues of Banja Luka and the FBiH Geodetic Institute of Sarajevo due to the absence of an updated land register, the frequent lack of formal property acts, and the different laws and regulations established by Brcko District, FBiH, and RS.

Standardization and accreditation services are financed and controlled by the BiH State government through two institutions: the BiH Institute for Standards, Metrology and Intellectual Property, and the BiH Accreditation Institute. While the BiH Accreditation Institute is in charge of accrediting certification institutions, the BiH Institute for Standards, Metrology and Intellectual Property deals

²⁷⁷ European Commission, 2004.

with standardization, but also with the harmonization with the EU standards also in the field of agribusiness.

Financial support services are generally particularly low both considering the public sphere, the level of subsidies has been particularly low in the past 10 years, and in the private sphere where the services offered by commercial banks are significantly poor. The situation is mostly difficult for small farmers who have basically no access to credit except for the microcredit programmes offered by several NGOs.

4.1.6 Assistance to agriculture

The complex institutional framework characterizes also agricultural support and affects the BiH agricultural policy framework. So substantially BiH, excluding the sectors that are under the responsibility of the MoFTER, do not have a state level policy. The fact that responsibilities are shared at the entity, district and partially canton level result in several different programmes of agricultural support, in different measures, and in different budget allocations.

Since the mid-1990s agricultural support in BiH (considering the two entities) has been relatively weak taking into account that in the last fifteen years the agricultural budget never exceeded the 3% of the total budget and that the policy measures adopted have been often characterized by a short term perspective, by regular annual revisions and that has been concentrated on the support of certain commodities.

The overall situation related to the public support for agriculture has been improved (even if from a very low one) in both entities between 2005 and 2007 on the one hand with a growth of the public expenditures for agriculture and on the other hand with a rationalization of the support measures. On the quantity side it has to be underscored that in 2007 total support to agriculture exceeded 20 million euro (with the 2007 figure being 6.5 million euro higher than 2006) in FBiH and 25 million euro (with the 2007 figure being 8.5 million euro higher than 2006) in RS. However it is also true that the number and different levels of public spending bodies providing agricultural and rural development support make it difficult to establish how much aid is being given nationally²⁷⁸.

On the quality side the major share of aid has been historically allocated to production (72% in FBiH and 40% in RS in 2007). In both entities the most supported productions have been milk and tobacco while some consistent differences at the entity level can be underscored in the establishment of orchard and vineyards, strongly supported in FBiH, and in the fruit and vegetable production, strongly supported in RS. Considering the European integration process a so strong production based support is not in line with the most recent measures and targets of the Common

²⁷⁸ Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Sesnard Project, Sarajevo, September 2007.

Agricultural Policy reform. Further reforms of the EU agricultural policy could make a production based support system even less compatible with the European frame, so the significant ongoing review of the BiH agricultural support scheme will also focus on the shift from production subsidies to different kind of measures. This is particularly important also considering the need for structural change and modernization that can not be undertaken only with production support measures but require a more diversified set of measures.

Apart for production subsidies the other main categories are capital investments and the recently introduced rural development. Capital investment, which account for the 33% (19 million KM) of the total support in RS and for the 9% (3.3 million KM) in FBiH, include investment in factors of production as fruit trees and bushes, new orchards, improved seed varieties, agricultural machineries (no assistance for investment in marketing improvements is provided). Significant resources for rural development has been allocated for the first time in 2007 accomplishing an important step on the way to a considerable alignment with the Common Agricultural Policy. Overall RS has allocated the 16% of the total resources to rural development, FBiH the 9%.

Other two additional elements that characterize BiH agricultural support environment are the lack of transparency in aid distribution and management, more structured and clear procedures for application and for aid evaluation are missing, and the “long term” social conflict between farmers and governmental bodies.

Table 4.25. Type of support in FBiH and RS in 2007

Type of measure	FBiH	RS
Production support	72%	40%
Capital Investment	9%	33%
Rural Development	9%	16%
Other	10%	11%

Source: Sesnard Project

4.1.6.1 Agriculture in the economy

The share of primary agricultural production in the GDP is declining significantly over the years, but agriculture is still playing a relevant role in the social and economic development of BiH. In this case figures show a consistent diversity between RS and FBiH where primary agricultural production accounts for a rather smaller percentage of the GDP.

Besides the official statistics it has to be emphasized also the role of the grey economy in which the weight of agriculture is rather consistent and the significant share of the rural population that practice subsistence farming consuming most of the food they grow without leaving so much for the

market. So the role of agriculture in the economy is probably considerably more relevant of the one revealed by official figures.

Table 4.26. Sector share in overall GDP 2002-2006 (data in %)

2002			2003			2004			2005			2006		
BiH	FIBH	RS	BiH	FIBH	RS	BiH	FIBH	RS	BiH	FIBH	RS	BiH	FIBH	RS
11,0	6,9	16,6	10,0	6,5	12,3	9,0	6,8	15,1	9,0	5,9	13,3	8,7	5,8	11,0
* Including hunting, forestry and fishery.														
** Total includes also the Brcko district which is excluded in the sectorial breakdown.														

Source: author's calculation from BHAS – Bosnia Herzegovina Statistical Agency; FBiH Statistical Office; RS Statistical Office;

4.1.6.2 The social role of agriculture

Apart for its economic function agriculture play an important social role in BiH. As in many other transition countries the agricultural sector has become an important social safety net especially in rural areas and in the rural-urban fringe due to the lack of economic opportunities.

4.1.6.3 Agricultural labour force

So BiH has a strong rural and agricultural character: the 55% of the population lives in rural areas, the share of agriculture in the overall GDP is still close to 9%, a high share of the population is linked with farming activities through subsistence farming.

As far as agricultural labor force is regarded official statistics show a rather stable trend in the last years even if it has never recovered the pre-war situation. Official estimations range from 3.1% (BHAS) to 3.5% (FAOStat) and agree in describing a declining trend, but includes mainly those officially employed in former state-owned big farms and cooperatives rather than private agriculture. So in this case it is probably necessary to underline that this data fails to describe the situation since a large part of the population, also actively employed in services or industry, works “part-time” in agriculture (in small private farms) in order to have an additional source of income. Moreover it is also true that with the job destruction in non-agricultural activities in war time and the consequent economic decline, a large proportion of employees in industrial activities have been transferred into unemployment and have found a form of relieve in subsistence agriculture²⁷⁹. So official statistic fails in taking into account a large part of this “grey” agricultural labour. Several international agencies and research centers agree in suggesting significantly different figures: the World Bank LMSM 2004 points out a share of 19.4% for agricultural employment, that is particularly high in rural areas where reach the 35%; other authors (S. Bajramovic, H. Custovic

²⁷⁹ S. Bojnec, 2005.

2005; S. Bojnec, 2005; S. Bajramovic 2006; Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Sesmard Project, 2007) suggest a even higher share with the agricultural labour force covering over the 40% of the total.

Table 4.27. Agricultural population in BiH 1995-2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total Population according FAO estimates (data in .000)	3420	3412	3489	3618	3750	3847	3900	3921	3918	3909	3907
Agricultural Population (data in .000)	263	243	230	220	211	200	187	173	159	146	135
% of agricultural population on overall population	7.7	7.1	6.6	6.1	5.6	5.2	4.8	4.4	4.1	3.7	3.5

Source: FAOstat

4.1.6.4 Farm structure

The agricultural sector of BiH is still characterized by a dual structure with an extremely large number of individual farms²⁸⁰ and a less significant number of agricultural enterprises and cooperative farms. However once again it is necessary to rely on estimations since the last complete agricultural census dates back to the year 1981 as far as the structure of farm is regarded and 1991 as far as the number of farms is regarded.

Table 4.28. Farm structure in RS and BiH related to the land-property size in the period 1905-1981

Land property size in ha	Farms - share in %			
	1905	1931	1960	1981
up to 1.00	40.7	34.0	38.4	33.8
1.01 - 5.00	26.4	34.6	36.6	49.4
5.01 - 10.00	18.7	21.0	19.5	13.9
Above 10.00	14.2	10.4	5.5	2.9
Total	100.0	100.0	100.0	100.0

Source: Republic Institute of Statistics of Bosnia and Herzegovina, Statistic Bulletin 101, 1983

In 2006 it has been estimated (Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Sesmard Project, 2007) that there are over 500,000 agricultural holdings in BiH. Over 50% of these farms are estimated to be less than 2 ha and over 80% less than 5 ha and often divided into 7-9 smaller parcels. So the actual BiH farm structure seems to be not so different of the pre war one; this would not be particularly surprising considering the lack of a comprehensive agrarian reform, of significant investments in the agricultural sector and of a long term strategy.

²⁸⁰ According the 1991 agricultural census in BiH there were 569,581 farms.

Moreover, especially due to the policies applied during the time of the Federal Social Republic of Yugoslavia land fragmentation is particularly constraining in the flatter areas while in the hilly areas, where a higher size was allowed, farm size is typically larger and units are more often consolidated.

Altogether the small size of farms and the fragmentation of land property heavily affect the competitiveness of the agricultural sector of RS. Moreover the scarce competitiveness of the sector is underlined also by the structural trade deficit. Agricultural products account for a significant percentage of the total foreign trade deficit and basically RS does not achieve self-sufficiency in none of the major agricultural products.

4.1.6.5 Mechanization

The large number of small farms make the agricultural sector of BiH still largely inappropriate for a modern mechanized farming, also due to this fact the overall level of mechanization of BiH has been historically poor.

Looking at the 1991 Census in BiH there were about 60,000 two-axle tractors and over 32,000 motor-cultivators and single-axle tractors. As underlined also because of the small farm size, many farmers did not have access to mechanical equipment or the ownership of mechanized equipment was not deemed as feasible. As such, there was a relatively high horse population (1 horse per 9 ha of cropped arable land).

The 1992-1995 war made the problem even more acute affecting the major part of the existing farm equipment. According FAO an estimated 70-80 percent of the tractors and implements were destroyed or stolen and of the remaining equipment, only about 50 percent were in working condition due to maintenance problems and lack of spare parts. Moreover the equipment was in often aged and in many cases, major rehabilitation work would not have solved the mechanization problem in the medium term.

The present situation is still poor with a rather low total number of tractors and other mechanical equipment and a large part of these which is extremely outdated.

4.1.6.6 Land ownership and market

The first reliable land ownership recording system covering the whole territory of BiH has been established during the Austrian-Hungarian Administration and it has been maintained and updated till 1945. Since WWI the Austrian-Hungarian register has not been maintained due to the damages occurred to part of the Austro-Hungarian book (part of the old books have been destroyed), to the need of a more modern mapping and to the fact that private property was losing importance because of the ideological orientation of the socialist regime (even if it has to be underscored that during the

socialist period only the 10% of the land was within the states owned agricultural enterprises and agricultural cooperatives). The realization of the new system, based on an aerial survey, resulted in a high quality large scale mapping which constitutes a valuable source for local administration and a valuable basis for future analysis, however a significant problem that characterized the implementation of the new system has been the absence of a link with the old system so that the Austro-Hungarian land books were not consequently updated²⁸¹.

Practically the Austro-Hungarian register has been replaced only by the real estate cadastre in 1984 on the basis of the new aerial cadastral survey. The real estate cadastre has been introduced with a law (*Law on Survey and Real Estate Cadastre* of 1984) which, after the 1992-1995 war, has been adopted by the entities and the Brcko District willing to individually regulate the keeping, the maintenance and the establishment of land register and registration of real estate and real estate rights. So any administration introduced its own law:

- *Law on Land Registry* in the FBiH (FBiH Official Gazette N. 19/03, 54/04);
- *RS Law on Land Registry* (RS Official Gazette N. 67/03, 46/04, 109/05);
- *Law on Land Registry* in the District Brcko (BD Official Gazette N. 11/01, 1/03, 14/03).

These law which contributed to increase the complexity level of the BiH administration system but suffered of a significant lack in terms of implementation so basically they did not give a significant contribution in order to restore the certainty of property rights. Moreover the problem of unclear land ownership and property rights has been made particularly acute by the displacements and the internal migration occurred with the 1992-1995 war.

To overcome to the absence of a serious and effective land reform (which has been one of the more important element in the structural change and transformation of many transition countries) and to harmonize the legislation the two entities are introducing a new *Law on Maintenance of the Survey and Land Cadastre*. RS has introduced this new law in March 2006, while in FBiH the law is still in an on-going adoption procedure.

Obviously unclear property rights affect negatively the functioning of the land market as well as the investments in the sector.

4.1.6.7 Agricultural area

According FAO estimates in BiH the agricultural area cover more than the 42% of the total BiH area, while around the 43% is covered by forests and an additional 15% by other land. Arable land account approximately for a 47% of the agricultural area. A significant share of the arable land area (several authors indicate a share ranging between 45-50%) is abandoned or predominantly

²⁸¹ Austrian Cooperation – Easter Europe, Deutsche Gesellschaft fur Technische Zusammenarbeit – GTZ, Swedish International Development Cooperation Agency, 2004.

abandoned due to the proved presence of landmines and to the insecurity of property rights that often neglect the opportunity to sell, buy and rent the land.

Table 4.29. Agricultural and forest area in BiH (data in .000 ha)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total land	5120	5120	5120	5120	5120	5120	5120	5120	5120	5120	5120
Agricultural land	2175	2170	2165	2160	2105	2130	2126	2123	2148	2179	2147
Arable land	850	900	900	950	950	1000	1010	997	1004	1032	1000
Forest Area	2198	2195	2192	2190	2188	2185	2185	2185	2185	2185	2185
Other area	748	755	762	770	828	805	809	812	787	756	788

Source: FAOStat

Arable land is mainly used for cereals (wheat and maize overall), feed crops and vegetables (potatoes, tomatoes, peppers, cabbage overall). In relative terms, in the last decade, cereals have been rather stable ranging between 57% and 60% of the total arable land, while the share of land covered by feed crops and vegetables has been slightly more variable ranging respectively from 23% to 26% and from 15% to 16%.

The overall stable/declining size of the total sown area in the 1996/1997 – 2006/2007 period suggest the absence of relevant reform in the past decade.

Table 4.30. Arable land by type of cultivation (.000 ha)

Year	Arable and gardens	Area sown					Nurseries and other arable land	Fallow and uncultivated land
		Total	Cereals	Industrial crops	Vegetables	Feed crops		
1996/1997	1021	604	359	9	94	142	2	415
1997/1998	1030	638	382	9	100	147	1	391
1998/1999	1055	619	367	8	97	147	2	434
1999/2000	1020	608	367	7	88	146	3	410
2000/2001	1015	601	365	6	89	141	2	411
2001/2002	1006	581	345	7	87	143	2	423
2002/2003	1020	550	318	8	86	138	2	467
2003/2004	1032	557	329	7	86	136	4	471
2004/2005	1028	553	321	9	85	138	3	472
2005/2006	1029	557	318	10	83	145	3	470
2006/2007	1025	556	318	10	83	145	3	466

Source: BHAS

4.1.6.8 Agricultural production

According to FAO estimates in the 2001-2006 period crop production accounted for almost 70% and livestock production for the 30% of the total gross agricultural output (GAO). However, the share of livestock production in the GAO is significantly increased in the last years²⁸².

As previously indicated (5.5.3.4.4) agriculture accounts for around 9% of BiH GDP and the trend is showing a slow but constant decline, although total production and total GAO are following a growing trend.

In terms of value the most important sub-sectors are vegetables, milk, maize and potatoes.

Table 4.31. Most important BiH sub-sectors by value (2005)

Product	Value
Vegetables	435 million KM
Milk	320 million KM
Maize	260 million KM
Potatoes	120 million KM

Source: FAOStat

4.1.6.8.1 Crop production

As previously indicated (5.5.3.4.10) cereals cover a 58-59% of the sown area, vegetables a 15-16%, feed crops a 24-25% and industrial crops a 1-2%.

Even if they cover the major share of the sown area general conditions for cereal production are not favorable due to adverse climate conditions in most of the areas of BiH and to the predominantly hilly and mountainous morphology of the territory. Conditions are generally more favorable in RS where lowlands are concentrated. Maize is the main cereal covering in 2007 approximately 35% of the total sown area and more than 60% of the area sown with cereals. Wheat, which is following a declining trend in terms of sown area, is the second cereal while the other cereals have a residual importance.

Table 4.32. Main cereals: area harvested and production

		2002	2003	2004	2005	2006	2007
Maize	Area sown	201,705	197,636	193,563	195,636	196,489	198,601
	Production	903,231	545,059	990,429	1,004,099	993,850	635,344
Wheat	Area sown	90,747	71,509	86,986	81,409	73,507	74,552
	Production	272,280	160,734	318,986	248,332	232,496	257,112
Barley	Area sown	24,141	21,392	21,714	20,269	21,968	20,959
	Production	61,208	40,070	62,457	51,879	62,437	60,748
Oats	Area sown	23,867	23,446	21,338	18,476	17,455	15,378
	Production	59,917	40,455	56,973	37,946	41,472	38,516

Source: BHAS

²⁸² Source: FAOStat.

Industrial crops can be considered residual since they cover less than the 3% of the total sown area. Only the production of tobacco has to be emphasized for its long tradition, for its export potential (even if in the recent years it is suffering from international competition), and for the significant amount of subsidies this crop has received in the past decade. Tobacco production has been economically important especially in certain area of Herzegovina. However subsidies are for tobacco (and in particular for tobacco processing plants that should also need to be modernized) are declining so also the tobacco cultivated area is following a declining trend.

Rapeseed and soybeans are following a growing trend driven by the reopening of a vegetable oil processing plant in Doboï (RS) so that the production at the moment has a significant geographical concentration.

Table 4.33. Main industrial crops: area harvested and production

		2002	2003	2004	2005	2006	2007
Sunflower	Area sown	196	160	239	215	308	226
	Production	137	82	154	99	374	165
Rape seed	Area sown	-	49	141	520	1,038	1,718
	Production	-	66	403	995	2,127	3,925
Soy-beans	Area sown	3,049	4,663	3,390	5,383	6,405	5,505
	Production	6,658	5,132	8,695	12,482	12,842	8,084
Tobacco	Area sown	3,301	3,152	2,759	2,906	2,438	2,313
	Production	5,173	3,279	4,246	4,421	3,916	3,265

Source: BHAS

Vegetables production, which already has a relevant importance in terms of contribution to the GAO, is following a considerable increasing trend showing a certain potential for development. As the other subsectors also vegetables are actually relying on imports, but the growing number of greenhouses, driven by international and, residually, by national support, is opening new opportunities and creating the basis for a significant change.

Potatoes production, suitable for all BiH territory, is dominating the subsector, followed by cabbage (used both for human and animal feed), green peppers, onions and tomatoes.

Table 4.34. Main vegetables: area harvested and production

		2002	2003	2004	2005	2006	2007
Potatoes	Area sown	44,004	43,243	43,216	41,512	40,758	40,783
	Production	404,491	302,225	447,080	458,615	410,422	387,239
Cabbage and kale	Area sown	6,894	6,775	6,769	6,525	6,509	6,496
	Production	85,605	71,085	84,732	86,729	99,182	82,410
Green pepper	Area sown	3,778	3,757	3,834	3,858	3,852	3,878
	Production	31,676	28,371	48,178	36,123	43,013	36,780
Onions	Area sown	5,315	5,197	5,463	5,297	5,259	5,235
	Production	34,035	27,006	34,472	34,336	41,520	34,822
Tomatoes	Area sown	4,038	3,946	3,995	4,066	3,982	3,891
	Production	37,669	31,929	48,178	30,738	40,700	33,287

Source: BHAS

In term of production maize (maize for fodder) is dominating also the feed crops sub-sector while in terms of area sown the most important feed crop is clover followed by Lucerne.

Table 4.35. Feed crops: area harvested and production

		2002	2003	2004	2005	2006	2007
Maize for fodder	Area sown	8,237	9,375	12,446	15,137	17,577	18,148
	Production	165,038	150,776	268,086	329,282	370,234	313,065
Lucerne	Area sown	37,761	36,635	37,071	36,736	38,335	38,254
	Production	204,384	129,690	182,450	190,696	184,591	122,062
Clover	Area sown	54,779	52,304	52,402	51,570	52,0145	52,315
	Production	276,626	169,899	238,106	231,982	223,066	93,193
Mixture of grasses and clover	Area sown	20,753	18,664	17,347	17,100	18,213	17,786
	Production	63,699	44,077	58,363	60,042	64,198	53,309

Source: BHAS

The total number of fruit trees in BiH at the end of 2007 was around 19 million almost the same figure of the pre-war level. Beside very favorable conditions for fruit production the slow development of this sub-sector can be identified in the lack of a specific interest due to its scarce profitability. Cultivation has been predominantly characterized by the use of domestic sorts which were not attractive for the international market.

Table 4.36. Tree fruit production

		2005	2006	2007
Plums	Trees of bearing number	10,916,968	10,803,955	11,003,183
	Production	95,891	123,234	138,707
Apples	Trees of bearing number	3,426,944	3,711,468	3,982,891
	Production	55,181	58,109	60,962
Pears	Trees of bearing number	1,690,968	1,658,610	1,735,986
	Production	22,505	23,034	20,696
Cherries	Area sown	691,606	684,858	720,870
	Trees of bearing number	8,625	8,852	10,495

Source: BHAS

4.1.6.8.2 Livestock production

As other Western Balkan Countries BiH has historically a long tradition for livestock farming and livestock production is a common activity for a large share of the rural population²⁸³. The prewar livestock sector was characterized by a dual structure: on the one side the SOEs and on the other side many small livestock producers. Both supplied a few large SOE met processors and a large number of small scale slaughterhouses. The overall picture is not so different today (this has been possible due to the absence of structural reforms in the agricultural sector) with a dual structure that

²⁸³ Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Sesnard Project, Sarajevo, September 2007.

is still characterizing the livestock sector. Still few large enterprises (partially privatized) and a large number of small livestock producers. In this sense it is significant to underline that a large share of livestock farms can be included among the subsistence farms.

Overall livestock production suffered enormously because of the 1992-1995 war with the total number falling between 40% and 60% depending the livestock category (various authors). Livestock repopulation has been different depending on the category. During the 1995-2000 period the recovery has been fast for all the categories, but since the year 2000 the trend start to be differentiated with a faster growth for sheep and poultry and a rather slower growth for cattle and pig. At the moment (2007) no one of the livestock categories have still reached the 1991 level, only sheep production has recovered appreciably reaching the 76% of pre-war figures.

It has to be emphasized that the cattle and the pig sector are also affected by a large amount of illegal imports which make even more difficult for local producers to be competitive.

Table 4.36 Livestock production 2005-2006

	2005	2006	2006/2005 index
Cattles	459,790	514,869	111.9
Sheep	902,731	1,004,696	111.3
Pigs	653.943	712,141	108.9
Pulty	10.339.886	13,331,564	128.3
Goat	73,474	76,498	104.1

Source: BHAS

As far as the dairy sector is regarded total milk production in 1991 was 875.000 liters with an average annual yield of 1410 liters per cow. The actual production (2006) reach only the 75% (or 662,385 liters) of the prewar level. The sector has been fully privatized but it is still highly fragmented and inefficient. Moreover although it is the most regulated and supported sector by the Entities (26% of the RS and 43% of FBiH agricultural budget) a very low proportion of the total milk production is collected and processed by dairies and the majority of the privatized companies has been purchased by foreign companies (Austrian, Croatian, German, Hungarian, Serbian). In addition to the regularly bought and officially foreign owned dairies it has to be underlined that a significant quantity of milk is imported (both legally and illegally) from Croatia, Germany, Hungary, Montenegro, Serbia and Slovenia.

Several additional structural problems and relevant limits characterize the sector:

- small size and fragmentation of dairy farms; dairy farms mainly oriented to subsistence and semi-subsistence;
- outdated processing facilities;
- low transport infrastructures;
- low yielding breeds;

- old fashioned breeding techniques;
- poor quality of milk.

In this frame it result obvious that local dairies suffer international and regional competition facing significant problems in responding to new challenges, new consumers orientation and generally are not able to increase the quality standards in order to be competitive.

So the overall situation of the dairy sector is rather faraway from being normalized and from recovering prewar levels however, even if several factors are denying a faster development, the dairy sector is showing important step forwards, as shown also by the increasing yields per cow (see table 4.37).

Table 4.37. Milk production

	1991	1998	1999	2000	2001	2002	2003	2004	2005	2006
Liters per head	1,410	1,760	1,920	1,784	1,779	1,857	1,935	1,999	2,110	2,220
Production (.000)	875,000	516,600	569,400	540,000	500,000	520,000	542,000	582,648	629,424	662,385

Source: FAOStat

Moving from diary to meat production it has to be emphasize that meat production has been strongly affected by war damages and it is one of the slowest sector in recovering mainly due to the complexity of its supply chain and to the importance and interdependency of its segments (slaughterhouses, processing facilities). So the reconstruction of the meat sector has been affected not only by the reduction of the stocks, but also from the damage to the industry, from the disruption of the market channels, and after the end of the war from the lack of specific and consistent policies.

According FAO estimates even if the per capita consumption of meat is particularly low BiH is self sufficient only in the sheep and goat meat subsectors while it is strongly dependent on imports for beef, pig and poultry meat sub sectors (Table 4.38).

Table 4.38. Meat production and consumption in BiH (2000-2007)

		2000	2001	2003	2003	2004	2005	2006
Beef	Production	14.3	14.1	14.4	14.8	15.0	15.4	15.6
	Consumption	24.1	28.8	34.0	23.3	20.0	21.9	21.9
Pig meat	Production	10.8	11.0	10.0	8.2	9.6	9.9	10.2
	Consumption	18.4	18.6	15.1	15.5	19.3	21.7	21.1
Poultry meat	Production	7.2	8.4	8.4	8.6	8.5	8.7	9.0
	Consumption	19.2	23.4	14.9	19.3	17.8	20.5	15.3
Sheep meat	Production	6.3	6.2	6.4	6.6	7.8	8.0	8.1
	Consumption	6.3	6.3	6.4	6.9	8.1	8.4	8.4

Source: FAOStat

Beef, the most important sub-sector in terms of production and consumption, is still also the slower sector in recovering due to the high regional and European competition (foreign producers are facilitated by a very low level of protection) and the large amount of imports, the large amount of illegal imports, the fact that the majority of farms are oriented to milk production and are not specialized in beef cattle.

Pig meat is partially facing the same problems of the beef sub-sector (regional and European competition; consistent amount of imports; consistent amount of illegal imports) and it presents the lowest level of self-sufficiency in the meat sector since domestic production did not reach to cover the 50% of domestic consumption in the 2004-2006 period.

Poultry meat production has been characterized by the faster growth of the sector in the 1995-2000 period, while it has steadily increased in the 2001-2006 period.

Sheep meat production has a long tradition in BiH, due in particular to the historical presence of a strong Muslim community. After the 1992-1995 war production and consumption structure at the local level is partially changed also due to the forced internal migration. Obviously pig breeding and pig meat consumption is slightly declined in the area characterized by a growth of the Muslim population while sheep production and consumption is increased. However the sheep sub-sector has been always very important in term of livestock fund, meat production and consumption, cheese production and consumption.

4.1.6.9 Agri-food trade

The scarce competitiveness of the sector is underlined also by the structural trade deficit. Agricultural products account for a significant percentage of the total foreign trade deficit and basically BiH does not achieve self-sufficiency in none of the major agricultural products. Somehow the trade deficit, especially as far as the agricultural trade is regarded, has historical roots since also during the time of ex-Yugoslavia BiH was purchasing a large share of agricultural products from the other republics and from abroad. Both total imports and total exports have increased significantly after the war, with the trade deficit somehow declining, but not showing perspective to reach the balance.

Table 4.39. Agricultural import and export in BiH 2003-2006 (data in .000 KM)

	Value of agriculture		Agricultural trade deficit
	E	I	
2003	75.9	941.6	- 865.7
2004	90.0	994.1	- 904.1
2005	120.4	1,009.4	- 889.0
2006	138.2	983.7	- 845.5

Source: author's elaboration on BiH Chamber of Commerce data

The product groups accounting for the largest share of agricultural and food imports (in value) are beverages, cereals, tobacco, edible preparations, sugars and dairy products. As far as exports are regarded the most important products are eatable preparations, beverages, fruit (fresh plums and frozen raspberries) and vegetables (mushrooms)²⁸⁴.

Overall the trade with EU accounts for more than a half of the total trade, both regarding agricultural products and non-agricultural products. The most important individual trading partners are, however, Croatia, Germany, Italy, Montenegro, Serbia and Slovenia.

²⁸⁴ Data from the Chamber of Commerce of BiH and FAOStat.

4.2 The Forgotten Countryside: Agricultural Development and Agricultural Policies. The case of Republika Srpska

4.2.1 The Agricultural Sector in RS

As widely emphasized by literature and international organization reports the analysis of the agricultural sector of RS (this consideration is suitable for the entire BiH) is generally affected by outdated²⁸⁵ and scarce data, and because of this situation it is often necessary to rely on estimation, on indirect indicators and on considerably aged data set.

4.2.1.1 Agriculture in the economy

Considering the pre-war situation agriculture covers now only a very low share in the total economy: apart for war damages and effects on due to decline on population the decline can be partially explained with the dismantling of agricultural companies and cooperatives, with the change of ownership structure, with slow process of full privatization and company restructuring, and with the lack of public support to the sector.

However even if the share of primary agricultural production in the GDP is declining significantly, agriculture is still playing a relevant role in the social and economic development of RS. Moreover in this case figures show a consistent diversity between RS and Federation where primary agricultural production accounts for a rather smaller percentage of the GDP.

Table 4.40. Value added by economic sector of the Gross domestic product (data in %)

Economic sector	2002			2003			2004			2005		
	Bosnia Herzegovina	Federation B&H	Republic of Srpska	Bosnia Herzegovina	Federation B&H	Republic of Srpska	Bosnia Herzegovina	Federation B&H	Republic of Srpska	Bosnia Herzegovina	Federation B&H	Republic of Srpska
Agriculture*	12.11	8.44	20.44	11.46	8.36	17.86	10.41	7.61	16.08	10.12	7.07	15.91
Industry	26.03	27.65	22.96	26.83	28.72	23.37	24.34	26.15	21.00	24.29	25.98	21.46
Services	61.86	63.91	56.60	61.69	62.92	58.81	65.25	66.24	62.92	65.59	66.95	62.68
Total**	100	100	100	100	100	100	100	100	100	100	100	100

* Including hunting, forestry and fishery.
** Total includes also the Brcko District which is excluded in the sectorial breakdown.

Source: author's calculation from BHAS – Bosnia Herzegovina Statistical Agency

Comparing Republika Srpska with other Countries of the region it has to be emphasized that agricultural production accounts for a higher share in the overall GDP only in Albania (23% in 2005), while the overall value is lower in Macedonia FYR (13% in 2006) and Serbia (13% in 2005),

²⁸⁵ Last completed agricultural census dates back to the year 1981. The agricultural census of 1991 is partially incomplete due the beginning of the war and fail to provide data on several items.

and significantly lower in Bulgaria (9% in 2006), Croatia (8% in 2006), Montenegro (8% in 2006) and Romania (11% in 2006).

Table 4.41. Value added of the agricultural sector on the Gross domestic product in selected countries (data in %)

	2000	2001	2002	2003	2004	2005	2006
Albania	29	27	26	24	24	23	
Bulgaria	14	14	12	12	11	9	9
Croatia	9	9	9	7	8	8	7
Macedonia FYR	12	12	12	13	13	13	13
Montenegro	13	13	13	13	13	13	8
Romania	13	15	13	13	14	10	11
Serbia	19	20	16	14	14	13	
Low income countries	26	26	24	24	22	22	20
Euro Area	2	2	2	2	2	2	2
OECD Countries	2	2	2	2	2	2	2

Source: World Bank

4.2.1.2 Agricultural labor force

Agricultural labor force shows a rather stable trend in the last years even if it has never recovered pre-war condition. However in this case it is probably necessary to underline that this data fails to describe the situation since a large part of the population, also actively employed in services or industry, works “part-time” in agriculture in order to have an additional source of income (see x.x).

Table 4.41. Formal employment by sector of activity in RS, 1991 and 1997- 2006 (in thousands)

	1991	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Agriculture	15	n.a.	n.a.	11	10	10	10	10	9	8	8
Industry	173	n.a.	n.a.	96	94	92	88	89	84	82	76
Services	149	n.a.	n.a.	114	123	118	140	138	144	154	163
Total	388	202	244	221	228	220	238	237	237	244	247

Source: BHAS – Bosnia Herzegovina Statistical Agency

4.2.1.3 Agricultural area

Agricultural area cover 1.007 ha on a total area of approximately 2.490 ha. Most of the agricultural area consists in arable fields and gardens that cover approximately the 60% of the total agricultural area (596,000 ha); the rest is formed by natural meadows (18-20%), pastures (15-17%), orchards (5%) and vineyards (less than 0.5%) .

The private sector holds approximately the 95% of the agricultural area while the remaining 5% is held by agricultural enterprises and cooperatives²⁸⁶.

Table 4.42. Agricultural area by categories of land use (data in .000)

²⁸⁶ Data from the Institute of Statistics of Republika Srpska.

	2000	2001	2002	2003	2004	2005	2006
Agricultural area	985	975	968	998	999	1002	1007
Arable fields and gardens	580	575	572	586	590	593	596
Orchards	49	50	50	51	51	50	50
Vineyards	0.2	0.2	0.2	0.3	0.4	0.4	0.4
Meadows	196	191	188	194	175	189	188
Pastures	156	155	155	164	177	167	166
Other	3.8	3.8	2.8	2.7	5.6	2.6	6.6

Source: Institute of Statistics of RS

4.2.1.4 Farm Structure

The agricultural sector of RS is still characterized by a dual structure with an extremely large number of individual farms²⁸⁷ and a less significant number of agricultural enterprises and cooperative farms. In 2006 agricultural enterprises and cooperatives covered the 5% of the total agricultural area while the 95% was covered by farms belonging to private owners.

Since it is not possible to rely on the last complete agricultural census, that dates back to the year 1981, this dual structure can be partially explained considering the last estimation on farm structure (Table 4.43), the data related to crop production (Table 4.44) and to the number of livestock and poultry heads (Table 4.45) that show how the majority of the production derives from individual farms.

Table 4.43. Farm structure in RS and BiH related to the land-property size in the period 1905-2006

Land property size in ha	Farms - share in % (data related to BiH)				Farms - share in % (data related to RS)		
	1905	1931	1960	1981	1990*	1997*	2006**
up to 1.00	40.7	34.0	38.4	33.8	34.5	34.5	33,5
1.01 - 5.00	26.4	34.6	36.6	49.4	48.6	49.0	48,0
5.01 - 10.00	18.7	21.0	19.5	13.9	13.7	13.5	14,5
Above 10.00	14.2	10.4	5.5	2.9	2.8	2.0	4,0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100

*Estimation source: FAO, PLUD - Inventory of post war situation of land resources in Bosnia and Herzegovina.
** Estimation source: Department of Agricultural Economics, University of Banja Luka.

Source: BiH Agricultural Census, University of Banja Luka, FAO

According to the 2006 estimation²⁸⁸ the 81.5% of farms is lower than 5 ha and only the 4% is larger than 10 ha. Average farm size is particularly low also in a comparison with NMS-10²⁸⁹ where, in 2005, the farms smaller than 5 ha were the 70.3%²⁹⁰ and the farms larger then 10ha were around the

²⁸⁷ According the 1981 agricultural census in BiH there were 534528 farms.

²⁸⁸ Source: Department of Agricultural Economics, University of Banja Luka.

²⁸⁹ Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, Slovenia.

²⁹⁰ Source: authors calculation from the Farm Accountancy Data Network (FADN).

14%²⁹¹. Altogether the private sector of RS is affected by several negative constraints that limit its competitiveness: the extremely large number, the small size, the land fragmentation that prevent the formation of a consistent group of economically and technically efficient units.

Moreover the scarce competitiveness of the sector is underlined also by the structural trade deficit.

4.2.1.5 Crop Production

A major part of the sown area is dominated by cereals that covers approximately the 65% of the total. Vegetables represent the 10%, fodder the 22% and the residual 3% is covered by industrial crops.

Table 4.44. Sown area (data in .000)

	Total Sown Area	Cereals	Fodder	Vegetables	Industrial Crops
2000	395	268	81	41	5
2001	380	260	75	41	4
2002	354	238	74	38	4
2003	334	217	75	37	5
2004	350	235	72	38	5
2005	345	226	74	38	7
2006	348	225	78	37	8

Source: Institute of Statistics, RS

The grain crops surface is dominated by maize that cover almost the 64% and wheat that cover approximately the 22%. Oats and barley account for the 6% and 5%, while the residual 3% is covered by rye and triticale.

Table 4.45 Sown area: cereals (data in .000)

	Total Sown Area	Maize	Wheat	Oats	Barley	Other
2000	268	155	77	21	11	4
2001	260	147	80	19	12	2
2002	238	143	61	19	12	3
2003	217	141	46	19	9	2
2004	235	141	63	17	11	3
2005	226	142	57	14	10	3
2006	225	143	50	14	12	6

Source: Institute of Statistics, RS

²⁹¹ Source: authors calculation from the Farm Accountancy Data Network (FADN).

In 2006 nearly half of the vegetables' surface consisted of potatoes, while other major crops were beans, cabbage, cucumber, onions, peppers and tomatoes.

Table 4.46. Sown area: vegetables (data in .000)

	Total Sown Area	Potatoes	Beans	Cabbage	Cucumber	Onions	Peppers	Tomatoes	Other
2000	41	20	5	3	1	2	3	3	44
2001	41	19	5	3	2	2	3	3	4
2002	38	18	5	3	2	2	2	2	4
2003	37	17	5	3	1	2	2	2	5
2004	38	17	5	3	2	2	2	2	5
2005	38	17	4	2	2	2	2	2	6
2006	37	16	4	2	2	2	2	2	7

Source: RS Institute of Statistic

The fodder area, that covers almost the 22% of the sown area, is divided among maize for fodder, Lucerne hay and clover hay.

The residual sown area covered by industrial crops is divided mainly among tobacco, soya bean and sugarbeet. Tobacco has been historically an important cultivation especially in the Mediterranean areas where there are small leaf sorts of tobacco with an extraordinary high quality. The tobacco factory of Sarajevo (Fabrika duhana Sarajevo - FDS) was founded in 1880 during the Austro-Hungarian Occupation and was one of the first modern industries in Bosnia and Herzegovina²⁹². The Factory is still producing as one of the most successful Bosnian enterprises and it has a national and regional dimension with its headquarters is in Sarajevo and branches in Bihać, Tuzla, Čitluk and Banja Luka and Belgrade (Serbia) and Skopje (Macedonia FYR). Along the years tobacco has been one of the production with the higher added value, together with maize has been one of the few crops that have been exported and at the same time has been one of the major beneficiaries of public subventions.

4.2.1.6 Fruit production

Fruit production is and has been historically dominated by plums, apples and pears and it has never represented an attractive economic sector. The lack of attractiveness was related to the lack of interest for three-crops implementation and for the lack of irrigated surfaces. Besides the three main fruits production in the recent years minor crops, as berry fruits (strawberries, raspberries), are tending to increase.

Overall RS, as well as the all BiH, do not produce enough fruit to satisfy the internal demand.

²⁹² Fabrika duhana Sarajevo: <http://www.fds.com.ba/eng>.

Table 4.47. Fruit production (data in .000 tons)

	Plums	Apples	Pears
2000	63	27	9
2001	56	21	7
2002	27	23	7
2003	61	29	9
2004	107	33	10
2005	60	34	12
2006	74	37	12

Source: Institute of Statistics of Republika Srpska

4.2.1.7 Livestock Production

Livestock production in RS present similar trends and constraints as well as in the overall BiH. Overall, taking into account the ownership structure, the large majority of the livestock fund is concentrated in the private sector. Considering the overall farm structure of the private sector (a large number of fragmented small properties) it emerge how the livestock sector in many cases is characterized by a low number of heads per farm.

Table 4.48. Number of livestock and poultry heads in RS

	December 2005		December 2006	
	Agricultural enterprises and cooperative farms	Individual households	Agricultural enterprises and cooperative farms	Individual households
Cattle	4,562	215,503	6,340	269,240
Pigs	4,054	529,874	5,467	590,478
Sheep	4,846	390,671	3,215	457,375
Poultry	1,587,234	4,025,652	1,042,305	6,304,259

Source: RS Institute of Statistic

4.2.1.8 Agri-food trade

As for the all BiH also RS present a significant deficit in agro-food trade. Agricultural products account for a significant percentage of the total foreign trade deficit and basically RS does not achieve self-sufficiency in none of the major agricultural products. However during the last years the overall pattern and balance of trade has been moving significantly. As far as the agro-food trade is regarded in 2006 and 2007 the deficit followed a declining trend leading to a reduction of the negative trade balance. In 2006 agro-food total export has been approximately the 20% of the agro-food total import, while in 2007 total export reached the 27% of total import.

Table 4.49. Import and export in agriculture, hunting and forestry (data in .000 KM)

	2005	2006	2007

Export	17,555	24,861	42,995
Import	140,052	122,548	158,073

Source: author elaboration from RS Institute of Statistics, External Trade Release

4.2.3 Main Actors of the Agricultural Sector

4.2.4 Assistance to Agriculture: Aim and Rules of Subsidies

4.2.4.1 Assistance to Agriculture: the 2000 – 2007 Period

The agricultural support system of RS can be considered relatively weak taking into account that in the last decade the agricultural budget never exceeded the 3% of the national budget and that the policy measures adopted have been often characterized by a short term perspective and by regular annual revisions.

Table 4.50. Agricultural budget 2000-2007 (data in .000 KM)

2000	2001	2002	2003	2004	2005	2006	2007
7,562	16,149	17,781	22,149	27,607			50,000

Source: Ministry of Agriculture of RS

Before 2000 agricultural support in RS was characterized by individual decisions made had hoc by the Government or the Ministry of Agriculture and it was provided mainly to certain state-owned companies. In this sense public aid to agriculture was missing of an overall strategy (both short or long term) and was basically unfair since subsidies were not allocated according clear and transparent rules. Policy measures were adopted on an annual base and were often characterized by a significant delay in their approval and implementation. Such frame created a situation of uncertainty among agricultural producers since in most of the cases they did not have any indication on the subsidies orientation and any access to credit so that they had to invest their own resources.

With the year 2000 some agricultural policy instruments were introduced moving a step toward the creation of a more clear and better defined strategy. Measures as regress for breeding stocks in livestock production and premiums for milk and tobacco were introduced; moreover significant resources (38% of total support) were used in form of extended credits and borrowings.

In 2001 the agricultural budget more than doubled compared to the year before, the measures introduced the previous years were confirmed and additional measures were introduced. 2002 has been positive for the introduction of the Law on Allocation and Disbursement of Resources for Agriculture and Rural Development Support, which provided long-term grounds of support for this sector, but at the same time has been characterized by some critical aspects related to the significant fluctuations and instability of the different premiums: premium for milk production, as well as

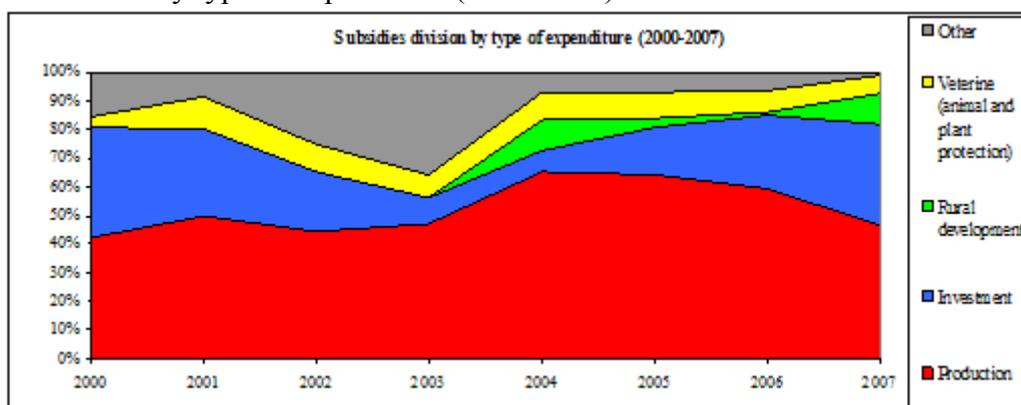
breeding stock subsidies in livestock were halved and even tobacco and see wheat subsidies were reduced significantly. Overall total resources for agriculture development support remained at the level of previous year (+10%) and government started co-financing operating costs of Agriculture Extension Services, as one of indirect support measures.

2003 has been characterized by the availability of additional resources (+25% on an annual basis) and a significant diversification of the overall program. Apart for a further growth of milk and tobacco premium for the first time it were introduced subsidies for fruit growing, feed and medicinal herb plantation production. An important measure, that became effective in 2004, has been the provision of subsidies for interest rate for agricultural credits (around 10% of total resources). This significant diversification included also the introduction of resources for rural infrastructure development that were planned but not used due to the need to use that financial resources to intervene to mitigate flood and drought consequences.

In 2004 overall resources grew of an additional 25% and apart for a further strengthening of the support to milk and tobacco new grants for the veterinarian sector were introduced and first for the first time subsidies for contracted vegetables production and for the establishing of new orchards and vineyards were set up.

The increase of the agricultural budget continued also during the 2005-2007 period that in general has been characterized by a lower degree of fragmentation of the previous period: in these three years agricultural policy has been somehow consolidated even if major constrains as lack of transparency, lack of stability, low accessibility, overall lack of a long term strategy have not been overcome. During this three years period direct support to production has been slightly reduced in favor of investments and support for rural development and the veterinary sector.

Figure 4.2. Subsidies by type of expenditure (2000-2007)



Source: author's elaboration

Even if the 4% of the total RS budget indicated by the Law on Allocation and Distribution of Agriculture and Rural Development Support of 2002 have not been reached the 2000-2007 period have been characterized by a significant increase of resources.

During the period the major share of agricultural support have been allocated through direct support to certain types of production (milk, seed, tobacco) and only in the last years significant additional resources were assigned to rural development, long term investment and to the veterinary sector. Although this positive shift of resource towards rural development a clear mechanism for distribution of these funds have not yet been well developed in terms of transparent rules on how to distribute such resources to beneficiaries.

So among the tendencies that have characterized the agricultural support system in the 2000-2007 period it is relevant to highlight the following:

- total amount was increased significantly since 2000 when it was KM 7.562 million to KM approximately 50 million or for 6.6 time;
- more than the 50% of the agricultural budget has been allocated to direct support to production and to income support in particular for certain products (milk, seed, and tobacco);
- many analysts agree that a significant amount of subsidies tends to end in the pockets of a negligible part of (large) producers while a large number of (small) agricultural producers had access to relatively small subsidies²⁹³. This suggest a lack of an equity principle in subsidy allocation and a failure of scope since extremely small subventions have a social more than a developmental character;
- funds for agricultural credit has been often characterized by an unclear mechanism of functioning, however with the new strategy this funds should be partially transferred to rural development;
- a not so negligible category has been represented by those subsidies that has been allocated by Ministry decision or under diverse “development programs” characterized by lack of information regarding purpose and selection criteria;

²⁹³ Z. Vasko, 2006.

- veterinarian grants have been allocated more for establishment and financing of veterinarian institutions than for animal health protection;
- funds have been allocated through 47 different items: a so wide spectrum could suggest on the one hand that the overall strategy failed to have a long term perspective and on the other hand that policy aims have been largely unclear.

Subsidies chosen by RS did not have developmental character during the observed period, and from the structure of beneficiaries, it could be concluded that they were used only by certain groups of beneficiaries, while they had to small impact on stronger support of current or long-term development of larger group of producers. Similarly, in the previous period not a single more serious analysis of subsidies impacts was done, which would give indications to what would be impact of government financial support to growth, increased competitiveness and change of production structure. Actually, this analysis indicates irrational use and poor targeting of resources, which significantly puts under question society's readiness to provide support to agriculture sector. When we add to this extreme inconsistency of the measures and mechanisms implemented at RS level and individual local administration levels, as well as very poor monitoring of targeting resources and evaluating effects of the measures, we get clearer picture on appropriateness of RS agricultural policy and capacities of responsible institutions.

4.2.4.2 The strategy to 2015

During 2006 the Ministry of Agriculture has carried out important reforms and created and adopted three mayor documents: the "Strategy for agricultural development of the Republic of Srpska by 2015" (including a new model for agricultural subsidies); an action plan for the implementation of the strategy; and a new regulation on subsidies. All three documents come out with the following understanding:

1. RS Government shall channel its support to the agrarian sector through the "Agrarian budget" and the total amount of resources should reach the 6% of the domestic revenues during the first phase of the strategy and the 8% during the second phase.
2. Agricultural support should be addressed through the current system of subsidies and incentives (axis 1), through support to development programmes (axis 2), and through support to rural development and non-commercial holdings (axis 3).
3. In the course of the initial three years of the realization of the Strategy, the ratio of resources directed should amount to 40 (axis 1):40 (axis 2):20 (axis 3), and following the period of three years, the ration should shift to 30:50:20. Therefore, in both of the periods the

emphasis is put on development (axis 2 and axis 3), with 60, i.e. 70% of the volume of support, from the aspect of multi-functional development of agriculture.

The first axis identified in the Strategy express a continuity with the past since it is focused on direct support to primary production. The share of the total budget foreseen for production and income support results to be significant in consideration of the objectives that should be achieved through agricultural production restructuring: the volume of the most profitable crops should be increased and of livestock production should be increased; the use of pastures and meadows should be encouraged; average farm size should be enlarged; area under protein crops and organic production should be increased; quality and yield per unit should be improved.

To reach these objectives axis one foreseen the following instruments:

- resources for Intervention in agriculture (premiums for certain agricultural products as fresh milk, fruits and cereals under certain conditions; compensation for use of biological growth factors; financing costs of market intervention; financing agriculture improvement measures);
- compensation for production growth factors (high quality wheat, maize and soybean seed for registered commercial farms; artificial fertilizer for registered commercial farms; diesel D2 for registered commercial farms);
- agricultural producers support through Introduction of model of direct payment per hectare or per head (per hectare for commercial soybean, sunflower, sugar beet, rape depending on processing capacities availability, medicinal herbs, aromatic herbs, and plants important for honey production and organic) and integrated production; per head for bull fattening; pig fattening; lamb fattening; broiler production);
- support for market of commodities (primary producers) delivered to local processing industry with objective of finalization and export;
- financing of agriculture improvement measures.

Axis two is focused on long-term investments support in order to provide resources to promote farm enlargement, renovation of technical and technological equipment (purchase of agricultural machinery and equipment), production structure change (investments in livestock, mother herd, buildings, equipment), raw-material finalization (laboratories), production for export and import substitution. Moreover investments are planned also to support those programs aimed to the valorization of those products which have a significant added value or which have a strong connection with tradition and local culture. Apart for these aims an important element that has to be underscored is the priority that this axis give to business owners are under 40 years old and programmes oriented to export and import substitution.

Axis three (support to rural development and non-commercial farms) which is the smaller axis in terms of resources includes a wide range of different social and economic activities:

- a) rural development measures are planned to follow an integrated approach that recognize the role of rural economy and consider agriculture as one of its major components and not as the only component. In this frame the objectives set within the rural development strategy are the following:
- infrastructure development;
 - support services development (reconstruction and equipping of rural center for cultural activities, healthcare and veterinary services);
 - vocational training;
 - diversification;
 - valorization of local products;
 - support for business activities development within cooperatives and associations.
 - investments in other activities needed in rural areas.
- b) support to non-commercial farms includes any action address to sustain the large number of subsistence and semi-subsistence farms present in RS. The aim of this support, which has a strong social character, is to ensure adequate living standard for those households who have not the capacity or the human and financial resources to operate on the market.

Table 4.51. Planned allocation of annual support for agriculture and rural development for the 2008-2010 period

	Type of Support	Amount (KM)	%	
A	Direct production and income support			
1.	Breeding stock premium	2,545,000	8.5%	41%
2.	Milk premium	8,580,000	28.8%	
3.	Fattening premium	3,950,000	13.3%	
4.	Industrial crop premium	2,300,000	7.7%	
5.	Seed subsidies	2,326,530	7.8%	
6.	Seedling subsidies	396,600	1.3%	
7.	Fertilizer subsidies	2,805,000	9.4%	
8.	Diesel subsidies	3,230,000	10.8%	
9.	Seed premium	471,015	1.6%	
10.	Seedling premium	427,500	1.4%	
11.	Current subsidies	2,768,355	9.3%	
	TOTAL:	29,800,000	100.0%	
B	Investment support:			
1.	Land purchase and consolidation	3,000,000	11%	39%
2.	Agricultural machinery and equipment purchase	4,000,000	14%	
3.	Investments in livestock (mother herd, equipment)	4,000,000	14%	
4.	Investments in quality control laboratories	3,500,000	13%	
5.	Investments in irrigations systems	4,000,000	14%	
6.	Establishment of perennial plantations	4,500,000	16%	
7.	Establishment of glass- and plastic green houses	2,000,000	7%	

8.	Construction of processing and refining facilities	3,000,000	11%	
	TOTAL:	28,000,000	100%	
C	Rural development support			
	TOTAL:	14,200,000	100%	20%
TOTAL:		72,000,000		100%

Source: Ministry of Agriculture of RS

4.2.5 Looking for Farmers in RS: Main Findings of the Survey

Within the scope and the limits indicated the survey suggested a number of evidences. Basically the agriculturalists involved in the interviews were subsistence or semi-subsistence farmers or commercial farmers of rather small dimension leading agricultural activities in the regions of Banjaluka (Region 1), Doboј (Region 2), Bijeljina (Region 3), Sokolac (Region 4) and Trebinje (Region 5).

As indicated in the methodological chapter of this thesis farmers has been selected randomly among who is asking for advices and the number per region has been partially balanced considering: the total population and the total sown area of each region. The survey involved altogether 215 agricultural households/small farmers.

Table 4.52. Respondent area

Area	Respondent
Banja Luka	66
Bijeljina	21
Doboј	44
Sokolac	26
Trebinje	45
No response*	13
Total	215

* The "no response" category includes incomplete questionnaires.

Source: author's survey

4.2.5.1 Farm structure and ownership

The sample in the survey respects the farm size indicated by the last estimations (a large number of farms under 5 ha and suggests significant regional differences (in Trebinje area farm size is particularly low due to natural conditions)).

Table 4.53. Land area

Farm size	Frequency	Percent	Cumulative Percent
0-1 ha	17	8,4	8,4
1-5 ha	76	37,4	45,8
5-20 ha	74	36,5	82,3
20-50 ha	23	11,3	93,6

50-100 ha	9	4,4	98,0
>100 ha	4	2,0	100,0
Total	203	100,0	

Source: author's survey

From a geographical and morphological point of view farms included in the survey are located in flat areas (47,8%) and in hilly areas (50,2%) and generally present favorable climate and soil conditions for diverse agricultural production and livestock breeding.

Table 4.54. Location

	Frequency	Percent	Cumulative Percent
Flat area	97	47,8	47,8
Hilly area	102	50,2	98,0
Mountain area	3	1,5	99,5
Flat area + hilly area	1	0,5	100,0
Total	203	100,0	

Source: author's survey

Land ownership is still under a transition process. A large share of agricultural households do not have formal documents to certify their property or the rental status of the land (renting without contract is a quite widespread). Besides the 50% of registered properties there is a variety of situations: in some cases land “belongs to grandfathers”, in other cases the process of registration is “ongoing”. An exception is represented by the few big producers who are in possession of the legal documents for the land they have rented. This situation could suggest a strong institutional and organizational weakness.

Table 4.55. Land ownership structure

		Frequency	Percent	Cumulative Percent
Valid	Case 1	102	50,2	51,5
	Case 2	28	13,8	65,7
	Case 1 + Case 4	13	6,4	72,2
	Case 1 + Case 5	12	5,9	78,3
	Case 1 + Case 2	10	4,9	83,3
	Case 5	9	4,4	87,9
	Case 1 + Case 3	6	3,0	90,9
	Case 3	4	2,0	92,9
	Case 4	4	2,0	94,9
	Case 4 + Case 5	3	1,5	96,5
	Case 1 + Case 2 + Case 5	3	1,5	98,0
	Case 1 + Case 4 + Case 5	2	1,0	99,0
	Case 3 + Case 4	1	0,5	99,5
	Case 3 + Case 4 + Case 5	1	0,5	100,0

	Total	198	97,5	
Missing	No response	5	2,5	
Total		203	100,0	
Case 1 = Land of property registered ; Case 2 = Land of property (but not in possession of legal documents); Case 3 = Land of property with ongoing registration process; Case 4 = Rented land with contract; Case 5 = Rented land without contract = 5.				

Source: author's survey

Labour is largely the main input and in general the overall level of mechanization remains poor also due to the average farm size which is largely inappropriate for a modern mechanization and to the lack of financial resources that would allow to purchase or to rent machinery. Moreover the existing technical equipment is generally extremely outdated and only few farms present a modern technical equipment.

Table 4.56. Mechanical equipment

	Total responses (valid)	Of property	Rented	From association/cooperative	No	
Tractor (any size)	202	131	29	1	41	
Combine for maize	192	24	34	4	130	
Combine for wheat	191	25	41	2	123	

Source: author's survey

4.2.5.2 Production patterns

Most of the farms are not specialized (this is linked also with size) and production is mainly oriented to subsistence (labour is largely the main input) so the way for market and competitiveness is in many cases relatively far away. Exceptions are represented by the few big producers in Banjaluka, Bijeljina and Dobož area who are predominantly market oriented.

The major grain crops are maize and wheat while on the vegetable side the more important production are potatoes, cabbage, tomatoes and peppers. Tobacco, soybean, sunflower and grape are not so significant among the farmers included in the survey.

Although their importance also wheat and maize productions are scarcely competitive since they are characterized, as all the agricultural sector, by small production units: for wheat the 62% of plots are under 1ha and the 88% under 5ha; for maize the situation is rather similar since 42% of plots are under 1ha and the 82% are under 5ha.

Table 4.57. Wheat: area seeded

		Frequency	Percent	Cumulative Percent
Valid	0	73	36,0	36,1

	0-0.5 ha	45	22,2	58,4
	0.5-1 ha	35	17,2	75,7
	1-5 ha	34	16,7	92,6
	5-20 ha	8	3,9	96,5
	50-100 ha	3	1,5	98,0
	20-50 ha	2	1,0	99,0
	>100	2	1,0	100,0
	Total	202	99,5	
Missing	System	1	,5	
Total		203	100,0	

Source: author's survey

Table 4.58. Mays: area seeded

		Frequency	Percent	Cumulative Percent
Valid	0	67	33,0	33,2
	1-5 ha	53	26,1	59,4
	0.5-1 ha	25	12,3	71,8
	0-0.5 ha	24	11,8	83,7
	5-20 ha	20	9,9	93,6
	20-50 ha	8	3,9	97,5
	50-100 ha	4	2,0	99,5
	>100	1	,5	100,0
	Total	202	99,5	
Missing	System	1	,5	
Total		203	100,0	

Source: author's survey

Fruit production does not have a significant place in the total agriculture of the research area. New small plantations of tree and stone fruits and raspberries grown by a large number of farmers in Rudo deserve attention.

Livestock breeding is of an extremely extensive nature, with cattle nutrition based on grazing in summer and hay in winter. Livestock productivity is low, particularly that of cattle, which is due to the lasting lack of system in all segments of livestock breeding as well as failure to have an organized approach to the production.

Mixed cattle breeds of low genetic potential are dominant and the current system does not even provide for their full use. However, increased artificial cattle insemination which indicates improved work of veterinary services and better education of farmers is encouraging.

Generally there is a low number of head per capita:

- 60% of farmers who have cattle has less than 5 heads;
- 55% of farmers who has pigs have less than 5 heads;
- 60% of farmers who has sheep have less than 10 heads;
- 60% of farmers who has poultry have less than 20 heads.

Table 4.59. Livestock production - Cattle (per head)

		Frequency	Percent	Cumulative Percent
Valid	0	33	16,3	16,3
	1	13	6,4	22,8
	2	21	10,3	33,2
	3	22	10,8	44,1
	4	18	8,9	53,0
	5	13	6,4	59,4
	6	17	8,4	67,8
	7	8	3,9	71,8
	8	4	2,0	73,8
	9	3	1,5	75,2
	10	13	6,4	81,7
	11-15	19	9,4	91,1
	16-20	5	2,5	93,6
	21-25	5	2,5	96,0
	>26	8	3,9	100,0
	Total	202	99,5	
Missing	System	1	,5	
Total		203	100,0	

Source: author's survey

Table 4.60. Livestock production - Pigs (per head)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	31	15,3	15,3	15,3
	1	6	3,0	3,0	18,3
	2	37	18,2	18,3	36,6
	3	18	8,9	8,9	45,5
	4	11	5,4	5,4	51,0
	5	7	3,4	3,5	54,5
	6	6	3,0	3,0	57,4
	7	4	2,0	2,0	59,4
	8	6	3,0	3,0	62,4
	9	1	,5	,5	62,9
	10	11	5,4	5,4	68,3
	11-15	14	6,9	6,9	75,2
	16-20	16	7,9	7,9	83,2
	21-25	9	4,4	4,5	87,6
	>26	25	12,3	12,4	100,0
	Total	202	99,5	100,0	
Missing	System	1	,5		
Total		203	100,0		

Source: author's survey

Table 4.61. Livestock production - Sheeps (per head)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	107	52,7	53,0	53,0
	1-10	24	11,8	11,9	64,9

	11-20	16	7,9	7,9	72,8
	21-30	16	7,9	7,9	80,7
	31-40	8	3,9	4,0	84,7
	41-50	7	3,4	3,5	88,1
	51-60	3	1,5	1,5	89,6
	61-70	3	1,5	1,5	91,1
	71-80	2	1,0	1,0	92,1
	81-90	1	,5	,5	92,6
	91-100	5	2,5	2,5	95,0
	100-125	3	1,5	1,5	96,5
	126-150	2	1,0	1,0	97,5
	151-200	3	1,5	1,5	99,0
	>201	2	1,0	1,0	100,0
	Total	202	99,5	100,0	
Missing	System	1	,5		
Total		203	100,0		

Source: author's survey

Table 4.62. Livestock production - Poultry (per head)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	44	21,7	21,8	21,8
	1-10	43	21,2	21,3	43,1
	11-20	34	16,7	16,8	59,9
	21-30	19	9,4	9,4	69,3
	31-40	6	3,0	3,0	72,3
	41-50	16	7,9	7,9	80,2
	51-60	6	3,0	3,0	83,2
	61-70	6	3,0	3,0	86,1
	71-80	2	1,0	1,0	87,1
	81-90	2	1,0	1,0	88,1
	91-100	14	6,9	6,9	95,0
	100-125	4	2,0	2,0	97,0
	151-200	2	1,0	1,0	98,0
	>201	4	2,0	2,0	100,0
	Total	202	99,5	100,0	
Missing	System	1	,5		
Total		203	100,0		

Source: author's survey

Alternative productions like honey and bee keeping are still at a substantial unprofessional level, although Banjaluka and Trebinje area present several cases of excellence due to natural conditions, well organized beekeeping associations and consumption tradition.

4.2.5.3 Economic performances

4.2.5.3.1 Subsistence vs market

Grain, fruit and vegetables are produced mainly for self consumption while the marketed share is considerably low. The case of fruit production, where only the 5% produce mainly for the market and an additional 5% sell on the market at list the 70% of the total production, is particularly significant.

Farms based on fresh meat and fresh milk production are more market oriented than in the case of crop production. Some of the reasons behind the development of this sector can be identify: a well developed milk processing industry, a well structured shredded milk collection network, the opportunity for a valuable monthly income for small farmers, low market costs and fixed investments.

Milk and meat processed products are predominantly produced for self consumption with the exception of Dobož and Trebinje area. This can be partially explained considering that both Dobož and Trebinje are characterized by a number of positive experiences related to farm markets, traditional cheese brands, direct farm sales, developed service capacities, tourism. However on farm meat processing remains rare also because of the relevance of live animal market within the Country.

Table 4.63. Production orientation: subsistence vs market

	Mainly for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Mainly for market	No production	Total response (valid)
Grain	103	19	16	12	11	41	202
Fruits	145	13	7	9	10	18	202
Vegetables	155	12	4	17	11	2	201
Milk (fresh)	51	17	29	28	47	30	202
Milk products	87	11	12	32	15	45	202
Meat (fresh)	31	24	19	71	52	5	202
Meat products	148	2	1	1	0	50	202
Honey	35	0	4	5	4	154	202

Source: author's survey

More than the 40% of products are marketed through farmer markets while only a 20% sell their products through a processing company or a distributor.

Table 4.64. Marketing and commercialization systems

		Frequency	Percent	Cumulative Percent
Valid	Through farmer markets	84	41,4	42,4

	Through farmer markets / to processing companies	29	14,3	57,1
	To processing companies	24	11,8	69,2
	Through a distributor	22	10,8	80,3
	Through the association/cooperative	11	5,4	85,9
	Through farmers market / distributor	11	5,4	91,4
	No product sold on the market	5	2,5	93,9
	Through farmers market / association	4	2,0	96,0
	7	4	2,0	98,0
	Through farmers market / distributor/ to processing companies	2	1,0	99,0
	To processing companies/ through middle man	2	1,0	100,0
	Total	198	97,5	
Missing	No response	4	2,0	
	System	1	,5	
	Total	5	2,5	
Total		203	100,0	

Source: author's survey

4.2.5.3.2 Access to credit

The credit system is not used by the majority of agricultural households (57.7%) however the most accessible institutions are Micro Credit Organization (MCOs) and NGOs while the presence of commercial banks is absolutely residual.

Table 4.65. Access to credit: credit facilities

		Frequency	Percent	Cumulative Percent
Valid	Do not use the credit system	116	57,1	57,4
	Bank	38	18,7	76,2
	Micro Credit Organization (MCO)	35	17,2	93,6
	Bank + MCO	6	3,0	96,5
	NGO	4	2,0	98,5
	MCO + NGO	2	1,0	99,5
	Bank + NGO	1	0,5	100,0
	Total	202	99,5	
Missing	System	1	0,5	
Total		203	100,0	

Source: author's survey

The major barriers to credit are the high interest rates required (MCOs and NGOs are more accessible since they offer better condition) and the request of significant collaterals that are considered as a major constraint in the 56% of the cases. However the overall perception of the farmers is connected with the complexity of the credit system and in many cases with a high perception of risk in running into debts.

Overall credit has been used mainly for purchase of equipment, for the construction and modernization of buildings and other facilities, and for solving financial problems. Only in few cases credit has been asked for diversified purposes.

Table 4.66. Access to credit: loan purpose

		Frequency	Percent	Cumulative Percent
Valid	Purchase of equipment (1)	25	29,7	29,7
	Construction-modernization of buildings/facilities (2)	22	26,1	55,7
	1 + 2	13	15,5	71,2
	Financial problems (3)	11	13,1	84,3
	1 + 3	5	7,0	91,3
	1 + 2 + 3	3	3,6	94,9
	Other (4)	3	3,6	98,5
	1 + 4	2	2,5	100
	Total	84	100	
Missing	No response	2	1,0	
	System Error	1	,5	
	Total	3	1,5	
Total		203	100,0	

Source: author's survey

A correlation between access to credit and access to subsidies have to be observed. Farmers who do not have access to subsidies usually do not have access either to credit or microcredit. Small size, age and low education level are among the main causes.

Table 4.67. Subsidies - Access to subsidies past few years * Technical and economic performances (Access to credit) - Credit facilities Crosstabulation

		Technical and economic performances (Access to credit) - Credit facilities							Total
		Bank	Micro Credit Organization (MCO)	NGO	Do not use the credit system	Bank + NGO	Bank + MCO	MCO + NGO	
Subsidies - Access to subsidies past few years	Yes	26	23	2	45	1	5	2	104
	No	12	12	2	70	0	1	0	97
Total		38	35	4	115	1	6	2	201

Source: author's survey

4.2.5.3.3 Subsidies

Overall more than 50% of the interviewed agricultural households have received subsidies, but relevant regional disparities have to be underlined. Subsidies have been received by the 65% of agricultural households in Dobož area and only by the 20% in Trebinje area. This diversity in subsidies distribution can be partially explained with the diversity of farm size within the regions: large farms in Banja Luka and Dobož receive the largest share of subsidies.

The subsidy system is considered extremely complicated by a large group of households who find the main element of complexity in the fact that in the last years the system has been deeply modified on a yearly basis.

Subsidies are extremely fragmented and fail to promote specialization or competitiveness. Considering that almost the 80% of subsidy recipients obtain less than 900 KM per year it is probably appropriate to recognize in agricultural subsidies more a social than a development purpose.

Table 4.68. Subsidies received in 2006 (KM)

Data in KM	Frequency	Percent	Cumulative Percent
No subsidies received	97	48.0	49.2
50-100	7	3.5	52.8
100-200	7	3.5	56.3
200-300	8	4.0	60.4
300-400	11	5.4	66.0
400-500	14	6.9	73.1
500-700	9	4.5	77.7
700-900	4	2.0	79.7
900-1500	8	4.0	83.8
1500-2000	13	6.4	90.4
>2000	19	9.4	100.0
Total	197	97.5	
No response	5	2.5	
Total respondent	202	100.0	

Source: author's survey

Subsidies have been received in a large majority for production and only a small share have been received for the purchasing of new equipment or the modernization of facilities.

Table 4.69. Subsidies by type (received in 2006)

	Purchasing of new equipment (1)	Modernization of facilities (2)	Purchasing of inputs -chemicals, fertilizers, seeds - (3)	Production (4)	1+4	2+4	2+3	No subsidies received	Total respondent
Total	4	4	3	73	16	2	1	99	202

Source: author's survey

A large majority of subsidies (70,5%) have been allocated exclusively to production, this is coherent with the agricultural policy instruments used in the 2000-2007 period basically aimed to the direct support of certain commodities (overall milk and tobacco). Apart for production there is a quite significant share of farmers (15,8%) who have received subsidies both for production and for the purchasement of new equipment. Other categories (modernization of new facilities, purchasement of inputs as chemicals and fertilizers) have been residual and did not have a significant impact at the farm level.

Table 4.70. Subsidies - Subsidies/aim (For what did you get subsidies)

		Frequency	Percent	Cumulative Percent
Valid	Production	72	70,7	70,5
	Purchasing new equipment + production	16	15,8	86,5
	Purchasing of new equipment	4	3,9	90,4
	Modernization of facilities	4	3,9	94,3
	Purchasing of inputs (chemicals, fertilizers, seeds)	3	2,9	97,2
	Modernization of facilities + production	2	1,9	99,1
	Purchasing of new equipment + purchasing of inputs	1	0,9	100
	Total	102	98,5	
Missing	No response	2	1,0	
	System	1	,5	
	Total	3	1,5	
Total		105	100,0	

Source: author's survey

The extreme fragmentation of subsidies should be a sufficient element to consider that public support is not having any influence on farmers choices. Over the 70% of the farmers who have received subventions in the past few years affirm to be not oriented by subsidies strategies while only a residual share (15%) affirm to make production choices in function of subsidies availability.

Table 4.71. Subsidies - Subsidies/production orientation (Do you chose your crops on the base of subsidies orientation)

		Frequency	Percent	Cumulative Percent
Valid	No, my choices are not oriented by subsidies	97	47,8	51,3
	No subsidies received	56	27,6	81,0
	Yes, I can say that my choices are mainly oriented by subsidies	20	9,9	91,5
	Yes, but only part of my choices are oriented by subsidies	16	7,9	100,0
	Total	186	93,1	
Missing	No response	13	6,4	
	System	1	,5	
	Total	14	6,9	
Total		203	100,0	

Overall the main criticism that farmers direct to the subsidy system is related to its extreme complexity due to the lack of stability (in the past decade an overall strategy have been not foreseen and instruments were changed on an annual basis) and the extremely bureaucratic (for farmer's average knowledge) procedures.

4.2.5.4. Sectorial organizations and farmers associations

Decline and transition of agricultural companies that functioned as organized units under the old system resulted in a drastic reduction of the agriculture's share of the total economy and the number of people employed in this sector is as low as to be insignificant. New cooperatives are not efficient and some are privatized for which reason they do not serve their true purpose, while significant agricultural capacities remain unused. The above is related to neglect of agricultural resources of the rural households. This situation get worst because of improper and poorly defined agrarian policy, fluctuation of prices and failure to secure organized market for surplus agricultural products contribute to decreasing interest of farmers for commercial agricultural production.

Today the majority of the agricultural households are not member either of a cooperative or of an association. The situation is largely common in transition countries, where agriculture cooperatives played a big role in former system. In RS more that 300 "old" cooperatives are still formally existing and most of the cases they are not functioning but they are still in control of valuable and large properties. This situation has a significant impact on the farmer's perception of the cooperative system. So mistrust is still a major constraint for the creation of associations and of a new model of cooperative.

The absence of associations and cooperatives can be considered a major obstacle for joint investment and marketing activities and so an unused opportunity to foster farm competitiveness.

Most of the agricultural households sell directly on farmer markets since these offer them the best price considering the small quantity of product they sell. Moreover the farmers that sell to the processing industry are generally from Banja Luka area where processing facilities are located. In some areas (Sokolac and Trebinje in particular) farmer markets represent the only possible connection with the market.

Table 4.73. Sectorial organizations and farmers associations

		Frequency	Percent	Cumulative Percent
Valid	None	138	68,0	73,4
	Member of association	27	13,3	87,8
	Member of cooperative	18	8,9	97,3

	Member of association and member of cooperative	5	2,5	100,0
	Total	188	92,6	
Missing	No response	14	6,9	
	System	1	,5	
	Total	15	7,4	
Total		203	100,0	

Source: author's survey

4.2.5.5 Demographic trends and family structure

Effects of war and changes in the economic system continue to support the lasting trend of migration of people from rural areas to economically more developed urban centers contributing to further erosion of rural households and their deteriorating age structure. Agricultural activities in the area are thus often limited and have mainly a subsistence or semi-subsistence character. The age structure reflect this considerations since families are characterized mostly by elders and not educated people so by people with less chances to find a better job in a more urbanized center or with a not so strong desire to move in search of a better life. Generally life and work in villages are made more difficult by the lack of adequated infrastructures and services.

Interviewed families are not extremely large since the 45% of them have between 3 and 4 members and the 78% less than 6 members.

4.2.5.6 Family income

Insufficient income from agriculture is result of low level of investment. Limited production contributes to high sale price by product unit for which reason local products cannot compete in the market with those imported from neighboring countries. Considering the farmers included in the survey a significant variety of situations has to be underlined: income range from less than 300 KM per month (16,4% of the total population) to more than 700KM (17,2% of the total population) and it is almost equally spread in all the categories in between.

Table 4.74. Total individual income (monthly)

		Frequency	Percent	Cumulative Percent
Valid	<300 KM	28	13,8	16,4
	301-350 KM	10	4,9	22,2
	351-400 KM	16	7,9	31,6
	401-450KM	18	8,9	42,1
	451-500 KM	24	11,8	56,1
	501-600KM	18	8,9	66,7
	601-700 KM	22	10,8	79,5
	>700 KM	35	17,2	100,0
Total		171	84,2	

Missing	No response	31	15,3	
	System	1	,5	
	Total	32	15,8	
Total		203	100,0	

Source: author's survey

Farmers and agricultural households farm mostly part time and beside agriculture they are permanently employed in the service or in the industry sector or they have a temporary position. This situation is confirmed also by the fact that agriculture does not generally represent the majority of the income, but only an “additional source” to a salary from another sector or another revenue (a pension). More than 50% of farmers gain less than the 60% of their income from farming activities and the 15%-20% can be considered as professional farmers since they gain the large majority of their income from agriculture.

Table 4.75. Income - Share of income coming from agricultural activities

		Frequency	Percent	Cumulative Percent
Valid	0%	4	2,0	2,4
	10%	9	4,4	7,6
	20%	19	9,4	18,8
	30%	16	7,9	28,2
	40%	11	5,4	34,7
	50%	22	10,8	47,6
	60%	9	4,4	52,9
	70%	20	9,9	64,7
	80%	21	10,3	77,1
	90%	9	4,4	82,4
	100%	30	14,8	100,0
		Total	170	83,7
Missing	No response	32	15,8	
	System	1	,5	
	Total	33	16,3	
Total		203	100,0	

Source: author's survey

Off farm work is shared among services (20%), agriculture through work in other farms or companies (19%) and industry (13%). A significant share (35%) is unemployed or have access only to short term casual jobs (5%). Additional revenues that are sometimes relevant come from pensions and emigrants remittances.

Table 4.76. Income - Share of income coming from OFF farm jobs

		Frequency	Percent	Cumulative Percent
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Valid	No	70	34,5	37,6
	Yes, in the service sector	41	20,2	59,7
	Yes, in the agricultural sector	39	19,2	80,6
	Yes, in the industry sector	27	13,3	95,2
	Casual temporary jobs	9	4,4	100,0
	Total	186	91,6	
Missing	No response	16	7,9	
	System	1	,5	
	Total	17	8,4	
Total		203	100,0	

Source: author's survey

5. Conclusions and results

5.1 Agricultural policy in RS

The subsidy system is characterized by a acute fragmentation in quality (47 different items have been financed in the 2000-2007 period) and in quantity terms (the survey has suggested that a large group of recipient gets a rather small share of subsidies per capita; several analyst agree that a significant share of subsidies is allocated to a negligible group of recipients). In this frame subsidies have a dual role: a short term – social character for a large group of beneficiaries; a long term – development character for a negligible group of beneficiaries. So except for the case of few recipients the subsidy system fail in the promotion of specialization, modernization and competitiveness.

To some extent it is possible to recognize a significant fracture between agricultural administration and farmers. A more exhaustive analysis on the effect of subsidies and on the characteristics (and needs) of the recipients should be made in order to target agricultural and rural development measures in a more effective way.

If competitiveness and modernization are among the main policy aims of the actual agricultural strategy some of the measures should probably be retargeted and should be accessible for a larger group of farmers. The new Strategy for Agricultural Development partially overcame this short term perspective and this irrational utilization of subsidies even if, especially in consideration of the mentioned fracture between agricultural administration and farmers, it will be relevant to see how the implementation phase will work. On the one hand the Strategy do not fail to consider the needs for competitiveness and modernization and takes into account the major issues related to European integration. But on the other hand there are no specific measure to support the transition of non-commercial holdings.

Non-commercial holdings support is included in the upcoming strategy for rural development that should account for the 20% of a particularly poor agricultural budget. Considering the large number of small holdings “to reach the farmers“ could a challenging task.

The unclear and short term agricultural strategy that characterized RS in the last decade contributed to create an uncertain environment where trust and reliability can be considered as major issues. On the other hand the lack of trust is also the major constraint that affects the development of associations and cooperatives.

Agricultural organization are necessary not only to promote the access to technological inputs, commercialization, marketing and competitiveness, but they are also necessary to create conditions for farmers to have more influence in the political arena and over agricultural legislation.

In an environment affected by a high degree of instability (changes in the political elite, changes in the agricultural administration, a weak legislative framework) short terms strategies are the most frequently adopted.

A rural development strategy could be crucial to encourage the vitality of rural areas. Competitiveness, modernization and European integration have to be milestones of the policy goals. However it is essential to define an appropriate and sustainable model of agriculture characterized by an autonomous process of modernization. In the conception of this model it should be essential to identify the farmers and their needs and to define the main characteristics of the agricultural and rural systems of RS.

Assessment of the state of agriculture in the project area shows that the priority should be given to achieving functional organization of farmers. If associations are to be founded, it is necessary to clearly define their goals and their role in solving the primary problems of agricultural production on small farms. The number of commercial agricultural producers is usually small and they are not informed about situation in the market and have weak competitive potential. As an example, organization might include encouraging cooperation on specific production lines in order to create larger economic units with better access to markets.

Since the experience has shown that associations of general type usually do not succeed in solving the problems of commercial agricultural production, association by specific production lines is likely to be more efficient (e.g. raspberry farmers, milk or meat producers etc.). Specialized associations gather farmers involved in specific production who are guided by common interest and focused on common goals.

Establishment of new and reorganization of existing cooperatives is expected in areas where farmers' associations – as a weaker form of farmers' organization - function better. Cooperatives as commercial business societies gather producers of specific goods to enable them easier access to markets due to greater quantities of products of a more balanced quality. Agreed production is precondition for profitability because it enables farmers to assess the costs and achieve profits based on guaranteed product placement.

5.2 Farmers

Fragmentation of farms, limited production areas and insecure markets force rural households to resort to diversified production of low volume.

Farmers have no influence over legislation and regulation for agriculture in the sense of adopting new simulative measures contributing to higher living standard of rural population and stopping rural migration.

Organized production, standardization and protection of geographic origin are the basic precondition for access of these goods to foreign markets on which it is possible to achieve greater sales and higher prices.

Improving professional knowledge of farmers is important for shift away from the traditional extensive farming. Organized expert lectures, distribution of professional materials, demo presentations and practical exhibition of production technologies will serve as evidence to farmers that they are not left on their own, which is particularly important for young people who have not yet abandoned villages. Above activities should be a task for state and municipal expert services which themselves need more support, training and enlargement.

Although fruit production does not play a significant role in the project area, new local raspberry, blackberry and strawberry plantations and young orchards deserve attention. Such production should be supported and extended in an organized fashion.

Organization of agricultural and livestock fairs and exhibitions is significant for encouragement and motivation of farmers through awarding and other forms of recognition of their work.

To increase investment into rural road networks.

To increase farmers' access to favorable loans, with longer repayment and grace periods and lower interest rates.

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7. APPENDIX

7.1 Questionnaire: The Agricultural Network in Republika Srpska (English Version)

Questionnaire presentation

The present questionnaire is part of a research carried out in the frame of a PhD thesis performed at the University of Bologna (PhD Programme in *International Cooperation and Sustainable Development Policies*).

This questionnaire is the first of two (the second will be more refined) and it is requested for expert opinion on the identification of the existing network among the actors of the agricultural sector in Republika Srpska. In this round, the aim is to identify a list of actors.

The returns from this round will be coded, analyzed and used to construct the second (and final) round of the questionnaire.

Some additional information before to start:

(1) What is intended as organization?

1. Ministries and executive agencies (e.g. extension organizations....);
2. Public bodies (universities....);
3. Users organization (e.g. farmers union....);
4. Private sector organizations;
5. Financial institutions;
6. National and International NGOs;
7. Bilateral projects;
8. International organizations;
9. International research organizations;
10. Other...

(2) Please list the name of the main organization indicating their name (e.g. Green Agriculture) and their nature (e.g. International NGO).

Please if it is possible return this questionnaire by email to Matteo Vittuari (matteo.vittuari@unibo.it) by **December 21st**.

7.2 Questionnaire: The Agricultural Network in Republika Srpska (Bosnian/Croatian/Serbian Version)

Upitnik presentacia

Ovaj upitnik je dio istraživačkog projekta implementiranog od strane Odjeljenja za agroekonomiju i inženjering Univeziteta u Bolonji u okviru doktorskih studija o internacionalnoj saradnji i samoodrživim razvojnim politikama.

Ovaj upitnik je prvi od ukupno dva i ima za cilj da se identifikuju orgaizacije koje imaju značajnu ulogu u poljoprivredi Republike Srpske.

U ovom krugu, cilj je identifikovati listu organizacija. Dobijene povratne informacije od Vas u ovom dijelu istraživanja će se koristiti prilikom kreiranja drugog (završnog) upitnika.

Dodatne informacije:

(1) Šta podrazumjevamo pod organizacijom?

1. Korisničke organizacije (npr. udruženja farmera)
2. Nacionalne i internacionalne nevladine organizacije;
3. Javni (državni) sektor (ministarstva, instituti, zavodi, savjetodavna služba, fakulteti)
4. Privatni sektor;
5. Finansijske institucije (banke, mikrokreditne organizacije)
6. Bilateralni projekti;
7. Internacionalne organizacije i donatori;
8. Internacionalne istraživačke institucije;
9. Drugi

(2) Molimo Vas navedete ime (npr. Green Agriculture) i vrstu organizacije (npr.internationalna NGO).

Najsrdahnije Vas molimo da odgovorite na ovaj upitnik do 17. decembra 2007. i prosljedite ga na e-mail adresu matteo.vittuari@unibo.it.

<p>4: Navedite imena organizacija sa kojima Vaša organizacija saraduje ? (nacionalne i internacionalne organizacije)</p>	<p><i>Molimo Vas da navedete organizaciju (2) i ukoliko je moguće kontakt osobu i njen/njegov email. Navedena osoba će biti kontaktirana tokom drugog kruga ovog upitnika:</i></p>	
	<p><i>Ime organizacije:</i></p>	<p><i>Kontakt osoba (Ime; Prezime; email adresa)</i></p>
	<p><i>Npr. Ministarstvo poljoprivrede, šumarstva i vodoprivrede</i></p>	<p><i>Marko Manin; marko.manin@email.org</i></p>
	<p><i>Npr. Green Agriculture (Internacionalna NGO)</i></p>	<p><i>Steve Green; sgreen@email.org</i></p>
	<p><i>Npr. Poljoprivredni fakultet, Banja Luka</i></p>	<p><i>Igor Malić; imalic@email.org</i></p>

Najsrdahnije Vas molimo da odgovorite na ovaj upitnik do 17. decembra 2007. i prosljedite ga na e-mail adresu matteo.vittuari@unibo.it.

Za sve informacije vezane za ovaj upitnik molimo Vas da kontaktirate:

Matteo Vittuari

Dipartimento di Economia e Ingegneria Agrarie, Alma Mater Studiorum - Università di Bologna,

Via Fanin 50, 40127 Bologna

Tel: 0039-051-2096161; **Do 20. decembra molimo Vas da koristite sl. broj: +38766251104** (Bosnia Herzegovina)

Fax: 0039-051-2096162;

Email: matteo.vittuari@unibo.it

7.3 Questionnaire for farmers (English Version)

The following questionnaire will be aimed to complete a survey about the characteristics of farms and farming systems in the different regions of Republika Srpska. The gathered information will be used in order to draw attention to sounds policies and subsidies mechanism which could be effective to support agricultural activities with a particular attention to different mechanisms and different solutions that should be used in regions with different characteristics.

SECTION 1 Farm structure: this information will be collected to illustrate the basic characteristics of farming systems in Republika Srpska and to analyze the main differences on a regional basis.

1. Farm structure							
1.1. Land							
1.1.1. Land area	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
1.1.2. Ownership	Land of property registered		Land of property (but not in possession of legal documents)		Rented land without contract		
	Land of property with ongoing registration process		Rented land with contract		Family association (Land of property registered and rented land with contract)		
1.1.3 Location	Flat area		Hilly area		Mountain area		

1.2. Buildings					
1.2.1. Animal recovery facilities (<i>you can mark more than one option</i>)	None	Piggery	Cattleshed	Hen-house	Sheepfold
1.2.2. Storage facility	None	Mais storage	Objekast za sjeno	Objekast za skladistenje zitarica	Objekast za silazu
1.2.3. Other	Plastenik			“Summer House”	

1.3. Tools and machinery (equipment)				
1.3.1. Tractor	Yes, of property	Yes, rented	Yes, from association/cooperative	No
1.3.2. Kombajn za kukuruz	Yes, of property	Yes, rented	Yes, from association/cooperative	No
1.3.3. Kombajn za žito	Yes, of property	Yes, rented	Yes, from association/cooperative	No
1.3.4. Others	Sistem za navodnjavanje	Muzilice	Kosačice	Sušare

SECTION 2 Production patterns: this information will be collected in order to analyse the production patterns and to examine the main production on a regional basis. Information on the area seeded and on yields are basic element to understand farmers choices.

2. Production patterns	
2.1 Crop patterns	

Sheep	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26
Goat	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26
Poultry	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26
Horses	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26

SECTION 3 Technical and economic performances: all the information related to this section (market orientation; marketing systems; access to credit; subsidies) are aimed to understand which are the main drivers of farmers choices.

3. Technical and economic performances					
3.1. Products for market or family consumption (crop)	Family consumption  Market				
Grain	Predominately for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Predominately for market
Fruit	Predominately for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Predominately for market
Vegetables	Predominately for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Predominately for market

3.2. Fresh and processed products					
<u>3.2.1 Fresh</u>					
Milk	Predominately for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Predominately for market
Pig meat	Predominately for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Predominately for market
<u>3.2.2 Processed</u>					
Diary	Predominately for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Predominately for market
Pig products (ham, sausages)	Predominately for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Predominately for market
Honey	Predominately for family consumption	Up to 70% for family consumption and 30% for market	50% for family consumption and 50% for market	Up to 70% for market and 30% for family consumption	Predominately for market

3.3. Marketing systems				
How do you sell your products (<i>you can mark more than one option</i>)	Through farmers market	To processing companies	Through a distributor / "middle man"	Through the association/cooperative

3.4. Access to credit					
Do you use credit facilities ?	Yes, through a Bank	Yes, through a MCO	Yes, through an NGO		No
For which purpose do you ask for a loan? (<i>Please consider this question only if you have answered yes to the previous question</i>)	Financial problems	Purchase of machinery	Construction-modernization of buildings/facilities		Other
Which are the main problem of the credit system (<i>you can mark more than one option</i>)	High interest rate requested by the Bank/MCO	High guarantees requested by the Bank/MCO	Other requirement requested by the Bank/MCO	Lack of information	Complexity
Would you be interest to use credit opportunities if access condition would be more favourable ?	Yes	No		No, I would be not interested anyway	

3.5. Subsidies	
Do you had access to subsidies in the previous years ?	Yes No

How much subsidies did you get last year ?	range	range	range	range	range	range	range	range	range	range
How much subsidies do you expect to get next year ?	range	range	range	range	range	range	range	range	range	range
For what did you get subsidies?	Purchasing of new equipment		Modernization of facilities		Purchasing of seeds			Production		
Do you chose your crops on the base of subsidies orientation?	Yes, I can say that my choices are mainly oriented by subsidies				Yes, but only part of my choices are oriented by subsidies			No, my choices are not oriented by subsidies		
Do you believe to have complete information about the subsidies system?	Yes				No, generally the procedure is to complex			No, because the mechanism change completely year by year and this create confusion		

SECTION 5 Family structure: the information requested are aimed to analyse the characteristics of the families with particular reference to work organization and education.

5. Family structure							
Your sex	Male				Female		
Your age	20 - 30	31 - 35	36 - 40	41 - 45	46 - 50	51 - 55	56 - 60 > 60
Membership	Member of association		Member of cooperative		None		
5.1 Family composition (households number)	2	3	4	5	6	7	
5.1.1 Number of female in the family (household)	0	1	2	3	4	5	
5.2.2 Number of male in the family (household)	0	1	2	3	4	5	
5.2 Level of education							
5.2.1 Head of household	Primary school		Secondary School		High School		University
5.2.2 Household 2	Primary school		Secondary School		High School		University
5.2.3 Household 3	Primary school		Secondary School		High School		University
5.2.4 Household 4	Primary school		Secondary School		High School		University
5.2.5 Household 5	Primary school		Secondary School		High School		University
5.3 Family member involved in farm activities	0	1	2	3	4	5	
5.4 Non family members involved in farm activities	0	1	2	3	4	5	
5.5 Son/daughter involved in farm activities	0	1	2	3	4	5	
5.5 Son/daughter who moved to urban areas	0	1	2	3	4	5	

SECTION 6 Structure of the family income: this information are requested in order to understand the impact of agricultural income and “off farm income (income from activities non connected with the farming activities in the farm of property)” on the family overall income.

4. Structure of the family income											
6.1 Income (individual, monthly)	<300K M	301- 350KM	351- 400KM	401- 450KM	451- 500KM	501- 600KM	601- 700KM	>701K M			
6.2 Share of the income coming from agricultural activities	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
6.3 Off farm jobs	Yes, in the agricultural sector		Yes, in the industry sector		Yes, in the service sector		Casual temporary jobs			No	
6.4 Other revenues	Pension					Remittance					

SECTION 7

Comments and additional considerations:

7.4 Questionnaire for farmers - upitnik (Bosnian/Croatian/Serbian Version)

Ovaj upitnik je osmišljen s ciljem da upotpuni istraživanje o karakteristikama farmi i vrstama proizvodnji na farmi u različitim regionima Republike Srpske. Sakupljene informacije će biti iskorištene u cilju skretanja pažnje na mehanizme podsticaja koji mogu biti efektivna podrška poljoprivrednih proizvodnji sa naročitim akcentom na različite mehanizme i rješenja koja mogu biti korištena u regionima sa različitim karakteristikama.

1. DIO

Struktura farme: ove informacije su potrebne da bi se utvrdila struktura farmi u Republici Srpskoj u cilju analize glavnih razlika na regionalnom nivou.

1. Struktura farme							
1.4. Zemljište							
1.4.1. Povšina pod poljoprivrednim zemljištem	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
1.4.2. Vlasništvo nad poljoprivrednim zemljištem	Registrovano vlasništvo nad zemljom		Vlasništvo nad zemljom pravno ne ovjereno		Zemlja uzeta pod zakup ali bez sklopljenog ugovora		
	Vlasništvo nad zemljom u procesu registracije		Zemlja uzeta pod zakup pod ugovorom		Registrovana zemlja u vlasništvu, kao i zemlja uzeta u zakup pod ugovorom		
1.1.3 Lokacija	Ravničarsko područje		Brdsko-planinsko područje		Planinsko područje		

1.5. Objekti					
1.5.1. Objekti za smještaj životinja (možete označiti više od jedne opcije)	Nemam	Svinjac	Štala	Kokošinjac	
1.5.2. Objekti za skladištenje stočne hrane (možete označiti više od jedne opcije) (you can mark more than one option)	Nemam	Košana ili kukuruzana	Objekat za sijeno	Objekat za skladištenje žitarica	Objekat za silažu
1.5.3. Drugo (možete označiti više od jedne opcije)	Ljetna kuhinja “dvorišna zgrada”		Objekat za smještaj polj. mehanizacije		Plastenik

1.6. Poljoprivredne mašine i alati				
1.6.1. Traktor	Da, u svom vlasništvu	Da, iznajmljujem	Da, od udruženja/zadruga	Ne
1.6.2. Kombajn za kukuruz	Da, u svom vlasništvu	Da, iznajmljujem	Da, od udruženja/zadruga	Ne
1.6.3. Kombajn za žito	Da, u svom vlasništvu	Da, iznajmljujem	Da, od udruženja/zadruga	Ne
1.6.4. Drugo	Sistem za navodnjavanje	Muzilice	Kosačice	Sušare

2. DIO

Vrste proizvodnji: ove informacije su potrebne u cilju analize vrsta proizvodnji kao i utvrđivanja glavnih proizvodnji na regionalnom nivou. Informacije koje su vezane za sjetvu i prinos su osnovni elemenat za razumjevanja izbora poljoprivrednog proizvođača.

	2. Vrste proizvodnji							
2.1 Biljna proizvodnja								
Pšenica	Zasijana površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Kukuruz	Zasijana površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Soja	Zasijana površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Suncokret	Zasijana površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Duvan	Zasijana površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Krompir	Zasijana površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Kupus	Zasađena površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Paradajz	Zasađena površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Stočna hrana	Zasijana površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							
Šljiva	Zasađena površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Broj stabala	0 - 15	16 - 30	31 - 45	46 - 60	61 - 70	71 - 90	> 90
Jabuka	Zasađena površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Broj stabala	0 - 15	16 - 30	31 - 45	46 - 60	61 - 70	71 - 90	> 90
Kruška	Zasađena površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Broj stabala	0 - 15	16 - 30	31 - 45	46 - 60	61 - 70	71 - 90	> 90

Malina	Zasađena površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Broj stabala	0 - 15	16 - 30	31 - 45	46 - 60	61 - 70	71 - 90	> 90
Jednogodišnje ljekovito bilje	Zasijana površina u 2006.	0 – 0.5 ha	0.6 – 1 ha	1 – 5 ha	5 – 20 ha	20 – 50 ha	50 – 100 ha	> 100 ha
	Prinos							

2.2 Stočarska proizvodnja	Broj													
	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26
Goveda	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26
Svinje	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26
Ovce	10	20	30	40	50	60	70	80	90	100	100-125	125-150	150-200	>200
Koze	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26
Živina	10	20	30	40	50	60	70	80	90	100	100-125	125-150	150-200	>200
Konji	1	2	3	4	5	6	7	8	9	10	11-15	16-20	21-25	>26

3. DIO

Tehničke i ekonomske performanse: sve informacije vezane za ovu sekciju (tržišna orijentacija; način prodaje proizvoda; pristupačnost kredita; podsticaji) imaju cilj da se vidi koji su glavni uzroci izbora poljoprivrednih proizvođača.

3. Tehničke i ekonomske performanse					
3.1. Proizvodi za tržište ili vlastitu potrošnju (usjevi)	Vlastita potrošnja			Tržište →	
	Žitarice	Uglavnom za porodične potrebe	70% za porodične potrebe, a 30 % za prodaju	50% za porodične potrebe, a 50 % za prodaju	30% za porodične potrebe, a 70 % za prodaju
Voće	Uglavnom za porodične potrebe	70% za porodične potrebe, a 30 % za prodaju	50% za porodične potrebe, a 50 % za prodaju	30% za porodične potrebe, a 70 % za prodaju	Uglavnom za prodaju
Povrće	Uglavnom za porodične potrebe	70% za porodične potrebe, a 30 % za prodaju	50% za porodične potrebe, a 50 % za prodaju	30% za porodične potrebe, a 70 % za prodaju	Uglavnom za prodaju
3.2. Svježi i prerađeni proizvodi					
<u>3.2.1 Svježi proizvodi</u>					
Mlijeko	Uglavnom za porodične potrebe	70% za porodične potrebe, a 30 % za prodaju	50% za porodične potrebe, a 50 % za prodaju	30% za porodične potrebe, a 70 % za prodaju	Uglavnom za prodaju
Svježe meso (svinjsko, teleće, ovčije i	Uglavnom za porodične	70% za porodične	50% za porodične	30% za porodične	Uglavnom za prodaju

dr.)	potrebe	potrebe, a 30 % za prodaju	potrebe, a 50 % za prodaju	potrebe, a 70 % za prodaju	
3.2.2 Prerađeni proizvodi					
Mliječni proizvodi (kajmak,sir)	Uglavnom za porodične potrebe	70% za porodične potrebe, a 30 % za prodaju	50% za porodične potrebe, a 50 % za prodaju	30% za porodične potrebe, a 70 % za prodaju	Uglavnom za prodaju
Pršut, kobasice i dr.	Uglavnom za porodične potrebe	70% za porodične potrebe, a 30 % za prodaju	50% za porodične potrebe, a 50 % za prodaju	30% za porodične potrebe, a 70 % za prodaju	Uglavnom za prodaju
Med	Uglavnom za porodične potrebe	70% za porodične potrebe, a 30 % za prodaju	50% za porodične potrebe, a 50 % za prodaju	30% za porodične potrebe, a 70 % za prodaju	Uglavnom za prodaju

3.3. Načini prodaje				
Kako prodajete svoje proizvode (možete označiti više od jedne opcije)	Direktno na pijaci	Direktno prerađivačkoj industriji	Preko distributera ili posrednika	Preko udruženja/zadruge

3.4. Pristupnost kredita					
Da li koristite kreditna sredstva?	Da, preko banke	Da, preko mikrokreditne organizacije	Da, kroz nevladine organizacije (udruženja)		Ne
Za koju svrhu ste koristili kredit (molimo Vas, da odgovorite na ovo pitanje samo ako ste odgovorili sa DA na predhodno)	Finansijski problemi	Kupovinu polj. mahanizacije	Izgradnju, odnosno opravku objekata na farmi		Drugo
Koji su po Vašem mišljenju osnovni problemi prilikom uzimanja kredita? (možete označiti više od jedne opcije)	Visoke kamate zahtijevane od strane banaka ili mikrokreditnih organizacija	Visoke garancije tražene od strane banaka ili mikrokreditnih organizacije	Drugi uslovi zahtijevani od strane banaka ili mikrokreditnih organizacija	Nedostatak informacija	8 Složenost
Da li bi bili zainteresovani da koristite mogućnosti kreditiranja kad bi uslovi bili povoljniji?	Da	Ne		Ne ,u svakom slučaju nisam zainteresovan/a	

3.5. Subvencije										
Da li ste bili korisnici podsticaja/regresa u predhodnim godinama?	Da						Ne			
Koliki iznos ste dobili predhodne godine? (KM)	50-100	100- 200	200- 300	300- 400	400- 500	500- 700	700- 900	900- 1500	1500- 2000	≥2000
Koliki iznos očekujete u ovoj godini?	50-100	100- 200	200- 300	300- 400	400- 500	500- 700	700- 900	900- 1500	1500- 2000	≥2000
Za koju vrstu proizvodnje ste	Kupovinu poljoprivrednih		Popravku/izgradnju objekata		Kupovinu inputa			Proizvodnju		

dobili podsticaj/regres?	mašina		
Da li birate proizvodnju u odnosu na podsticaje/regrese?	Da, izbor moje proizvodnje je uglavnom orijentisan na proizvodnje koje se podstiču/regresiraju	Da, dio moje proizvodnje je orijentisan na proizvodnje koje se podstiču/regresiraju	Ne, moj izbor proizvodnje je nezavistan od proizvodnje koje se podstiču/regresiraju
Da li vjerujete da imate pravovremene informacije o sistemu podsticaja/regresiranja? (možete označiti više od jedne opcije)	Da	Ne, generalno procedura je isuviše komplikovana	Ne, proizvodnje koje se podstiču se iz godine u godinu mijenjaju

4.DIO

Struktura porodice: Ova informacija je potrebna u cilju analize članova porodice sa posebnim osvrtom na radno sposobno stanovništvo i njihov stepen edukacije.

4. Struktura porodice								
Pol	Muški				Ženski			
Godine	20 - 30	31 - 35	36 - 40	41 - 45	46 - 50	51 - 55	56 - 60	> 60
Članstvo	Član udruženja			Član zadruge		Nemam		
4.1 Sastav porodice (Broj članova)	2	3	4	5	6	7		
5.1.1 Broj ženskih članova domaćinstva	0	1	2	3	4	5		
5.2.2 Broj muških članova domaćinstva	0	1	2	3	4	5		
4.2 Nivo obrazovanja								
4.2.1 Član 1	Osnovna škola		Srednja škola		Viša škola		Visoka škola	
4.2.2 Član 2	Osnovna škola		Srednja škola		Viša škola		Visoka škola	
4.2.3 Član 3	Osnovna škola		Srednja škola		Viša škola		Visoka škola	
4.2.4 Član 4	Osnovna škola		Srednja škola		Viša škola		Visoka škola	
4.2.5 Član 5	Osnovna škola		Srednja škola		Viša škola		Visoka škola	
4.3 Članovi uključeni u aktivnosti na farmi	0	1	2	3	4	5		
4.4 Članovi koji nisu uključeni u aktivnosti na farmi	0	1	2	3	4	5		
4.5 Sin/Kćerka koji su uključeni u aktivnosti na farmi	0	1	2	3	4	5		
4.5 Sin/kćerka koji su se preselili u grad	0	1	2	3	4	5		

5. DIO

Struktura porodičnog prihoda: ova informacija se traži da bi smo utvrdili koliki prihod jedno domaćinstvo ostvaruje od poljoprivrednih aktivnosti, a koliki dio prihoda ostvaruje od nepoljoprivrednih aktivnosti u cjelokupnom porodičnom budžetu.

5. Struktura porodičnih prihoda											
5.1 Individualni prihod (mjesečni)	<300K M	301-350KM	351-400KM	401-450KM	451-500KM	501-600KM	601-700KM	>701K M			
5.2 Procenat prihoda ostvarenog poljoprivrednom proizvodnjom	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

5.3 Poslovi izvan farme	Da, u poljoprivredi	Da, u idustriji	Da, u uslužnim djelatnostima	Uobičajni privremeni poslovi	Ne
5.4 Prihodi iz drugih izvora	Penzija		Izdržavanje		