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**SUSTAINABLE AND ORGANIC FARMING IN THE  
UNIADRION COUNTRIES**

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**IKI**



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## 1. INTRODUCTION

Aim of this paper is to show how sustainability, and related policies, may have a positive impact in the dynamic of stabilization of the Adriatic-Ionic Initiative Countries (AIICs)<sup>1</sup>. The basic assumption is as follow: the implementation of any sustainable development policies need a continuing process of in-country, country-by-country and region-by-region dialogue. Expanding linkages – among countries, regions and of course economic sectors – form an important part of the story started at the Rio Earth Summit in 1992, when actually sustainability has emerged as an overarching policy goal and the international community adopted Agenda 21, an unprecedented global plan of action for sustainable development (ten years later, the 2002 World Summit on Sustainable Development, that will be held from 26 August to 4 September in Johannesburg, South Africa, presents an opportunity for today's leaders to adopt concrete steps and identify quantifiable targets for better implementing Agenda 21<sup>2</sup>).

Concrete national goals of economic well-being, social development and environmental sustainability – these are the widely accepted three dimensions of sustainability – should be coordinated across sectors, countries and regions. This dialogue (but one could also read cooperation) should help to identify specific measures to attain those goals and ways. While recognizing that each country must set its own goals and that successful development strategies must be based on local ownership and local capacity, the offering of a global framework for dialogue-cooperation seems to be a very important exercise.

This contribution will give some insights within this global framework referring, in particular, to the South East European Region and to the main issues related to sustainability, environmental protection and agricultural development, including the option of organic farming as an example of technological choice in an (important) economic activity.

Two specific projects elaborated and financed in the framework of UniAdrion<sup>3</sup> can be considered as a practical example of implementation of this approach in a concrete context of regional and international cooperation<sup>4</sup>.

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The Adriatic-Ionian Initiative was launched in Ancona (May 2000) by the Ministries of Foreign Affairs of seven countries of the area, namely: Slovenia, Croatia, FR Yugoslavia, Bosnia-Herzegovina, Albania, Greece and Italy, thus covering an important part of South-Eastern Europe.

<sup>2</sup> The 2002 World Summit will bring together tens of thousands of participants, including heads of State and Government, national delegates and leaders from non-governmental organizations (NGOs), businesses and other major groups to focus the world's attention and direct action toward meeting difficult challenges, including improving people's lives and conserving our natural resources in a world that is growing in population, with ever-increasing demands for food, water, shelter, sanitation, energy, health services and economic security.

<sup>3</sup> As a follow up of the AII the Ravenna Conference (*Culture as a bridge*, December, 2000) launched a Virtual University for the entire Adriatic-Ionian Basin. The *UniAdrion Charter*, signed in Ravenna on January 31, 2001, involves seven countries: Slovenia, Croatia, FR Yugoslavia, Bosnia-Herzegovina, Albania, Greece and Italy, thus covering an important part of South-Eastern Europe, and 21 Universities.

<sup>4</sup> The whole region can derive great benefits from the promotion of cultural heritage and sustainable development, protection of environment, increase of cultural tourism, improvement of communication and commercial networks and these benefits will concern security and development. By focusing on these themes, single universities can convey great contributes and, by sharing the innovative initiative of a Virtual University, realize many different educational programs as well as researches and joint initiatives whose interdisciplinary and multilaterally aspects will enforce common European roots. Financed by the Italian Ministries of Foreign Affairs and of Education for the next three years, the first Graduate Summer School on International Cooperation and Sustainable Development of Agricultural, Environmental and Rural Systems stems from the UniAdrion Working Group on "Environment and Sustainable Development". More details of the projects mentioned may be found here: <http://www.uniadrion.unibo.it/>.

## 2. BACKGROUND ON SUSTAINABLE DEVELOPMENT

As known all societies aspire to achieve economic development to secure rising standards of living and most of them, after achieving an acceptable level of welfare, aim to protect and enhance their environment. Unfortunately, many forms of economic development impose demands upon the environment: they use natural resources which are sometimes in limited supply and generate by-products of pollution and waste. The seemingly conflicting goals of economic development and environmental protection have generated a tremendous amount of literature and while a comprehensive framework for joint consideration and trade-off remains to be attained, policy-makers now make use of “good practice” guidelines based on the concept of “sustainability” or “sustainable development”.

The term sustainable development has been coined to describe the appropriate means of integrating economic development with the environment in view of the detrimental effects upon the physical condition of the natural environment associated to economic growth. Leaving aside initial attempts to integrate environmental issues in social and economic strategic evaluation, the Brundtland Report (World Commission on Environment and Development, 1987) bluntly rejected the argument that economic growth and environmental quality were mutually exclusive and the received wisdom that economic growth could only be achieved through a trade-off with the environment in terms of resource exploitation and quality.

The idea is that sustainable development is an approach to development that involves maximizing the net benefits of economic development subject to maintaining the services and quality of natural resources over time. Thus, incorporating sustainable development in decision-taking requires a fundamental shift in our understanding of the processes associated with economic development and progress.

Sustainability goes beyond a mere integration of environmental goals into social and economic evaluation, as it incorporates a time dimension associated to limits to the availability of certain natural resources and threshold levels in environmental quality, which cannot be surpassed. Sustainable development also encompasses a simple notion of attempting to express and secure equity between people, but involves a complicated balance of economic imperatives and environmental capabilities.

Finally, sustainability assessment for a given spatial area requires to incorporate action from all actors in all sectors whose responsibility converge upon that particular area. In practice, an outright consideration of the sustainability of a policy or strategy would mean the redesign of each and every of the phases of a classical planning process, from goal formulation, to generation of alternatives, evaluation and integration of the general public into the process.

As it is obvious, the concept of sustainability implies not only the preservation of the quality and balance of the environmental resources affected by the proposed strategy but, what is equally important, a redefinition of criteria and evaluation tools of costs and benefits at short, medium and long range as to reflect through them the actual effects on the socio-economic environment, the relative importance between consumption and preservation and a equitable distribution of resources among regions, nations, and the world as a whole. In brief, the assessment of sustainability requires a much broader approach in time, space and social groups affected by a proposal<sup>5</sup>.

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<sup>5</sup> For instance the United Nation Environmental Programme (UNEP), in partnership with various industry [organisations](#) (from accounting to water management), has launched a reporting initiative to gauge progress by the private sector towards sustainable development. This effort should contribute to the wider review of progress with the implementation of Agenda 21, under the framework of the 2002 [World Summit on Sustainable Development](#). Specifically, UNEP is facilitating the production of 22 sectoral reports, each addressing the following issues: economic, environmental and social profile; strategies, approaches and measures for progress; future challenges and targets. Ultimately, this effort should result in an unprecedented industry-driven initiative to outline the way ahead towards sustainable entrepreneurship. Such an undertaking will set the basis for developing sectoral agendas against which to track progress in the years to come- to the benefit of all stakeholders (more details in UNEP, 2002 and in <http://www.unep.org/outreach/wssd/sectors/sectors.htm>).

### 3. OBSTACLES OF SUSTAINABLE DEVELOPMENT POLICIES ACROSS SECTORS

The general framework outlined above, and the possibility to use concretely this approach, may differ very much according to the area under investigation.

The institutional structure of many AICs still has a legacy of the past as it is structured around a very sectoral view of the world<sup>6</sup>. Sustainability, on the other hand, requires co-ordinated initiatives across sectors. An option therefore could be to strengthen the ability to give institutions a functional review, to allow for re-scoping or re-profiling of existing institutions.

For instance, some of the issues considered to be “environmental” in the European Union (EU) are within the responsibilities of other ministries, such as chemicals, genetically modified organisms, radiation protection or drinking water. In this respect there is a need to strengthen the administrative structure necessary for environmental management, although this general weakness varies in level from country to country.

Another primary issue that characterizes the area under investigation is the need for a strong focus on development of the civil society. By this term is meant both formal and informal structures which allows for the broad participation in the decision making process. Sustainability cannot be a top-down issue, wherefore the development of structures, to facilitate bottom-up actions, are essential.

An important aspect of sustainable development is thus the improvement of all capital elements in the process (economic, environmental and social). The part that is at present missing in the AICs is the social capital element, wherefore this should be a point of focus for new policies. This could be overcome by means of supporting the creation of civil society and increasing the role of democracy in decision-making process concerning the policies of sustainable development. This is strongly linked to the aspect of institution building. However, it is not limited to this, as civil society encompasses organizations on all levels, public as well as private.

In a sectoral perspective on sustainability, policies are needed in each sector, which takes into account, which inter-linkages there are to other sectors. There is, in other words, a need for policy integration between sectors to ensure for instance that the transport policy does not harm the environment and vice versa<sup>7</sup>.

A recent report prepared by the EC Joint Research Center identified the following challenges to the achievement of sustainable development<sup>8</sup>:

- the low income of the population will reduce the priority of sustainability criteria in comparison with the day-by-day needs.
- The misunderstanding of principles and significance of sustainable development restrict implementation of policy for sustainable development in high executive levels.
- The low environmental understanding/culture of management and population may be serious barrier to reach sustainability in development.
- The low social involvement will impede implementation of sustainable policies.

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<sup>6</sup> An example of this profile emerged in the report prepared by the UniAdriion Working Group on “Environment and Sustainable Development” (<http://www.uniadriion.unibo.it/>).

<sup>7</sup> Various instruments to implement policies of sustainable development are: voluntary agreements by the firms, demand side management, incentive mechanisms (economic instruments), upstream planning, application of precautionary principle in innovation activity, public sustainable behavior.

<sup>8</sup> Although this report actually refers to the 10 accession countries, most of the obstacles to the implementation of sustainable development policies may be extended to other post-communist countries.

- The low confidence in institutions may make the policies of sustainable development as populist slogan misused for narrow political aims.
- The lack of structures, which can be used in the mediation between interest groups and decision-makers.

Given the scale of transformation presently going on in the countries of the area under investigation there is a urgent need to ensure popular support for reforms which may only benefit the public in the long run.

Raising awareness is crucial. In many countries there is still a general lack of trust in institutions, wherefore trust in and awareness of the resources of well working institutions must be build.

If this is the picture within the countries, it is clear that an equal importance should be given to the relationships outside, namely to the regional and international programs related to sustainable development.

#### **4. SUSTAINABILITY AND STABILITY: INTERNATIONAL AND REGIONAL COOPERATION IN SOUTH EASTERN EUROPE**

During the past decade of war, instability and slow post-communist reform in the Balkans, both the societies and the environment of the region have suffered greatly. The ultimate effort in the Countries of South Eastern Europe (SEECs)<sup>9</sup> is thus to combine sustainability with stability.

At this crucial time, when reconstruction efforts are beginning rapidly in SEECs, it is essential to undertake a cooperative regional approach to ensure that reconstruction activities are carried out in the most efficient and effective manner possible and to encourage that all of the countries in the region develop simultaneously and are equally prepared to enter into wider international processes in the future, including movement toward full integration into EU structures. Coordination of such cooperative activity is actually at the heart of the Stability Pact for South Eastern Europe.

Among the issues that are of particular importance to the lives and well-being of the people of the region today, is that of environmental management and protection. This issue is also relevant for the SEE country governments in terms of institutional capacity building and assimilation to the standards of the EU.

Notably, environment can play an important role in the reconstruction process because environmental issues, which are often transboundary in nature, have historically been a means of establishing crossborder cooperation and facilitating networks between countries. Additionally, the issue of environment can contribute to the aims of the Stability Pact as environmental cooperation is widely recognized as apolitically neutral issue on which common agreements can be easily formed, and which can contribute to the establishment of transboundary networks and cross-border agreements throughout the SEE region.

Today, the environment of SEE is seriously neglected - including post-war damage, insufficient institutional infrastructure, decaying industrial systems, and a legacy of years of unchecked pollution.

Additionally, the environmental institutional capacity in the national and local governments is seriously weakened and environmental civil society in SEE is in crisis. This is evidenced by inadequate legal frameworks, little public participation in decision-making, a low number of Non Governmental Organizations (NGOs), and a lack of public awareness - particularly regarding environmental issues - throughout the region.

Based on the experiences of transition in the current EU candidate countries of Central and Eastern Europe (CEE), it is clear that not only are short-term environmental investment projects readily acceptable and useful to governments and local communities, but that significant

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<sup>9</sup> AIICs plus FYR Macedonia, Bulgaria and Romania.

medium- to long-term benefits can be achieved if environmental concerns are properly integrated into any reconstruction strategy from the very beginning.

It is imperative that activities focusing on economic reconstruction be carried out with a view to long term sustainable development, rather than opting merely for short-term solutions. Therefore, adequate funds for environmental projects should be earmarked and environmental impact assessments, strategic environmental assessments and viable environmental investment strategies outlining the involvement and responsibilities for domestic institutions, should be developed and followed.

The Stability Pact for South Eastern Europe seeks to foster lasting peace, property and stability throughout the region affected by many recent conflicts. Regional cooperation is one of the fundamental instruments to achieve the objective of the Stability Pact<sup>10</sup>. Environmental cooperation can play a very useful role in fostering wider regional cooperation and is now recognized as one of the key regional activities that can contribute to the overall aims of the Stability Pact. Experience from other regions in Europe has shown that it has been possible to reinforce regional environmental cooperation in spite of wider political difficulties. This, in return, has helped to foster wider political dialogue.

Thus in SEE, regional cooperation in the field of environment can foster greater regional cooperation also in other areas and thereby can contribute to the reconstruction of the institutions, governments and viable civil society in the region.

As the Regional Environmental Center (REC) for Central and Eastern Europe experience demonstrates, short-term projects which focus on the development of environmental institutions and infrastructure are readily accepted by governments and communities and can be quickly evidenced as having a tangible, beneficial impact on the quality of life of individuals.

The REC, and the many other cooperating environmental agencies that are currently operating in the SEE region, are well-equipped to immediately begin working with SEE governments to implement such projects.

In addition, the integration of environment into the very beginning of the reconstruction process ensures that all activities serves to foster the long-term sustainable development of the region. Any reconstruction process of the Balkan region must focus on long-term effects if the goal is to develop stable, democratic and pluralistic societies, which are economically viable and which are able to solve their own problems themselves in the long run.

## **5. EXAMPLES OF MULTI-COUNTRY COOPERATIVE EFFORTS**

As outlined above, it is most beneficial to fostering regional stability if projects that have a transboundary dimension are given priority and particular support. Examples of such projects are the multi-country cooperative efforts that are already underway regarding Ohrid Lake and Lake Prespa<sup>11</sup>. Another very interesting case is the international co-operation for the protection of the

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<sup>10</sup> The Regional Environmental Reconstruction Programme (REReP) is the basis for environmental policy in South Eastern Europe, and the main environmental component of the Stability Pact, Working Table II. The REReP is the only initiative under the Stability Pact for South Eastern Europe that was taken by the countries of the region themselves - including Albania, Bosnia and Herzegovina, Bulgaria, Croatia, FYR Macedonia, Romania and Yugoslavia.

<sup>11</sup> Another ongoing project relates to Regional Environmental Reconstruction Program (REReP) for SEE: REReP 4.3.23 Promotion of Networks and Exchange of Experiences in the Countries of South Eastern Europe; 3 crossborder pilot areas: Neretva river Delta (Bosnia and Herzegovina and Croatia), Skadar lake (Albania and Yugoslavia - Montenegro), West Stara planina (Bulgaria and Yugoslavia - Serbia). Among the objectives, are the following: promotion of cooperation in the management and protection of key trans-boundary sites; promotion of local organisations and of cross-border exchanges between local organisations and people in the interest of managing shared resources; promotion of technical networks at a regional level in support of the effective management of the selected trans-boundary sites, and the integration of these networks with corresponding networks at the regional and international levels.

Danube River, that started in 1991 and was then formally completed with the adoption of the International Convention for the Sustainable Use of the Danube River in 1994.

The Danube River Basin is – after River Volga – the second largest catchment area in Europe with a size of around 800,000 km<sup>2</sup> and with around 82 mio. inhabitants. It discharges around 200 km<sup>3</sup> water per year to the Black Sea and its flow is as big as the River Volga.

The catchment area of River Danube covers at present territories of Austria, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, the Federal Republic of Germany, Hungary, Italy, Macedonia, Moldova, Poland, Romania, the Slovak Republic, Slovenia, Switzerland, Ukraine and the Federal Republic of Yugoslavia. Out of these 18 riparian States 13 States hold territories in the Danube basin bigger than 2,000 km<sup>2</sup>. These 13 States plus the European Community have access to the Danube River Protection Convention (DRPC) as Contracting Parties (see Table 1; the socio-economic situation of the region is described in Table 2).

**Table 1: Areas of the States riparian to the Danube Basin and estimate of the riparian inhabitants**

State	Total area of State (km <sup>2</sup> )	Area in the Danube Basin (DB) (km <sup>2</sup> )	Total inhabitants in States (1997) (million)	Estimate of total inhabitants in the DB (1997) (million)
<b>Federal Republic of Germany (D)</b>	356,974	56,240	81.7	9.1
<b>Austria (A)</b>	83,855	80,565	8.1	7.7
<b>Czech Republic (CZ)</b>	78,866	21,119	10.3	2.7
<b>Slovak Republic (SK)</b>	49,036	47,064	5.4	5.2
<b>Hungary (H)</b>	93,030	93,030	10.3	10.3
<b>Slovenia (SI)</b>	20,253	16,842	1.9	1.7
<b>Croatia (HR)</b>	56,542	34,404	4.8	3.2
<b>Bosnia and Herzegovina (BIH)</b>	51,129	38,719	3.2	2.5
<b>Federal Republic of Yugoslavia (YU)</b>	102,173	88,919	10.4	9.1
<b>Bulgaria (BG)</b>	110,994	46,896	8.4	4.4
<b>Romania (RO)</b>	238,391	232,200	22.6	21.8
<b>Moldova (MD)</b>	33,700	12,025	4.3	1.1
<b>Ukraine (UA)</b>	603,700	32,350	50.9	3.1
<b>Other States</b>	Exists	Exists	Exists	Exists
Total	-----	> 800.373	-----	> 81.9

Source: ITPS, 2001

**Table 2: Head specific gross domestic product in States riparian to the Danube Basin, expressed nominally and in purchase power parity (PPP), with the US\$ as basis (1998 values)**

State	D	A	CZ	SK	H	SI	HR	BG	RO	UA
GDP, nominal, US\$ per capita	28,280	26,300	5,470	3,840	4,710	8,790	4,440	1,500	1,690	830
GDP, PPP, US\$ per capita	21,170	21,670	13,100	10,190	10,780	14,990	7,050	5,360	6,060	3,270

*Data are valid for the year 1998, but not available for Bosnia and Herzegovina, Moldova and the Federal Republic of Yugoslavia.*

Source: ITPS, 2001

The administrative and managerial difficulties that were experienced in the first years of existence of the Convention seem to have been overtaken by its entrance into force on 22 October 1999.

This led to the setting up of the Permanent Secretariat with a decisive and essential contribution from the European Commission.

Present Member States of the European Union, candidate countries and third countries seem to be committed to the protection of the Danube River and to the application of the Convention. This has to be seen in the global and wider framework of the EU *acquis* on water management.

In order to secure the effective implementation and enforcement of the International Convention, the NGO's could play a relevant role. In this context, the Danube Environmental Forum could offer a wide platform of non-governmental organizations to create a common approach in the environmental protection of the Danube River.

The support to the International Commission for the Protection of the Danube River should include actions aiming at assisting in the environmental improvement of the Danube River while promoting the EU environmental *acquis* on water management; improving working relationship among the countries of Central and Eastern Europe and the other countries of the South Eastern Europe region; making the International Commission for the Protection of the Danube River the catalyst for the environmental cooperation among the countries of the region.

## 6. SUSTAINABILITY POLICY CHALLENGES: THE CASE OF AGRICULTURAL SECTOR

Possible cooperation among countries of the region<sup>12</sup> relates also to agriculture. Not only because the important role of this sector within the economy of most countries as well as the importance of intra-regional trade but also in relation to the (basic, current and ongoing) choice between two technology extremes and the consequent agricultural policy options. The two technology<sup>13</sup> extremes may be summarized as follow:

- on one side intensive farming based on well-known machinery, use of fertilizers and pesticides on larger and larger farms, introduction of industrial management practices, owned by relatively capital intensive companies;
- on the other side sustainable, possibly organic, farm methods, based on human labor intensive production on medium sized, typically family-owned farms, with regional processing units, which serve regional markets.

Mainly based on market response, there would also be a wider differentiation and refinement of products, which would fit into a strategy of specialized production for the world market.

The related policy extremes for the technology scenarios<sup>14</sup> could be described as follows.

Adaptation of the Common Agricultural Policy (CAP) as it is known today in EU, either based on an increased budget for CAP or on spreading the same CAP budget on more farmers. Or, replace subsidies and direct payments by incentive and tax schemes, which promote sustainable farm practices (see the last paragraph).

Agriculture represents a larger share of GDP in the countries under investigation than the EU-15 average, and an even larger share of total employment (Table 3).

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<sup>12</sup> This would apply equally to all AIICs or to sub-regions like SEE and CEE.

<sup>13</sup> "Technology" is here defined as the combination of certain techniques with compatible organisational structures and borne by a common underlying set of social values. In other words, technology is not only „hardware“ but also what others have phrased "orgware".

<sup>14</sup> It should be noted that this "technological" polarization excludes some important intermediate options, i.e. integrated agriculture, biotech agriculture and the like that may have a positive impact in other area of the world. See also OECD (2001).



**Table 3: Share of agriculture in GDP and in total employment in Central and East European Countries (per cent)**

	GDP		Employment in agriculture	
	1996	1999	1996	1999
<b>Albania</b>	55.4	55.0	64.5	64.0
<b>Bulgaria</b>	12.8	17.3	23.4	26.6
<b>Czech Republic</b>	3.9	3.7	4.1	5.3
<b>Estonia</b>	8.0	5.7	9.2	8.8
<b>Hungary</b>	5.8	5.5	8.2	7.1
<b>Latvia</b>	7.6	4.0	15.3	15.3
<b>Lithuania</b>	10.2	8.8	24.0	20.2
<b>Poland</b>	6.0	3.8	26.7	18.0
<b>Romania</b>	19.0	15.5	37.3	41.7
<b>Slovak Republic</b>	4.6	4.5	8.2	7.4
<b>Slovenia</b>	4.4	3.6	6.3	10.2
<b>EU-15</b>	1.7	1.8	4.7	4.5

Source: derived from OECD and EUROSTAT.

Thus the agricultural sector is less productive than the economy as a whole. If productivity were to be raised to EU-15 average level, only 30% of the present agricultural workforce would be needed for the same level of production.

Agriculture is presently undergoing a rapid change in terms of modernization of production methods, and changes in crops produced. One accompanying effect is a reduction in employment in the sector leading to a surplus of unskilled labor in rural areas. As the agricultural sector in some countries has served as backup for lack of social security (via subsistence farming), rapid transition may generate significant social pressure in these countries. Finally there is the environmental dimension where the sector is marked by relatively low average use of fertilizers and pesticides and thus has a relatively high level of bio diversity. This resource may come under growing pressure as modernization of agriculture lead to more capital intense modes of production.

The changes in agriculture is caused by many different factors but with the adaptation to market orientation being one of the most important. Market orientation in this context means European as well as global markets.

If countries under investigation are to:

- improve the earning potential of the agricultural sector;
- increase the efficiency of the agricultural sector;
- increase the GDP;

then agriculture must be restructured towards more capital intensive methods.

If, on the other hand, countries under investigation are to:

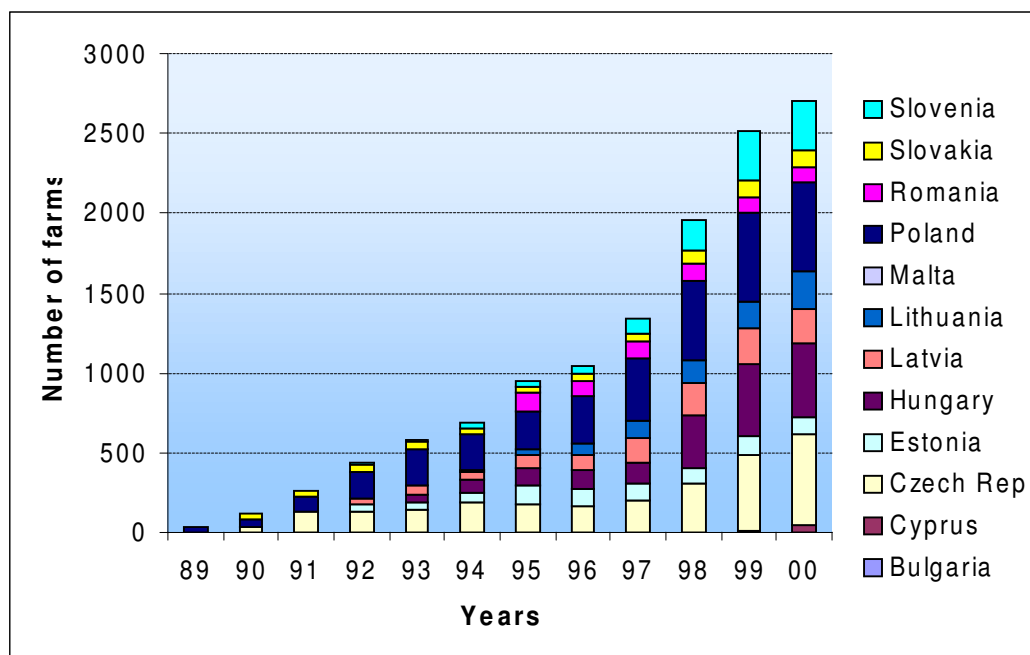
- improve the environmental performance of the agricultural sector;
- protect the weaker segment of rural population;
- increase living standards for those remaining in rural areas;

then agriculture must be restructured, but with a strong emphasis on job creation in rural areas, e.g. by emphasis on labor intensive, high value products such as organic foods and regionally labeled products.

Thus agricultural sector in AIICs is faced with the choice between a strong focus on economy vs. a stronger focus on social and environmental performance. As the example of organic products show, however, there may be win-win options for some segments of the rural economy.

Actually, an option to combat some of the negative social consequences of agricultural transition is the development of more labor intensive productions in the rural areas, such as organic farming, which tends to be more labor intensive than modern capital intensive farming (Figure 1).

Figure 1: Number of organic farms in in Central and East European Countries, 1989 – 2000 (figures for 1999 and 2000 are estimations)



Source: Lampkin and Foster 2000 (in ITPS, 2001)

This could also be a pro-active option in terms of environmental sustainability as conventional intensive agriculture often tends to use unsustainable quantities of pesticides and fertilizers, which for instance can cause environmental problems concerning groundwater pollution and the supply of drinking water.

## 7. SUSTAINABILITY AND MULTIFUNCTIONALITY: THE NEED OF A RADICAL CHANGE OF THE COMMON AGRICULTURAL AND RURAL POLICY

In this context, although AIICs and SEECs seem to have a long way to go, it is important a reference to the CAP reform process and to the CEECs accession to the EU. These processes rise some important and actually very urgent questions, that need to be answered in a short delay (and may have therefore some impact in the area under investigation). Not only because of the imminence of the eastward enlargement but also because sooner or later a number of other SEE (AIIC) countries will be involved in similar processes.

Schematically one could ask whether, as it is at this stage, CAP would be sustainable in the EU itself and, when the accession process will over (in principle by 2004), in the CEECs. After the “scandals” related to agriculture and food (foot and mouth, BSE, dioxin, GMO and the like), the EU public opinion showed a negative attitude toward CAP, that is considered a policy very costly (50% of the EU budgeted) and unable to preserve from a negative impact on food safety and quality, on environmental pollution, on animal welfare, on rural and agricultural jobs.

On the other side, if applied CAP as it is in the CEECs, all these problems will remain unsolved and, moreover, the cost would certainly increase - a cost basically paid by westerner consumers (and taxpayer).

Possibly this negative situation may be turned positive, and therefore this would be probably the right time and an unique occasion, if CAP would pass a process of radical change toward a more sustainable system both for agriculture and rural development.

Although very much (ab)used, the concept of “sustainability” seems to better address the current issues under discussion. As well known, sustainability refers to the use of resources, human, natural and man-made, in ways that allow current generations to satisfy their needs without jeopardising the capacity of future generations to meet theirs. As such, sustainability is a resource-oriented, long-term and global concept. Sustainable development and sustainable agriculture in particular, have been the subject of numerous conference and discussions over the last ten years, and have been enshrined as guiding principles in several international agreements and action plans.

The recent CAP’s reforms, namely Mac Sharry in 1992 and Agenda 2000, addressed some important issues and provided changes and adjustments. A very important step was the introduction of the notion of multifunctionality, that basically refers to the fact an economic-activity may have multiple outputs and, by virtue of this may contribute to several societal objectives at once. Multifunctionality is thus an activity-oriented concept that refers to specific properties of the production process and its multiple outputs.

On the other side, the concept of sustainability is essentially goal-oriented, implying that resources should be used in such a way that the value of the entire stock of capital (including its option value) does not diminish and indefinite stream of benefits can be obtained. The goal-oriented element may not always be evident, such as when the purpose of the exercise is to explore whether a particular type of agriculture is currently sustainable or not. But there is always an underlying assumption that the ultimate objective is to achieve sustainability. If an economic activity is not compatible with sustainable resource use, there is a problem that needs to be addressed.

By comparison, if an activity is not multifunctional, there is no imperative to make it multifunctional.

All this said, what we probably need now is a reconstruction - a change in thinking and practice - of CAP. In this respect sustainable agriculture should become the primary objective for agricultural and rural development policy, both in the Western and in Eastern part of Europe. A more sustainable agriculture seeks to make the best use of nature’s goods and services as functional inputs. It does this by integrating regenerative processes (such as nutrient cycling, nitrogen fixation, soil regeneration and natural enemies of pests) into food production processes. It minimises the use of inputs that damage the environment or harm human health. In other words, it is agriculture that minimises negative externalities and maximises the positive side-effects.

To move towards the goal of sustainable agriculture Pretty (2001) proposed for the UK a national plan. This approach could be considered as a very useful ‘platform’ to stimulate an EU debate and catalyse a reform process. As it actually happened just after the MacSharry Reform with the group co-ordinated by Allan Buckwell (CARPE).

A further elaboration of the following points, derived from Pretty (2001), considering both the EU and CEECs (AIICs and SEECs) perspectives as well as the WTO negotiations, might result in a very useful exercise.

#### I. Switch subsidies from production to the multifunctional side-effects of farming

Both the CAP and national subsidies need entirely to be switched from being production-based to providing positive incentives for land management with social, economic and environmental benefits. This can be done by offering direct subsidies for adoption of sustainable methods. An important policy principle suggests that it is more efficient to promote practices that do not damage the environment rather than spending on cleaning up after a problem has been created. Some agri-environment schemes have been extremely successful at supporting farm transformations that produce both private benefits for farmers and public ones for the environment and rural communities. Farmers who produce public goods that all can enjoy,

whether biodiversity, landscapes, clean water or flood protection, deserve public support. Establishing this clear principle inevitably leads to the need for fundamental reform of the CAP. In particular, such subsidies must provide preferential support to family farms over large agribusinesses. Current agri-environmental programs help large farms more than small farms. Operators of large units can afford to farm at least some of their land less intensively, in return for stewardship payments, whereas for many operators of small units, the payments are not generous enough for them to be able to forego intensive production techniques. Support payments must be designed to benefit smaller farmers.

Current agri-environmental schemes have contributed greatly to 'greening the edges' of agriculture. Losses of bird habitat, historic features, and natural and scenic landscapes have been substantially reduced. Where most of these schemes fall short is in restoring the farmland biodiversity that was lost during the twentieth century. Where mixed crop-livestock farming has dramatically decreased and crop systems have narrowed to two or three main cash crops, the schemes have failed to restore diversity. What is needed is an aggressive effort to restore legume-based rotations in arable areas through the creation of a targeted scheme to help underwrite this effort. Such a scheme would have multiple benefits, one of which is the reduction of externalities caused by high application rates of inorganic fertilisers and pesticides, a reduction in soil erosion and related productivity losses, and beneficial wildlife habitat provided by a more biologically diverse crop rotations.

## II. Develop a new 'Greener Food Standard'

Organic farming is now established in the market-place. But not all farmers feel able to make the jump in practices and thinking to organic farming. The price premium for organic food also takes it out of the reach of many consumers. There is therefore a strong case for a new intermediate food standard – what might be called a Greener Food Standard - which would push the market towards more sustainable environmental practices than the current norm while not requiring the full commitment to organic production.

There are of course already a variety of food standards in the marketplace. But none have the integrity and consumer trust associated with the 'organic' label. Indeed, the proliferation of such standards makes most consumers simply confused. A single intermediate standard accepted throughout the industry – in the way that European 'eco-labels' are now used in other sectors – would eliminate such confusion, giving consumers a powerful steer towards more sustainable food choices. At the same time, it would give farmers more incentive to improve their environmental practices. Such a standard should be based on so-called Integrated Farming Systems, which draw on best practice from conventional and organic methods and integrate farming and land management practices across the whole of each farm.

Clearly the definition of a Greener Food Standard would need detailed negotiation among all stakeholders in the food industry – farmers, retailers, consumers, NGOs, government – but there is every reason to believe that agreement could be reached.

A Greener Food Standard, based on a substantial transition towards sustainability – the reduction of external costs and the increase in external benefits - could go a long way to shifting both farmers and consumers towards a more sustainable system.

## III. Use the tax system to encourage more sustainable farming

Environmental taxes seek to internalise the environmental costs of production, requiring polluters to pay for the damage they cause and thereby providing incentives to reduce it. The market prices for agricultural inputs and products do not currently reflect the full costs of farming. Such green taxes offer the opportunity of a 'double dividend' by cutting environmental damage, particularly from non-point sources of pollution, whilst promoting welfare. Environmental taxes have begun to be applied in many countries: pesticide taxes in Denmark,

Finland, Sweden and in several states of the USA; fertilizer taxes in Austria, Finland, Sweden, and again several states of the USA; and manure charges in Belgium and the Netherlands.

One of the advantages of environmental taxes is that the revenues raised can be recycled back into subsidies for environmentally improved practices. In this way environmental problems can be tackled 'from both ends'. Use of the revenues of this way is also likely to increase the acceptability of the tax.

At the same time it is well established that organic farms and those adding value and/or selling direct to consumers create more jobs than conventional farms. These small businesses can be the driver of rural economic growth. They should be rewarded with reduced tax regimes, through national insurance or council tax rebates. Small rural enterprises below a defined size would be eligible, and would therefore be encouraged to engage in employment-creating activities.

#### IV. Develop new markets for positive side-effects of farming, particularly carbon

The 1997 Kyoto Protocol and the recent Bonn agreement have established an international context for the reduction of carbon emissions and increases in carbon sinks through the principle of financial and technological transfers to land management. Agriculture can sequester carbon when organic matter is accumulated in the soil, and when above-ground woody biomass acts either as a permanent sink or is used as an energy source (biofuel) that substitutes for fossil fuels. There is now great international interest in carbon trading systems. These need actively to be developed to provide new opportunities for additional farm income, thereby 'joining up' the Government's climate change and farming policies. Systems accumulating carbon also deliver many other public goods, such as improved biodiversity and clean water from watersheds, and policy makers may also seek to price these so as to increase the total payment package.

All these policy shift may have a positive impact not only in farming sector both in the EU and in the CEECs (and in future in SEECs and AIICs) but also to strength the EU (and CEECs as well) position in the current WTO negotiations

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