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Cooperation, Competition, Solidarity

How to Reform CAP to improve agriculture's contribution to the Europe 2020 Strategy?

The window of opportunity is narrowing for making the political and budgetary choices which will shape the European Union's economic, social and environmental future from now until 2020. The "Europe 2020 Strategy" which endows the EU with a new growth strategy was adopted by the Heads of State or Government in June 2010. In 2011, the European Commission will initiate the debate on post-2013 CAP reform and the multiannual financial framework.

This paper is the fruit of an experts seminar co-organised by *Notre Europe* and *Real Instituto Elcano* in Madrid on the occasion of the Spanish Presidency of the Council of the European Union. More than a mere compilation of analyses, this study aims to contribute to the public debate on the future of EU policies and the European budget by proposing to examine to what extent the most integrated of all EU policies has contributed to the Union's medium-term growth objectives.

Are agriculture and the CAP promoting smart, sustainable and inclusive growth? How can the CAP be reformed in such a way as to strengthen this contribution? The Spanish Minister of the Environment and Rural and Marine Affairs (June 2010), and some representatives of the European Commission, the Spanish Ministry of the Environment, the IEEP, the INRA, COPA-COGECA, OXFAM, Passions Céréales, of Wageningen and Cordoba Universities, will answer these questions.

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How to Reform CAP to improve agriculture's contribution to the Europe 2020 Strategy?

Directed by Nadège CHAMBON and Sofia FERNANDES

Mrs. Elena ESPINOSA MANGANA, Raoul BINO, Tamsin COOPER, Emmanuel COSTE, Gonzalo FANJUL SUÀREZ, Nicolas FERENCZI, Elias FERERES, Antonio DI GIULIO, Jean-François GLEIZES, Alexandre GOHIN, Jaime LILLO, Huub LÖFFLER and Ignacio MOLINA.

Synthesis
Madrid
June 2010
Seminar

Synthesis

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How to Reform CAP to improve agriculture's contribution to the Europe 2020 Strategy?

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Synthesis of the Seminar in Madrid "*Towards a smart, sustainable and inclusive economy: How to reform CAP to improve agriculture's contribution to the Europe 2020 Strategy?*"

Opening Speech by Elena Espinosa Mangana, *Spanish Minister of the Environment and Rural and Marin Affairs*

With the contributions of Raoul Bino, Tamsin Cooper, Emmanuel Coste, Gonzalo Fanjul Suàrez, Nicolas Ferenczi, Elias Fereres, Antonio di Giulio, Jean-François Gleizes, Alexandre Gohin, Jaime Lillo, Huub Löffler and Ignacio Molina.

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In this vein, the staff of Notre Europe *directs research projects; produces and disseminates analyses in the form of short notes, studies, and articles; and organises public debates and seminars. Its analyses and proposals are concentrated around four themes:*

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Foreword

The Common Agricultural Policy (CAP) has been one of the most important common policies since the Treaty of Rome first came into force, in other words since European integration took its first timid steps. The CAP is not simply the oldest but also the most integrated common policy because farming is the sphere in which member states have pooled their sovereignty to the highest degree. The CAP's share of the EU budget reflects this singular status, inasmuch as it accounted for fully 40.8% of commitment appropriation in 2007, thus topping the common spending list.

Efforts to adjust and to adapt the CAP to issues both within and outside the EU have prompted a series of successive CAP reforms since 1992. Yet this extremely popular policy has been the target of endless criticism within the enclave of expert debate; and ironically, given that its status as "most integrated policy" makes it a powerful lever for addressing common challenges, it has been increasingly sidelined now in debates on the EU's future for some years now.

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So, as the EU gets set to launch its new growth strategy for the next ten years and while the debate on CAP reform for after 2013 is under way, it is worthwhile linking these two debates by analyzing the contribution made by agriculture and by the CAP to the EU's current challenges and to its growth strategy, known as the Europe 2020 Strategy.

The Europe 2020 Strategy, the successor to the Lisbon Strategy adopted in 2000, comprises three priorities:

- *smart* growth, through the development of an economy based on knowledge and innovation;

- *sustainable* growth, through the promotion of an economy that is greener, more competitive and more efficient in its use of resources;

- *inclusive* growth, by encouraging a rise in the employment rate and by fostering social and territorial cohesion.

While the CAP has not been a definite factor in the EU growth strategy's road map to date, the leading players in Europe are now highlighting this policy's contribution to the goals enshrined in the Europe 2020 Strategy. The Spanish EU Council presidency in the first semester of 2010 played an especially active role in this sense.

The Spanish presidency shone the spotlight on the issue by promoting a debate on the CAP's contribution to the Europe 2020 Strategy's goals and priorities at the agriculture ministers' meeting in March; and it then took that initial debate even further at an informal agriculture ministers' meeting in Merida in June in the discussion of a weighty working document entitled: "Agriculture and reform of the CAP in the perspective of the EU 2020 Strategy". This initiative points up Spain's desire to commit to the debate on the CAP's future, thus continuing the efforts made by France, by the Czech Republic and by Sweden to foster exchanges of opinion on this common policy's future at informal agriculture ministers' meetings held under their respective presidencies.

The Heads of State or Government also highlighted the importance of the CAP's contribution to the new strategy when they ruled that: "All common policies, including the common agricultural policy and the cohesion policy, must support the strategy. A sustainable, productive and competitive agricultural sector will make an important contribution to the new strategy, considering the potential for growth and employment that rural areas have, while ensuring fair terms of competition"[1]. At the same time, the European Commission launched a public consultation in April on the CAP's future after 2013, seeking to trigger a debate on ways of strenthening the role that the policy might play in the Europe 2020 Strategy's targets of smart, sustainable and inclusive growth.

The intention of forging a tighter bond between the CAP and the Europe 2020 Strategy has thus begun to enjoy currency over the past few months. But having said that, the intention has yet to be turned into concrete and specific action. The issue is an important one because, ahead of budget negotiations that look set to be tough on agriculture, it is important to explain the usefulness of agricultural and rural expenditure in the context of the EU's overall objectives, which the Europe 2020 Strategy is meant to establish.

A seminar organized by *Notre Europe* and by the *Real Instituto Elcano* on 24 June 2010, entitled "Towards a Smart, Sustainable and Inclusive Economy: How can we reform the CAP to improve agriculture's contribution to the Europe 2020 Strategy?" set itself two goals. On the one hand, it endeavoured to analyze agriculture's contribution to the EU's new priorities and challenges; and on the other, it aimed to suggest leads for CAP reform in

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order to strengthen the contribution of this "old" EU policy to the Europe 2020 Strategy's goals.

Notre Europe and the *Real Instituto Elcano* invited severals contributors, most of whom were non-CAP specialists from the world of acadamic research and think tanks, from national and Community civil service and from farm labour unions and NGOs, to conduct an atypical debate. We asked them to assess the contribution that today's agriculture makes to a smart, sustainable and inclusive economy, and to then suggest ways in which the CAP might be improved to strengthen that contribution. We would like to thank them for responding to the exercise.

Faithfully mirroring the seminar, this volume contains a digest of the proposals put forward by those contributors, followed by their full contributions set out to reflect the Europe 2020 Strategy's three priority goals. Our hope is that the volume may add clarity of focus to the debate on CAP's contribution to the EU's overall goals and that, ahead of the budget debate, it will help to put agriculture and the CAP firmly back in their place as part and parcel of the general debate on EU policies and their objectives.

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and Ignacio MOLINA *(Real Instituto Elcano)*

We would like to thank Sophie Briquetti and Robert Cenzon (Notre Europe), Pilar Tena and Manen Taibo (Real Instituto Elcano) for their participation in the organisation of the seminar held in Madrid on 24 June 2010.

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How to reform CAP to improve agriculture's contribution to the Europe 2020 Strategy? Synthesis

Nadège Chambon and Sofia Fernandes

Jaime Lillo, adviser to the Spanish presidency of the European Union Council, waxed reassuring. As Spain's mandate draws to a close, he remarked that "by comparison with the situation six months ago (…), farming and the CAP appear to enjoy a higher level of recognition as one of the bases for Europe's future economic model. This statement is based on the fact that the EU heads of state or government have built farming and the CAP into the Europe 2020 Strategy. One of our main concerns was that farming might not be included in that strategy." It is true that the CAP did not get off to a good start in the Europe 2020 Strategy, because it was not mentioned in the European Commission Communication dated March 2010. In the course of the first semester of 2010, Spain's effort has helped to foster a new perception of the EU's most integrated policy and of its ability to respond to the challenges facing Europe in the medium term. But that does not mean that European agriculture has a blank cheque: "The CAP has to make an effort to better meet the priorities laid down in the Europe 2020 Strategy, via the upcoming reform of the CAP after 2013", the adviser to Spain's presidency specified.

But aside from all the declarations, what role can farming and the CAP play in helping to achieve the Europe 2020 Strategy's goals? In what ways can the CAP's reform strengthen that contribution? The seminar organised by *Notre Europe* and by the *Real Instituto Elcano* has endeavoured to form a picture of the situation today and to then discern the paths to be pursued for improving the CAP in an effort to boost its contribution to the EU's new growth strategy. The growth model enshrined in this strategy recommends growth over the next ten years that is smart, sustainable and inclusive. Speakers at the seminar analyzed the contribution of farming and of the CAP to the Europe 2020 Strategy in the light of these three focal points. Marking their distance from some of the traditional debates that we have witnessed to date on the CAP, these speakers argued the case for looking at farming in Europe from a new angle.

1. Towards Smart Growth

Like the Lisbon Strategy before it, the EU's new strategy for growth identifies knowledge and innovation as the driving forces behind Europe's growth.

One of the five goals outlined in the Europe 2020 Strategy involves raising the sum of public and private investment in research and development (R&D) from its current level of 1.5% to 3.0% of GDP. Agriculture is one of the spheres in which investment in R&D can and must be expanded, because the challenges that the farming and agri-foodstuffs industries are going to face in the future are enormous. As the document prepared by the Spanish presidency for the informal agriculture ministers' meeting in Merida stresses:

"A future scenario is emerging in which it will be necessary to produce more with lower input and from a limited area. Natural resources are also limited, so it is necessary to step up the technological research & development which help to increase productivity while ensuring the maintenance and proper use of existing resources".

a) Strengthening research in Europe: increasing resources and reducing fragmentation

Agricultural expenditure is very much a Community affair (accounting for some 72% of direct aid) while spending on R&D is far less so (6.9%). These figures for the budget shareout between the national and Community levels show the way in which research is structured within the EU: while cooperation projects are increasingly set in motion within a European framework, they then tend for the most part to be carried forward at the national level. Noting that the greatest challenges facing agriculture ahead of 2020 are shared by all of the member states, speakers appealed for an improvement in coordination and for a boost to the still far too limited degree of synergy among Europe's researchers. Such cooperation would also make it possible to achieve economies of scale. Other proposals were put forward to strengthen the performance of agricultural research and of the food-supply chain in Europe. The former is a matter of education, given that good quality primary and secondary education are considered crucial in training future researchers, thus it requires sustained attention. The second path to pursue in order to boost research performance is based on connecting players located both up and downstream in the production chain, whether they are representatives of the public sector, researchers or industrialists. Thus it is a matter of "strengthening the innovation chain" that stretches from initial ideas right down to the marketplace. "This will involve mobilising knowledge capability and critical mass within all segments of the research continuum and translating this knowledge into revenue-generating economic activity." (Antonio Di Giulio) Along the same lines, the Spanish duty presidency stressed that within the research and innovation process, the agri-foodstuffs industry has a driving role to play: "(…) it is

up to the agri-foodstuffs industry to lead the RDI process in order to help meet these challenges and see that there is an increase in the supply of healthier, securer and more varied foodstuffs with a high added value. All of which will require multi-disciplinary action and the stepping up of coordination, including education and training, since this is what will make it easier to give practical application to the advances achieved".[1]

b) Future challenges facing agricultural research

Farming in Europe is currently facing two major global challenges: a challenge in the field of food proper (i.e. ensuring sufficient and good-quality production) and an environmental and climate-based challenge; as Elias Fereres puts it:"We face a big challenge of producing sufficient healthy and nutritious food for Europe and for the world in a sustainable way."

The main challenge facing agriculture today is feeding the world, as demonstrated by the figures provided by Jean-Françiois Gleize and Nicolas Ferenczi, "Global agriculture can expect there to be a major increase in the demand for food: an additional one billion human beings are expected to populate the planet by 2020 (12%) and and additional 2.3 billion by 2050 (+34%). This increase in the population will be accompanied by a rise in per-home consumption in developing countries. According to the FAPRI, these changes would require the production of an additional 224 million tonnes of cereals a year by 2018, equivalent to an increase of 18%". While there was a consensus in support of that statement, there was no agreement in the analysis of its potential consequences. Some advocated an increase in Europe's agricultural output to cope with the rising demand for food worldwide, while others argued that it is not the EU's responsibility to guarantee a supply of food either for 500 million European consumers or for the rest of the world: "It is neither the EU's responsibility, nor that of the United States, to feed Africa (...) Europe does not have a right to food self-sufficiency (...) inasmuch as its wealth allows it to obtain its food through world trade", argued Gonzalo Fanjul Suarez, representing the NGO OXFAM.

In addition to the food challenge, there is also the environmental and climate-based challenge. Speakers dwelled at some length on the substance of this challenge to farming, arguing that it is necessary to make food production sustainable: by preventing the deterioration of the environment; by optimizing input consumption, thus moving on from a conventional model of farming to a model based on low input (of fertilizers, pesticides and water, in particular); by improving safeguards for plant and animal health; and by improving the management of water and waste (especially in the agri-foodstuffs sector). Where the climate is concerned, agriculture must play a role in the effort to reduce greenhouse gas emissions and to combat the negative impact of global warming on agricultural productivity.

The way in which agriculture must conjugate these two major challenges in the next few decades can be summed up thus: it must manage to "produce more with less input". Given that extending the cultivable surface area over a certain threshold may prove detrimental to the environment (in terms of greenhouse gas emissions and of the undermining of biodiversity), progress in agricultural output depends on improving yield and productivity. This goal, however, may prove complicated to achieve in view of the fact that "the closer we draw to maximum yield per hectare, as is happening within the EU, the more difficult it is to close the yield gap", according to Professor Elias Fereres. Since 1995, European farmers have noted "a stagnation in their average yearly crop yield" after a rise "caused by innovation. Several factors are seen as being to blame for this: the climate, first and foremost, is considered one of the leading guilty parties with drought and excessively high temperatures. Second, the increase

1 Spanish EU Council Presidency Working Document: "Agriculture and CAP Reform in the Context of the Europe 2020 Strategy", June 2010.

in resistance to fungicides and a decrease in their use, the demand for quality grains restricts progress in yields, and seed selection fails to take new climate constraints into account to a sufficient degree. And finally, the root cause of stagnation lies in economic and regulatory factors, as we have seen over the past few years with the rising cost of inputs at a time of low prices and stiffer regulations governing plant health products or nitrates", according to Jean-François Gleizes and Nicolas Ferenczi.

c) Ways for agriculture to boost its contribution to smart growth

Speakers dwelt in particular on the need to improve performance throughout the food production chain. Within the constraints of the modest room for maneuvre that common research policy currently allows, the European Commission has already devoted several projects to this aspect. It also promotes a broader approach, not restricted merely to agricultural output, because it addresses the "food chain" in its entirety, stretching from "the pitch fork to the table fork", as Antonio di Giulio puts it. Like all projects promoted by the Directorate General for Research, these projects are designed to comply with the Europe 2020 Strategy. Research projects concerning agriculture and agri-foodstuffs, in particular, are linked to the concept of a "bio-economy based on knowledge", around which several of the DG for Research's projects are built.

According to the speakers, one of the most promising paths for the future is precision farming, which allows intensive practices to improve their efficiency in the use of inputs. Thanks to the use of such new technologies as geographic tracking by satellite and micro-informatics, precision farming is thus capable of optimizing the agricultural results of Europe's crop output while curbing their impact on the environment. Stress was also laid on the importance of life sciences: "Life Sciences are the driver of all these developments. A thorough understanding of the functioning of genes and proteins and their interactions with external factors as well as their effects on traits, (micro-) organisms, environment and agricultural systems are of crucial importance", according to Raoul Bino. Where GMOs are concerned, current research is focusing on three areas: GMO seed yield, those seeds' potential risks for human health, and their impact on the environment. Finally, the need was also aired for a "return to agronomics", which Jean-François Gleizes and Nicolas Ferenczi argued is bound to bring improvements in the area of "crop rotation in order to improve the management of agrestals; of techniques for mechanical weed control; and also the establishment of local networks making it possible to devise agricultural practices tailored to local issues. Basic research and applied research would stand to gain from an improvement in synergies."

2. Towards sustainable growth

The second priority in the Europe 2020 Strategy, namely sustainable growth, promotes "a more effective, greener and more competitive economy in the use of resources"[2]. In particular, growth in the European economy will have to be pursued "in a world low on carbon and with limited resources, while at the same time avoiding the deterioration of the environment, the shrinking of biodiversity, and the non-sustainable use of resources."[3]

Farming has a primary role to play in this context, as the EU agriculture ministers argued: "Maintaining agricultural activity throughout EU territory plays a key role in sustainable use of resources, job creation and helping to meet the food challenge, while bringing public benefits to the environment such as the preserving of habitats, biodiversity and attractive rural areas."[4]

2 European Commission Communication entitled: "Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth", March 2010.
3 Ibid.
4 Spanish EU Council Presidency Working Document: "Agriculture and CAP Reform in the Context of the Europe 2020 Strategy", June 2010.

a) The path trodden by the CAP in considering environment-related issues

The CAP was established in 1957 and it began to be implemented as of 1962, whereas sustainable development was gradually introduced into the Community environment from the 1980s onwards. At first the environment was not one of agricultural policy's priorities, its goals being to boost agricultural productivity, to offer farmers a decent standard of living and consumers a fair price, to stabilize markets, and to guarantee certainty of supply. A subsequent series of reforms enabled it to add the principles of respect for the environment and of rural development to its platform. The first agro-environmental measures were adopted in the 1990s and further developed in the first decade of the new millennium.

Today the CAP acts in favor of sustainable development as defined in the Europe 2020 Strategy. This is achieved principally through measures envisaged in the second pillar, although we should not forget that, since the reform of 2003, the single payments of the first pillar are subordinated to compliance with the agricultural and environmental terms laid down by the member states and by the Community standards in force in the sphere of the environment. The rural development measures envisaged in the second pillar are concerned with agricultural competitiveness, with public environmental and landscape goods, with boosting efficiency in the use of resources, with biodiversity, with land management, with cutting greenhouse gases, with the promotion of investments in green technologies, with the development of skills and training, and with improving soil and water quality. The climate is emerging as a new priority. Current environmental goals account for 40% of second pillar funds for the budgetary period stretching from 2007 to 2013, split into three sections: agri-environmental measures, natural handicap measures, and Natura 2000.

CAP reform after 2013 must therefore continue to pursue the transition, which has been ongoing for several years, towards a more sustainable form of agriculture. Current policy is faulted, in particular, for insufficiently encouraging farmers to lean towards agri-environmental measures, which are less remunerative than single payments. This common policy must support production methods that simultaneously work in favour of a reduction in greenhouse gases, of energy self-sufficiency for farms, of improved water management, of soil fertility, and of the conservation of biodiversity, rural landscapes and the land in general.

b) The European agricultural model, between competitiveness and concern for the environment

One of the European agricultural model's characteristic features is the complementary nature of agriculture's market-oriented productive functions and its non-market functions. In this connection, Tamsin Cooper remarked that: "sustainable growth is very much in keeping with the European agricultural model's underlying concept, which allows food and energy production to coexist alongside the provision of a range of non-market environmental services."

But aside from this characteristic, Europe's farms can generally be divided into two kinds of agricultural practice: extensive or intensive. Extensive farming is generally practiced over vast areas and typically produces relatively weak yields per hectare, while intensive farming is based on boosting productivity, which results in an increase in the ratio between volume of output and quantity of resources used. These two kinds of agricultural practice have different advantages and disadvantages in economic, social and environmental terms.

Intensive farming leads to an increase in productivity, but it is criticized for being more harmful to the environment than extensive farming. Jean-François Gleizes and Nicolas Ferenczi, however, dispute that contention: "intensive methods produce more food, energy and environmental damage

per hectare involved; however, if we consider the situation in terms of unit produced (or of human beings fed), then (...) we find that the most productive methods per hectare are often those that use less oil and emit fewer greenhouse gases." On that basis they argue that agriculture's environmental sustainability must not be based on extensification, especially in view of the fact that less and less cultivable land is available. Rather, it must be based on more sustainable productivity, which is going to involve "a return to agronomics", and on research and innovation, which should offer farmers new technologies capable of containing the environmental damage caused by intensive agriculture.

Extensive production methods, for their part, produce greater environmental public goods (for instance, high environmental value farming) but they are often threatened by desertification and less productivity, or else they depend on subsidies such as when they are located in naturally handicapped areas (in mountain regions, for example). Yet they, too, must be maintained because they have an important role to play in the conservation of traditional practices and customs, in the economic dynamism typical of their kind of farm, and in the provision of such crucial public goods as biodiversity.

c) Paying for public goods provided by farmers

Several solutions were proposed regarding the CAP's first pillar aid, in an effort to ensure that the CAP takes the environmental and climate-related challenge into greater consideration after 2013. First of all, it was suggested that the first pillar's conditionality be maintained, but merged at the European level so that each player can respond to the same constraints in their own way (Jean-François Gleizes and Nicolas Ferenczi). Yet it is possible to go even further than that. Several speakers underscore the importance of the social and environmental public goods provided by farmers. "We have already worked on providing public goods, we must not debase this term: we consider that, where water, air and biodiversity are concerned, we have already done a great deal and we have to safeguard this heritage with a CAP that binds the citizen, the farmer and the taxpayer together", Emmanuel Coste argues. Tamsin Cooper suggests, in this connection, that it is important to take into account, and even to estimate the price of the non-market goods provided by farmers. A part of the aid provided for in the first pillar could thus be devoted to paying for the public goods and services that farmers supply to civil society and to the environment.

d) Towards the efficient management of resources

Farming must adopt agricultural practices that are compatible with the conservation of natural resources (water, soil, biodiversity) and it must improve its performance in the energy field. This environmental goal also contains an economic aspect, if we consider that natural resources are agricultural activity's main input. In this connection, Tamsin Cooper mentions the French example of the "Plant Plan for the Environment", which funds investments in equipment for precision farming with the aim of reducing the pollution caused by pesticides and fertilizers, of decreasing soil erosion and of boosting energy efficiency. In addition to these environmental and energy-related goals, there are the advantages for the farmer of lower costs and of an improvement in yield that the use of such equipment entails. Thus it is important to highlight the fact that the environmental and economic aspects are complementary to one another, in an effort to ensure that environmental constraints find a more favourable reception with farmers and that the aid provided be considered legitimate by the public at large. Where energy resources are concerned, Jean-François Gleizes and Nicolas Ferenczi highlight the fact that it is crucial "to reduce Europe's energy dependence and to cut back on the use of non-renewable resources such as hydrocarbons, for instance. "

3.Towards inclusive growth

Inclusive growth is defined in the Europe 2020 Strategy as "an economy fostering a high-employment economy delivering social and territorial cohesion." Sure enough, the high-employment issue is indeed crucial. "Europe needs to make full use of its labour potential to face the challenges of an ageing population and rising global competition", the Commission points out in its Communication.

The agriculture, forestry, hunting and fishing industries employ 13.6 million workers on a full-time basis in the 27-strong EU, in addition to which there are 5 million jobs in the agri-foodstuffs industry. Overall, that accounts for fully 8.6% of jobs in the EU[5]. But aside from these stark figures, the farming and agri-foodstuffs industries play a crucial role in preserving the dynamism of Europe's rural economy. It is precisely in order to "boost dynamism and jobs in rural areas" that the Spanish duty presidency argues that: "Policies are therefore needed which make agricultural activity attractive as a skilled professional activity, build up the agri-foodstuffs industry, and promote the education, training and involvement of women and young people."

a) A remarkable and irreplaceable contribution to jobs and dynamism in rural areas

Rural areas make up 91% of the EU's territory and they account for 56% of its overall population[6]. The agriculture, forestry, hunting and fishing industries provide 14% of all jobs in an average rural area, with peaks reaching as high as 25% in the east and south of the EU. Thus we may consider agriculture and the industries downstream of it to be the driving force in the economic and social development of those areas, with a multiplier effect in rural economies. Apart from providing healthy, diversified and sufficient food, farming also plays a role in the development of small businesses, arts and crafts, logistics, distribution and even rural tourism (Emmanuel Coste).

The farmer often has the concrete material ability to maintain the road system in areas distant from urban centres thanks to his equipment (for removing snow, for controlling weeds and so forth). He is the last bulwark against the desertification or the marginalization of such areas, thus he plays a role in the EU's territorial cohesion. In poor economies, rearing livestock plays a crucial role in employment because "it is spread over the last areas where farming can still be practiced," according to Emmanuel Coste, thus it is frequently "the last driving force for development." This is true of several member states, particularly of Romania, of Greece, of France and even of Ireland.

The CAP helps to foster and to preserve dynamism in rural areas in the framework of the second pillar. These measures are mainly enshrined in Axis 3 of the EAFRD entitled "Quality of life in rural areas and diversification of the rural economy" and in the context of the LEADER programmes. These measures concern the rural heritage, tourist activities and business diversification. Tamsin Cooper says that "they account for 15 to 20% of overall 2nd pillar expenditure in the budgetary period stretching from 2007 to 2013." Despite this, a proposal was still put forward to devote greater consideration to agriculture's integrating function – indeed, we might even call it its territorial function – by allowing future support measures to take agricultural activity's non-market functions into account.

5 Spanish EU Council Presidency Working Document: "Agriculture and CAP Reform in the Context of the Europe 2020 Strategy", June 2010.
6 Directorate General for Agricultural and Rural Development figures for 2007, European Commission http://ec.europa.eu/agriculture/rurdev/index_fr.htm.

b) The fragilities of farming: an ageing population and uncertain income

Farming displays fragilities, and that fact should prompt us to diagnose the threats hanging over this important driving force for the economic and social development of Europe's rural areas. We might mention the ageing farming population, part-time or seasonal jobs that cannot guarantee a year-round income, or access to new technologies and building them into the business, but the main concern is income. As Jaime Lillo stressed, "the average income from farming is lower by half than the average income in other industries."

The demographic threat: the farming population is ageing and decreasing

Farming is suffering from a major drop in the number of people employed in the industry, from a lack of turnover and from a major ageing problem. "The disappearance of farmers should be an issue for debate in the context of biodiversity year," Elias Fereres quippes. The scenario is especially noticeable in the livestock rearing industry. Emmanuel Coste reportes that fully half of Europe's livestock farmers are aged over 50, or even over 60 in certain member states. In the absence of anything sufficiently attractive to lure replacements for those livestock farmers, the profession is set simply to vanish. In that connection, it is easy to identify the choice that governs the future and that is going to define the future CAP: "the crucial factor in deciding our future is deciding whether we still want to have farmers in Europe or not" (Jaime Lillo). Thus the CAP would play a predominant role in the field of agricultural employment, which suggests that it would be wise to adopt a prudent stance in any reforms envisioned. This is confirmed by the evidence submitted by economist Alexandre Gohin: "The CAP is frequently accused of being ineffectual, but it is by no means ineffectual in internal terms (...) Abolishing the CAP would lead to a substantive drop in the number of jobs in farming, somewhere in the region of 11%, and to an even greater decrease in agricultural income, which would drop by something over 30% (...) The areas hardest hit by the abolition of the CAP would be corn in crop farming and dairy cows in livestock rearing "

To ensure that agriculture survives and that farmers continue to populate our rural areas, we need to make farming an attractive business, in other words a business that guarantees an acceptable and stable income level and that offers good working conditions.

A major and crucial concern: income

Everyone's attention in the industry is focused on the failure of the agricultural markets and on growing price volatility, because they are factors that help to increase the instability of income from farming. Unstable income and the crises being experienced by the various sectors of the industry are a crucial question that agricultural policy has to resolve if it is to ensure the survival of our farms. INRA economist Alexandre Gohin discernes three types of market failure: "the existence of public goods and the presence of externalities; market power offering certain players the chance to manipulate prices; and the occurrence of events against which the economic players cannot protect themselves because corresponding markets do not exist." While the CAP "has rapidly moved away from correcting market failures and has turned into a policy in support of income from farming that generates costly and distorting surpluses", the reforms implemented over the past 20 years have corrected a number of shortcomings and the CAP plays an important but complex role. Today, thanks to direct payments, it enables the authorities to implement a far from negligible shock absorber for income in the event of a sharp drop in prices. But it is insufficient nevertheless.

The milk crisis, when milk "became cheaper than water", perfectly illustrates the imperfection of the mechanism for the transmission of prices to the producer right down the food chain, which affects the normal functioning of the production system. The "downstream sectors" (food transforma-

tion and distribution) do not fully pass on to the consumer any price drops the farmer may suffer." As things stand today "volatile prices are a major problem for farmers' income" (Elias Fereres). To combat price volatility, the CAP already provides a shock absorber for major income fluctuation in the shape of the single payments mentioned by Jean-François Gleizes and Nicolas Ferenczi. While the CAP makes it possible to implement a shock absorber against price fluctuation through the dispensation of aid, they add that it should be completed by "tools designed to contain price volatility" and "by a certain number of shock absorber tools that have yet to be invented". They also suggest that "it would be beneficial to urge farmers to practice precautionary savings in order to stabilize their income". One tool that should be developed would involve giving the primary sector a greater role in the price formation mechanism in the overall food chain.

c) Ways for agriculture to boost its contribution to inclusive growth

Given this context, it would be rash to think that, without direct aid, farming can continue to be an attractive proposition for young people.

Apart from the basic premium, it would be necessary to propose aid that includes within it a "job" factor; in other words, aid based on the presence of the business itself and on job creation in poor economies. This would have an impact on the poorer member states in particular. Thereafter, it would be necessary to facilitate access to farm job training for people who, while not originally hailing from the farming world, still find it an attractive proposition, particularly women and the young urban population. The tools that need to be reformed as a priority in this connection are: direct aid, and the tools for managing markets and rural development. If direct aid is still the most important budget within the CAP, then that needs to change and the system must move over to paying for services rendered to society, adopting for the purpose a system that is "easy both to explain and to implement. "

Strengthening CAP's and agriculture's contribution to the Europe 2020 Strategy

A majority of speakers dwelt on the need for the people of Europe to rediscover the added value of the CAP and of farming, in view of the fact that they already make an important contribution to the goals of the EU's new strategy for growth.

The speakers identified numerous challenges facing the farming industry, in particular: the stagnation of productivity; the rising demand for food worldwide; climate change; the effective management of resources; an ageing and declining farming population; and price volatility. R&D and innovation hold considerable potential for providing solutions to these challenges, but achieving the kind of critical mass that would allow Europe's researchers to come up with those solutions is a challenge in and of itself. This, because increasing investments, boosting synergies among member states and increasing cooperation between the upstream and downstream sectors of the food production chain are all necessary to strengthen R&D.

Within the CAP itself, there are several paths for improving the contribution of agriculture to the Europe 2020 Strategy's goals. Particular stress was laid on overhauling the aid system in order both to restore that aid's legitimacy in the public eye – by improving its transparency and clarity – and to ensure that it works better in preempting agricultural market failures, with price and income instability heading the list – in order to guarantee the survival of farming as an activity – and remuneration for the public goods supplied by farmers.

The institutional debate on the added value of the Common Agricultural Policy and potential improvements to strengthen its contribution to the Europe 2020 Strategy was launched by Commissioner Ciolos on 18

November 2010. But the hardest part has yet to come. It is a matter of forging a consensus both in the European Council and in the European Parliament over the goals to pursue, the concrete actions to implement, and the financial resources to devote to them. Having said that, the debate must be conducted in the right order, as counseled by the OXFAM representative, who concludes: "I do not know whether the cost of the CAP that we want is going to be 50 billion euro or 20 billion euro. The pertinent debate today is the debate that will allow us to define the kind of policy we want, a policy whose goal is the public interest. Once that has been achieved, then we need to estimate the cost of that policy and to determine who is going to fund it."

Speech of Mrs Elena Espinosa Mangana, Minister of the Environment and Rural and Marine Affairs

Good morning,

I would first like to thank the organisers of this seminar for giving me the opportunity to launch this discussion, with just a few days left to go in the Spanish Presidency of the EU.

At the same time I would like to encourage them to launch many more such initiatives so as to be able to debate and exchange ideas on something that matters to all of us: the future of our farming sector and the Common Agricultural Policy.

The issue that concerns us is of such great interest that most of Europe's Institutions, universities and think-tanks devoted to economic issues have begun to debate alternatives or models for the CAP looking beyond 2013.

These contributions feature the positions advocated by a variety of schools of thought. To that effect, I should mention the work done by *Notre Europe*, the organisation that is co-sponsoring this event and which unveiled several months ago ideas for a reformed CAP as an alternative for the future.

I would like to stress how we in the governments of France and Spain join *Notre Europe* and the *Real Instituto Elcano* in their concern over European agriculture, as reflected in the joint statement by President Nicolas Sarkozy and our Prime Minister José Luis Rodríguez Zapatero in Paris on March 23rd. This statement highlighted the need for agriculture to be a priority in the Europe 2020 Strategy.

We are living in very interesting times in terms of this debate and ideas that are coming forth. It is our job now to make a joint effort and turn these ideas into a model that will serve to preserve our farming sector, protect our farmers and guarantee their future.

As I said earlier, with our Presidency almost concluded, I can say that from our point of view its outcome has been positive and that the perception which exists of European agriculture has consolidated around the idea that it is a strategic sector with much to contribute to Europe's future challenges.

As I imagine you already know, the slogan guiding our work during the Presidency was, in fact, this one: "Agriculture and food, a strategic sector for Europe".

And as we are fully convinced that agriculture is strategic, we have pushed for this idea to be reflected in Europe's strategy for the future, the programme known as Europe 2020.

Over the course of these past months, the Spanish Presidency has worked hard to make all EU Member State aware that it is necessary to maintain a strong CAP, and that it is a good idea to define what policy we want before launching into debate on numbers.

We must consolidate and defend the European food and agriculture model and maintain a productive farm sector throughout the EU's territory. And these goals must be the ones we keep in mind when we begin to spell out the specifics of the CAP of the future.

Under the Spanish Presidency we have continued the process that already began under previous Presidencies, and we undertook a debate that we consider to be fundamental, given the growing volatility affecting markets for agricultural products.

At the ministerial-level meeting in February, we debated what features the future CAP should have in order to adequately manage markets and, to the extent it is possible, ease their increasing volatility.

With most of our EU partners in clear agreement, we were able to reach Presidency conclusions, which were endorsed by Belgium and Hungary, the member states which, along with Spain, form the Trio of Presidencies.

These conclusions express the concern that most Member States feel over the volatility of the markets and the repercussions this has for agricultural stability.

For this reason, the conclusions stressed the need to implement new mechanisms, such as improving the competitiveness of the food and agriculture chain and strengthening the role of producer and inter-professional farming organisations that stabilise farmers' incomes and resolve quickly the serious crises that have spread through the markets.

Defending the competitiveness of the farming sector has been another of the central issues of the Spanish Presidency, from an approach that starts by defending the European production model and goes all the way to defending the competitiveness of the agro-industrial sector. Indeed, during the next meeting of EU Ministers of Agriculture, council conclusions on this issue will be approved.

On March 3rd, the Commission released the communication titled "Europe 2020 – A Strategy for Smart, Sustainable and Inclusive Growth" as a first, overall answer for emerging strengthened from the economic crisis.

In this strategy, based on what was learnt from the Lisbon Strategy, a key reference point is a new, sustainable, social and market-based economy, one that is smarter and friendlier with the environment, one in which prosperity will rely on innovation and the better use of resources and whose main driver will be knowledge.

The keys to the Europe 2020 Strategy are thematic, and the priorities they focus on are smart, sustainable and inclusive growth. However, there was barely any mention of the role that agriculture and the CAP must play if the strategy is to succeed.

We feel this is a grave omission because agriculture must be part of the EU's future challenges: it is an economic sector that is critical to the proper management of natural resources and in the fight against global warming, and it also plays a fundamental role in helping Europe to successfully overcome the economic crisis.

Once again, thanks to good, joint work by the Presidency and a large number of member states, the spring European Council meeting conclusions called attention to the fundamental role that common policies such as the CAP must play.

Specifically, the European Council said:
"All common policies, including the common agricultural policy and cohesion policy, will need to support the strategy. A sustainable, productive and competitive agricultural sector will make an important contribution to the new strategy, considering the growth and employment potential of rural areas while ensuring fair competition".

During the European Council meeting of June, our Heads of State and Government adopted the Europe 2020 Strategy and once again stressed that, as it is applied the CAP must be taken into account, along with the contribution that the European farming sector can make – a sector that is sustainable, productive and competitive – for this strategy to succeed in achieving its goals.

The Council of Agriculture Ministers has also actively participated in these debates. In fact, in its March meeting, which took place a few days after the spring summit, a debate was held – at the request of the Spanish Presidency – on the role that agriculture and the CAP must play in the new strategy "Europe 2020 – A Strategy for Smart, Sustainable and Inclusive Growth".

The result of the debate showed that agriculture is embraced by the Europe 2020 Strategy through the challenge of achieving an economy that is more environmentally friendly, through its contribution to growth and employment and its ability to provide people with food supplies that are high-quality, safe and healthy.

We cannot imagine sustainable economic growth that does not rely on agriculture, a sector that involves most EU territory (80% if one includes forests) and has an essential role in the sustainable use of resources, conservation of natural habitats, biodiversity and the fight against climate change.

In the same way, to speak of inclusive growth involves considering the substantial contribution that agriculture and the food and agriculture industry make to growth and job creation, as well as their fundamental role in the maintaining population levels and economic activity in rural communities.

Finally, the strategic nature of agriculture is enhanced by its ability to supply healthy, safe and high-quality food, rising to the challenge of feeding people.

This was also the debate we undertook in the last informal council, held a few weeks ago in Mérida.

There we reviewed the discussions we have held on the future of the CAP during earlier Presidencies and also during the Spanish Presidency, and how agriculture and the CAP can contribute to the success of the strategy.

Agriculture must be able to respond to the major challenges facing Europe, such as sustainability and the fight against global warming, and have new, additional tools that are centred around research and innovation and able to drive the competitiveness of agriculture.

This aspect – European agriculture and intelligent growth as part of Europe 2020 – was debated at length at the conference held last Tuesday in Murcia.

There, we reviewed how to integrate the CAP and agriculture into the Europe 2020 Strategy, managing and diffusing knowledge in the agricultural sector and the role of R+D+I in the challenges of sustainable and competitive growth in a "green" setting that respects the environment and helps in the fight against global warming.

We have also reviewed the role of teaching and research centres and institutions and the problems surrounding technology transfers in the farming sector. We also heard from business leaders on their views on research and innovation in the European agriculture and food sectors.

As I have said before, agriculture and food are basic to defining the new model of a sustainable economy based on intelligent and integrating growth as proposed by the Europe 2020 Strategy and which will be reflected in the distribution of resources in the next financial period 2014-20.

It is my wish that you hold a fruitful debate on how the CAP can contribute to smart, sustainable and inclusive growth.

I hope the results of this debate serve to move ahead towards defining a CAP for the future, one that satisfies the demands of farms and of society in general.

Thank you.

Elena Espinosa Mangana

Spanish Minister of the Environment and Rural and Marine Affairs

Part 1. Developing an economy based on knowledge and innovation: CAP's contribution to a smart growth

The European Commission priorities concerning agri-food research and innovation

Antonio di Giulio, *Head of Unit, Food, Health and Well-being, DG Research, European Commission*

In June 2010 the European Council adopted the Europe 2020 Strategy, which sets out a vision of Europe's social market economy for the 21st century. The new strategy is built on the EU's experience of the Lisbon Strategy and the lessons drawn from the recent financial and economic crisis. Thus, aside from helping Europe to fully overcome the financial and economic crisis, the primary objective of the Europe 2020 Strategy is to boost the EU's competitiveness, productivity, growth potential, social cohesion and economic convergence - both internally and at the international level. In this way, the strategy aims to contribute to Europe's ability to cope successfully with long-term economic and labour market challenges.

The Europe 2020 Strategy puts three mutually reinforcing priorities in place.

First, we have the *smart growth* aspect, which addresses the question of developing an economy based on knowledge and innovation. This requires among others improving the quality of our education, strengthening our research performance, promoting innovation and knowledge transfer and ensuring that innovative ideas can be turned in marketable products and services. To succeed, this must be combined with entrepreneurship, access to financing and stronger market orientation as well as improved business environment for small and medium enterprises. The second priority, *sustainable growth,* is a more complex issue as it concerns building a more resource efficient, greener and more competitive economy. This approach will help the EU, among others, to prevent the environmental degradation and to improve the water and waste management (*e.g.* in agro-food sector). Finally, the third priority, *inclusive growth*, aims at fostering a high employment economy as well as delivering economic, social and territorial cohesion.

The European Commission is putting forward seven flagship initiatives to catalyse forces under each priority theme of the strategy. One of these flagship initiatives which I would like to underscore is "Innovation Union" which is aiming at improving framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services to create growth and jobs.

The Europe 2020 Strategy calls for 3% of GDP to be invested by Member States to improve the conditions for research and development in the EU, in particular with the aim of increasing combined public and private investment levels in this sector. Still today the level of investment is below 2% in the EU and the gap between the EU and other leading economies (Japan, USA) has even increased in the last years.

Indeed, the Europe 2020 Strategy constitutes a framework for the EU to mobilise all of its instruments and policies, and for the Member States to take enhanced coordinated action in the area of research. It gives direction to all common policies, including the common agricultural policy (CAP) and the cohesion policy. A sustainable, productive and competitive agri-food sector is pivotal for achieving the above mentioned priorities. Thus, the Europe 2020 Strategy also calls for building of a sustainable bio-economy by 2020 through the launch of "European Innovation Partnerships". It should be stressed that the bio-economy concept promotes a more sustainable primary production, by encouraging the use of fewer inputs across all farming systems and trough using advanced technologies where appropriate. The objectives are to increase yields, preserve soil fertility and water, protect against diseases and pest and reduce overall environmental impact.

Currently the European Commission, with the support of the Member States is working on a new European vision for a sustainable and innovative bio-economy, which should become a Commission Communication and an Action plan in 2011. Research and development (R&D) and science-based innovation are essential prerequisites in underpinning the competitiveness and sustainability of the bio-economy while dealing with the long-term challenges. Examples of areas where we should launch flagship projects and other research activities include increasing food security, reducing environmental impact, making industry greener, providing healthy food, but also reducing food production and consumption waste, in a more sustainable way and to find innovative solutions for waste recycling.

EU research challenges for food production systems

EU funded research actions will contribute to solve major European societal challenges. If the challenge is calling for a more socially inclusive and healthy Europe our goal then will be to shift research policy to an approach

that will assist in prevention of metabolic disorders and diseases. The main challenge however is to fund and manage research projects which will provide sound answers on how to improve food production systems and make them more sustainable while at the same time monitoring the changing global scenarios of climate change, food security, population growth and finite natural resources. Furthermore, we have to deal with the specific needs of the elderly population, not only in terms of services, but also in terms of taste and preferences as well as with new dietary strategies addressing the specific needs of this population group. We also need to address in a more systemic way the problem of food security (food availability, access to food, malnutrition).

This kind of research also fulfils an important role and responds to consumer concerns about the quality and integrity of our food. It is important to stress that in all these aspects a confident, well-informed, well-educated and empowered consumer is regarded as a key to the efficient functioning of markets. However, further research will need to better explain than what we currently do, latent consumer needs. This is because consumers demand a high quality of final food product and a transparency in the food chain as the whole, from "fork to farm". The food chain needs to provide both the quality and the relevant information also. We also see today that the value of the final product is more dependent on processing and service level rather than on the commodity level. Some food experts call this a "*decommodisation process*". But the commodity is a prerequisite for an effective agri-food chain. Today, the market requires agricultural products to be provided at the requested quality, quantity and to the requested time and place. However, there is still much potential for innovative organisational solutions and for introducing modern technologies to meet the increasing market requirements. Additionally, there is also much potential for improving the overall performance of the whole food chain.

Thus, research and innovation actions are still needed with an important focus on innovation in order to ensure that the knowledge and ideas that have been generated turn into marketable products and services.

Lessons learned from EU funded Research Technology Development (RTD) projects and future actions

Knowledge based bio-economy (KBBE)

The KBBE will play a key role for the new Europe 2020 Strategy: it will provide biological solutions for the food and energy crisis, for climate change mitigation and conservation of biodiversity through its key technology, industrial biotechnology. To give some examples of KBBE projects at the input side, the European Commission supports research projects addressing plant protection, animal health; the reduction of energy, water, fertilisers, and pesticide consumption, waste as well as the development of precision farming. Due to the complexity of the topics, the EU funded projects benefit from its interdisciplinary approach (genetics, plant/animal physiology, field experiment, modelling, etc.). Projects dealing with agricultural production provide solutions on how to improve quality of raw materials and efficiency of production process, how to transfer a conventional farming to a low input one, solutions on modern crop and storage management, etc. Projects dealing specifically with the food processing provide sound knowledge on novel food products and technologies, which include how to minimise food safety risks, and how to improve quality management systems. On the consumer side, we support projects analysing food choice and eating habits in order to better understand the effect of different factors on consumer behaviour, and the effects of food choice on consumer health.

Research and technology development (RTD)

Recent RTD projects show that several factors such as prices and public policies, consumer education, and nutrition labelling but also cultural

factors, genes and emotions can have an influence on diet quality, and hence have consequences on health. The ongoing RTD projects indicate that further research in this area should investigate the relationship between the consumer choice and market performance (technology choice, production decisions). Also the communication to the consumer has become more important than ever. Consumers show a growing awareness of food quality issues and there is an increasing demand for nutrition information to consumers through education and labelling. However, the question still remains open, what is the effective information? Scientists warn that too much or too complicated information can harm. At the same time there are concerns that both the increased complexity of production technologies make it more and more difficult for consumers to make an informed choice when purchasing goods and services. The current debate around consumer labelling show that the topic is a complex one and that sound scientific basis remain a valuable tool for decision making processes.

European Research Area (ERA)

We have several processes to strengthen the European Research Area (ERA). ERA is a long term agenda for a Europe where better research coordination among EU Member states would help to reduce redundancy in research and its financing and create sufficient critical mass to deal with important cross border subjects of concern. A number of dedicated subject driven tools such as ERANETS made up of national research programme managers, and *technology platforms* made up of industrial representatives, along with the large projects networks, have pushed this agenda a great distance so far. However, despite the progress made, there is still a need to reduce fragmentation of R&D systems.

To address this aspect in particular, there are a series of initiated processes which are currently supporting cross-border research action at the level of the EU Member States such as *joint programme initiatives* (JPI), or the promotion of *private public partnerships* and various international cooperation initiatives. Regarding the JPI, the main goal is to better utilise the economies of scale & scope in R&D (*e.g*. by sharing existing research results, coordinate future work, avoid duplication). Accordingly, the JPI "A Healthy Diet for a Healthy Life", which is currently working on its vision for 2030, will provide a roadmap for harmonised and structured research activities with defined priorities to achieve certain goals in the area of food, nutrition and health. In a similar way another JPI "Agriculture, Food security and Climate change" aims at improving the effectiveness of research to secure a safe and sustainable food supply.

Building a sustainable bio-economy by 2020

In conclusion, we are trying to respond to the EU's economic, societal, environmental and technological challenges. Research and development and science-based innovation are an essential prerequisite in responding to and providing solutions to these challenges whilst at the same time increasing the EU's competitiveness. We also must strengthen the innovation chain: from ideas to the market. This will involve mobilising knowledge capability and critical mass within all segments of the research continuum and translating this knowledge into revenue-generating economic activity. The Europe 2020 Strategy provides a framework for the future actions: it gives the directions for further actions and processes within the ERA, for all common policies, including the CAP and calls for building of a sustainable bio-economy by 2020. The emphasis must now be on implementation.

The potential of agronomic research in a smart economy

Raoul Bino, *Managing Director of the Agrotechnology & Food Sciences Group of Wageningen UR*

Huub Löffler, *Director Wageningen International, Wageningen UR*

The Europe 2020 Strategy outlines the ambition of the European Union to develop as a knowledge based economy. In line with this strategy, a new common agricultural policy (CAP) must be based on knowledge and innovation. Such policy depends on the European knowledge infrastructure. In light of developments in science, economics and social structures, this infrastructure will rapidly change over the next decades. Here we address several issues – briefly and broadly – on which we could organise our research in Europe.

To reshape the CAP is above all a matter of working together. A new policy must combine agro-production, the living environment and the knowledge chain. This is not only a matter of science, this is not only a matter of policies, this is not only a matter of industry, this is a matter of all together.

Worrying perspectives for the millennium goals

We have to deal with global issues: poverty, hunger, food safety, quality, health, climate, energy, and natural resources as described in the millennium development goals. There is serious concern that we will not reach these goals. Poverty and hunger are growing issues in many parts of the world, food safety and quality are going down, many people have to live in poor health, climate and energy are controversial issues, and natural resources are in danger. How do we change these perspectives? If we want to organise a new common agricultural policy in Europe, we have to deal with these global issues, which are not only environmental and biological, but economic and social too. Furthermore, they are all interlinked.

Food security for all

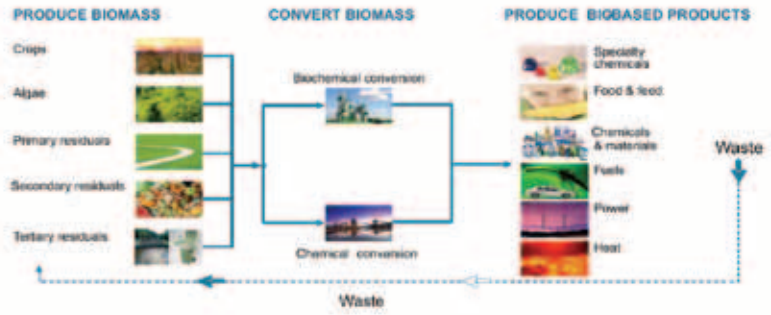
Feeding a future global population with a sufficient diet calls for considerably higher primary food production. Increasing the agricultural production area is hardly an option to tackle this challenge. The most fertile lands are already under cultivation and exploiting marginal soils demands a considerable input of scarce and valuable resources like energy, water and phosphate. Higher agricultural productivity is therefore the best option to achieve food security. Higher productivity is rooted in three major developments. Firstly, sophisticated plant and animal breeding technologies can increase the potential biomass yield of plants and animals. For example, the efficiency of feed uptake by livestock can be increased. The potential yield of plants could be increased *e.g.* by improving photosynthetic efficiency. The second intervention is to improve the quality and composition of feed which improves nutrient utilization and total production. The third important action is based on avoiding production losses. Plant diseases, destroying crops both during cultivation and after harvest, can be controlled by advanced agronomic methods. New plant varieties will be developed which are more resistant to pests and diseases. Controlling infectious diseases in animals is also of the utmost importance in preventing losses in meat and dairy production. Precision agriculture, in combination with well adapted plants and animals, will ensure a high output/input ratio. More predictive approaches are needed that allow corrective measures to be taken at a very early stage.

Life Sciences are the driver of all these developments. A thorough understanding of the functioning of genes and proteins and their interactions with external factors as well as their effects on traits, (micro-)organisms, environment and agricultural systems are of crucial importance. High-throughput facilities to collect the relevant data, and especially, the correct bioinformatics to integrate these data (systems biology) require the development of more predictive and preventive approaches in plant and animal sciences. Through higher productivity, enough food can be produced on

existing agricultural area, without jeopardizing nature or existing biodiversity. These technological solutions cannot be met through national incentives alone. Global trade in plant and animal products thrives and the EU, including the Netherlands, is a major producer and must therefore collaborate via national initiatives in larger frameworks to develop these technologies.

The Biobased Economy

The current generation of biofuels competes, with other uses of biomass, for scarce resources like water, land and nutrients. The challenge is therefore to develop new pathways for bio-energy. Exploring the potential of photosynthesis, both for higher biomass production and for the development of so-called biosolar cells. Biomass is urgently needed for biomaterials. Where several alternatives to fossil energy are available, the only alternative for fossil-based materials are those originating from biomass. Biorefinery technologies are needed to maximize the value of biomass. By carefully fractionating biomass into components with different economic values, the overall value of biomass will increase. Biomass is not used for one *or* the other application, but for both, simultaneously. High-value components may be used for special chemicals; proteins and sugars may be used for food; and the remnants are still a suitable source for energy. This option relies upon advanced technologies and carefully-controlled and inter-reliant processes and production chains. Genomics and systems biology are key to these developments. In line with the cradle-to-cradle concept, plants and plant-based systems need to be (re)designed for optimal processing.

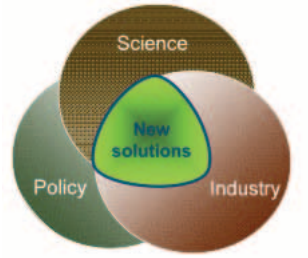


Working together, toward a new infrastructure of knowledge

Fundamental research is essential for innovation and stimulates the development of new technologies. Industrial research is essential for the translation of new technologies into products on the market. This can be applied in various strategies, while generating business for the industry and income for academic research. Quality of research and education go hand in hand. Industrial research thrives in countries with strong research institutes and an excellent education system providing the next generation of researchers. A key element is the relationship between academic and industrial research as demonstrated by the financial commitment of both private and public partners in financing public research at the major institutions for animal and plant sciences. From public figures it can be demonstrated that around 50% of the research in these institutions is acquired from competitive programmes involving quality-driven investors. This indicates the important role high quality research plays in the infrastructure of the Agro food sector. This relationship can be further intensified by synchronizing the research agenda and by stimulating the movement of researchers across from academic to industrial research

and vice versa. A better aligned research agenda is expected to result in more outsourcing of research activities from industry to academic research. Having access to top scientists, in combination with efficient research cooperation between academic research groups and industry, will stimulate international companies and will help to reform the CAP.

The Dutch agro sector operates in an entrepreneurial, research-intensive, international, dynamic, innovative and competitive environment. Research institutes, societal organizations and the government together play an agenda-setting role for scientific developments and education. This new interaction in the knowledge structure is often referred to as the public-private partnership (PPP). In this model, companies and other market partners are leading in defining the objectives of the research agenda. The research organizations contribute by developing innovative solutions for societal and economic questions. The government facilitates these innovations and drives the activities within a political, national and international context. The various parties collaborate within networks, combining the expertise needed to address the topics under concern. To date, many successful research activities are based on this new model. New, innovative collaborations between universities and private companies have been established and drive the value creation of knowledge.



Given the Europe 2020 Strategy, the EU has the ambition to develop further as a knowledge economy. This acknowledges that, for economic development, more than the traditional production factors (nature, labor and capital), knowledge is essential. The establishment of new European knowledge infrastructures based on the interrelation between Science, Industry and Policy and continued support for innovative public private partnerships will establish a fruitful base for a new CAP.

An overview of the agronomical challenges ahead

Pr. Elias Fereres, *Sustainable Farming Institute of Cordoba University*

My objective is to briefly discuss the challenges that European agriculture will be facing around 2020 and beyond to highlight some technologies to deal with them that are already in our hands or will be available in the near future.

We don't know where we will be in 2020. A few years ago, we had a completely different perspective regarding the future of world and European agriculture. We were sure that land requirements for agriculture would decrease over time because crop productivity and improvement would increase indefinitely. We were just projecting the past, which had been very successful, into the future.

Currently there is more uncertainty about where we are going. We don't know if we will be able to produce sufficient food to meet future demand. There are important risks associated with these uncertainties that need to be dealt with in a reasonable way.

Diminishing the yield gap

Above all, we face a big challenge of producing sufficient healthy and nutritious food for Europe and for the world in a sustainable way. The central issues are food security and safety in face of the global change that is taking place, namely climate change. We need to work to improve the sustainability of current agricultural and food systems, to make them last longer, while maintaining a certain level of production.

The first challenge is producing sufficient food. Food demand is going to increase in the next decades. In agronomy, the "yield gap" is the gap between the maximum potential production that a farmer could achieve under ideal conditions without water and nutrient limitations, simply given the climate where his farm is, and the production the farmer actually obtains in light of such limitations which include pests as well as others in addition to physical ones. This yield gap is quite substantial by world standards: the average yield in the world is around 3 tonnes whereas the maximum potential is around 15 tonnes. Of course, in Europe, current yields are much higher than the world average. Yet as we close this gap by improving our technologies and management (as we have done in Europe during the last 30-40 years), it becomes increasingly difficult for our best farmers to get closer to the potential.

Research on benchmarking shows that current yields of different ecosystems, from China, the Mediterranean basin, etc., are well below the potential. Not only in developing countries but also in highly technological ones, e.g. the case of tomato growing in California. You can see that the level of production does not depend on new irrigation technology. There is such variation among the actual production of advanced farmers that we cannot really explain it.

In Europe, meeting the full demands of the sector will be achieved by getting closer and closer to the potential yield. There are substantial opportunities in Eastern Europe to achieve this goal, as the yield gap is greater than in Western Europe. At the same time, we are trying to reduce environmental impacts of agriculture and to limit our greenhouse gas emissions. We still do not know how to achieve this. We know that the approach will be through what we call sustainable and ecological intensification, which means trying to achieve high productivity while maintaining the resource base. This includes the human dimension as well for we are losing farmers by the hour. In this year of biodiversity, the European farmer is an endangered species risking extinction.

A new demand on food systems: producing energy

Another challenge we must face realistically is that we wish to produce energy as well as food. First, many proposals have been made regarding "magic crops" in agronomy. This started in the 1970s with the first energy crisis and continued in the second crisis. Most "magic crops" do not live up to the claims, including the last one, "Jatropha" which certainly is not providing a better alternative to the existing crop options. One major problem that agriculture has for producing energy is the price volatilities in the energy crisis which are very difficult to cope with. Secondly, there is competition for land between food and energy. We already do not know if we can produce sufficient food given land resources that we have. Also, much of the potential depends on future projections which are very uncertain. As most scenarios are highly speculative, we really don't know if we can reach the goal of producing energy from crops. There is a potential alternative involving ligno-cellulosic materials which are called "second generation' biofuels. However, new forms of conservation agriculture require the use of residues for soil protection. Thus, even crop residues may not be freely available for energy use.

Uncertainties of climate change on agriculture

We know that the earth is getting warmer and the global simulation models give us some predictions with a range of variations. However, regional models are not yet sufficiently accurate to tell us what is going to happen in the future regarding agricultural productivity. The truth is that what these models tell us is that we really do not know how climate change will affect our agriculture. We know that the higher CO_2 has increased crop productivity by around 10 percent since the beginning of the industrial revolution. The key is to adapt to the changes that will take place, and agriculture has a successful past history of adaptation to physical environments.

Turning to the threat in terms of increasing emissions, I would like to point out that agriculture is basically a neutral sector at present, if you do not count the energy inputs required for nutrient and other inputs. This can be seen in a recent study of the European carbon balance. Mitigation depends basically on managing the land and other resources. We already have been dealing with climatic variability in some fashion. We have to face uncertainty in terms of variability, and possibly more in the future. We may have other problems, like water management associated with more variability in precipitation.

Technical solutions to cope with 2020 challenges

Conservation agriculture is a form of agriculture that has been recently adopted in many agricultural systems, like in North and South America. It has now being introduced into European agriculture and consists in using crop residues to protect the soil and enhance its organic matter content. It has many benefits but it needs to be adapted to European conditions, where it may not suit all systems – this means more research and development.

There have been a number of promising technologies from the 80s such as the use of satellite imagery for agricultural management. The idea is to assess the performance of individual fields, evaluate their productivity and therefore benchmark potential. We are going into what is called precision agriculture, which means that we are able to map a field and characterize yield variations among areas. We already have the machinery and technology to do this. We have also the technologies to apply different amounts of water, fertilisers or pesticides to different parts of the field. We're going to deal with variations within a unit that was managed uniformly until now.

The key issue is that most of the time, we do not know the causes for the yield variations. We cannot correct the problems unless we know the

various causes behind them. Nevertheless, this is also a very promising technology that will improve our productivity in the future.

The debate in Europe is completely wrong concerning the contribution from biotechnologies. It is very interesting that in the field of health there is no controversy about the use of biotechnology but when it comes to food, it becomes controversial. But what is important to know is that the present generation of biotech crops is mostly directed at reducing production costs by reducing pesticide use and not at increasing yields. By 2020, there will not be another generation of biotech crops that will increase yields drastically. Increasing yields is much more difficult to achieve than introducing biological insecticides or herbicide tolerance, which is the basis for the current success of biotech crops. We cannot expect in the short term a major change in productivity coming from biotechnology. Biotech crops reduce pesticide use, which is positive for the environment and reduce production costs, which will be positive for the farmers. Hopefully, European society will deal with this issue in a rational way in the near future. Nevertheless, it is important to indicate that the contribution of biotechnology to increasing yield potential will not be significant in the short or even medium term.

European research synergy to tackle the problems

We need more research. There is a Programme initiative under development bringing together 20 countries in Europe (led by France and the United Kingdom). The concept is to develop a new programme to be launched next year that will be called "FACCE JPI", centred on agriculture, food security and climate change. The idea is to put together the resources of different countries to tackle the problems related to food security and climate change, beyond our national perspectives.

To finalize, I will stress the uncertainty concerning the future. And if we do not know, we better find out. We need to invest more in selective - and I insist on the word selective – research, development, and innovation in the agriculture/food sector. We will get big pay-offs. I would like to remind you that agricultural research has in the past been the best public sector business in the world – with rates of return of about 50 to 100%, only surpassed by much less transparent activities.

Part 2. Promoting a more resource efficient, greener and more competitive economy: CAP's contribution to a sustainable growth

Past, present and perspectives of environmental legislation in the CAP

Tamsin Cooper, *Joint Head of Agriculture and Rural Development Programme, Institute for European Environmental Policy*

I will examine the extent to which the prevailing direction of the Common Agricultural Policy (CAP) reform is compatible with the overarching objectives of the Europe 2020 Strategy and its aims to promote smart, sustainable and inclusive growth.

I begin by charting the evolution of sustainable growth as an EU policy objective. In 1988, the EU Heads of State and Government signed a "Declaration on the Environment" in which it is stated that sustainable development must be one of the overriding objectives of all Community policies. The 1988 Declaration identified the need for solutions to environmental problems "in the interests of sustained growth and a better quality of life". Two years later, at the Rome Summit, a commitment was made to environmental protection in order to ensure sustainable growth. The

Maastricht Treaty, which gave legal force to the principle of environmental integration, was signed in 1992, and promoted "sustainable and non-inflationary growth respecting the environment". In 2000, the Lisbon Strategy was launched, closely followed by the EU Sustainable Development Strategy, revised in 2006. Finally, with the adoption of the Europe 2020 Strategy at the European Council on 17 June, the commitment to a sustainable model of economic growth is at the heart of the EU's strategic priorities. The trajectory of CAP reform broadly reflects a similar set of policy priorities and objectives with the introduction of the first mandatory environmental measure – the agri-environment measure – in 1992, followed by the introduction of the Rural Development Regulation as part of the Agenda 2000 reforms and latterly Council Regulation 1698/2005, which contains a suite of measures to protect the environment and countryside.

Sustainable Growth – Evolution of a Strategic Priority

1988	**Declaration on the Environment, signed by EU Heads of State** • "Sustainable development must be one of the overriding objectives of all Community policies" • Identities the need for solutions to environmental problems "in the interest of *sustained growth* and a better quality of life"
1990	**Rome summit** • Commitment made to envronmental protaction in order to ensure *sustainable growth*
1992	**Maastricht Treaty of the European Union** • Gives local force to the integration principle • Promotes "sustainable and non inflationary growth respecting the environment" (article 2).
2000	**Lisbon Strategy fot Growth and Jobs**
2001	**EU sustainble Development Strategy (revised in 2006)**
2010	**EU 2020 Strategy**

The Europe 2020 Strategy sets out a vision for Europe's social market economy for the 21st century. It provides a strategic framework to turn the EU into a "smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion." The Europe 2020 Strategy defines sustainable growth as "building a resource efficient, sustainable and competitive economy".

A priority for the Spanish Presidency has been to frame the debate about the rationale and objectives of a post-2013 CAP within the context of the goals of the Europe 2020 Strategy. To this end, it published a Presidency note entitled "Agriculture and reform of the CAP in the perspective of the Europe 2020 Strategy" to prompt debate at an informal meeting of Agricultural Ministers in June 2010. It sets out the contribution the agricultural sector can make to sustainable growth: "Maintaining agricultural activity throughout the EU territory plays a key role in the sustainable use of resources, job creation, and helping to meet the food challenge, while bringing public benefits to the environment such as the preserving of habitats, biodiversity and attractive rural areas. However, sustainable growth cannot be achieved unless the relevant social, environmental and economic aspects are tackled together..."

This interpretation of sustainable growth is very much in line with the concept of a European model of agriculture which, alongside the production of food and fuel, delivers a wide range of non-marketable benefits to society. There is a clear recognition that economic growth should be sustainable in social and environmental terms. Thirdly, it is perhaps important to recognise that maintaining agricultural activity *per se* does not play a key role in the sustainable use of resources. As measured in state of the environment indicators, certain forms of agricultural activity have a damaging environmental impact and therefore not all forms of agricultural activity will contribute to a sustainable growth model.

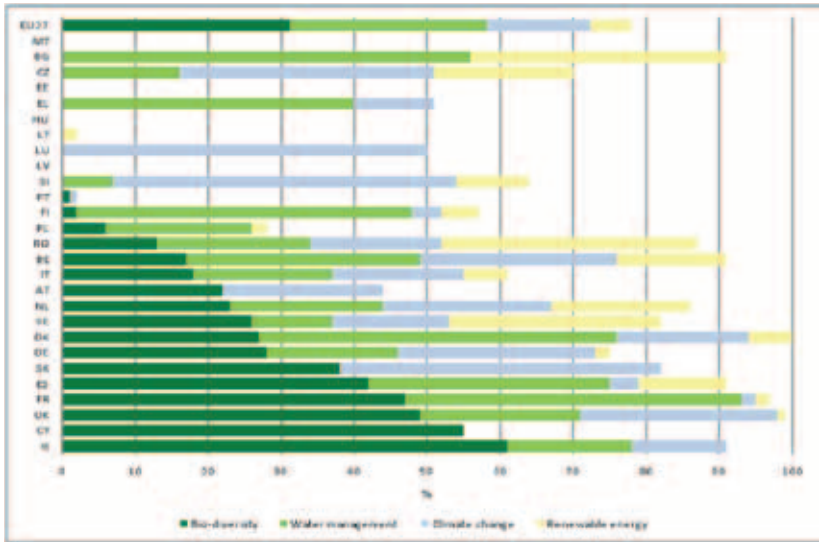
The EU's agricultural sector is responsive to a whole set of competing drivers and priorities - the challenge of delivering sufficient food, greater market integration, long term trends in commodity prices, adapting to the impacts of climate change - and the restructuring trajectories of different farming systems will vary in different parts of the EU. Indeed, the activities that make up a sustainable growth model will be very different in extensive farming systems, compared to those in more intensive systems.

Evidence suggests that extensive farming systems typically provide society with a wide range of environmental benefits, and are critical for the maintenance of Europe's farmland biodiversity. However, many of these systems are economically unviable, highly dependent on public subsidy, and threatened by low levels of succession resulting in the decline of cohesive rural communities and associated customs and traditions. The sustainability challenge with respect to these types of farming systems is to promote and facilitate forms of structural change which improve the welfare of farmers and the economic viability of farm businesses, whilst ensuring that environmental benefits continue to be provided. In more intensive farming systems, sustainable growth implies the adoption of specific farming practices which reduce the environmental impact whilst at the same time provide society with the volumes of food that are required now and in the future. Research and development in support of technological innovations has a key role to play in advancing the sustainable production agenda.

At the informal Agriculture Council meeting in June 2010, there was apparent consensus over agriculture's contribution to the objectives of the Europe 2020 Strategy, although there was less agreement about the CAP's role in supporting a sustainable model of growth. Several CAP measures currently support the sustainable growth of EU agriculture, including increasing the competitiveness of agriculture, supporting the delivery of environmental and social public goods, increasing the efficiency of resource use and promoting sustainable land management, reducing greenhouse gas emissions, promoting investment in and the adoption of green technology, and investment in the development of skills and training.

Starting with the CAP's role in supporting the delivery of environmental goods and services, there is a cluster of measures within the recent Rural Development Regulation that are targeted at improving the environment and the countryside. These focus predominantly on maintaining and enhancing biodiversity, cultural landscapes, and improvements to soil and water quality. Climate is a new and emerging priority, not often formally expressed as yet, although many actions already incentivised under other priorities are relevant. The three main measures with an explicit environmental objective – Agri-Environment, Natural Handicap Payments and the Natura 2000 measure – account for almost 40% of total planned public expenditure on rural development for the period 2007 – 2013, although this share varies significantly by Member State. An analysis of the use of additional funds by Member States made available through the CAP Health Check and the European Economic Recovery Plan, for example, indicate very different environmental priorities and wide variations in the allocation of funding towards the "new challenges' of biodiversity, water management, climate change and renewable energy.

Use of additional funds made available through the CAP Health Check and the European Economic Recovery Plan



The impacts of these measures are not exclusively environmental. There is a growing body of evidence from across the EU – particularly in the UK and in Italy – of the first and second order social and economic benefits that are generated from expenditure under these measures in the form of economic and employment effects, as well as the value to the local economy arising from the natural assets themselves, resulting from increased levels of tourism, recreation and inward investment. Achieving win-win outcomes of this nature is a central characteristic of a model of sustainable growth.

Turning to resource efficiency, there is a suite of rural development measures which promote the efficient use of natural resources. Some of these have an explicit environmental objective, whereas others are capital investment measures, mainly found in Axis 1 of the European Agricultural Fund for Rural Development (EAFRD). These include measures such as farm modernisation, infrastructure development, adding value to products, semi-subsistence farming, non-productive investments, and the conservation and upgrading of the rural heritage. On average, across the EU-27 as a whole, these measures account for 25% of total planned public expenditure for rural development for the period 2007 – 2013.

At the present time, the environment is not a core objective of these measures, however, in some Member States, certain of them are being used to encourage the delivery of environmental outcomes, through improvements to water quality and availability, soil functionality and reductions in greenhouse gas emissions, for example. In future, these capital investments could be designed in such a way as to support the environmentally-sensitive restructuring of the farming sector. To provide two case study examples of the ways in which rural development funds are being used to support complementary environmental and economic objectives: in France, under the "Plan végétal pour l'environnement", grants are provided to farmers for investments in precision farming equipment with the aim of reducing pollution from pesticides and fertilisers, reducing soil erosion, reducing pressure on water resources and improving energy efficiency. This scheme has proved very popular. In Northern Ireland, rural development funds have been used to invest in new technology at the "Fivemiletown Creamery" to make better use of waste products alongside improving the efficiency and profitability of the business.

Selected CAP measures support the maintenance of "rural vitality", a central concept in the discussions on the rationale for a post-2013 CAP. These fall mainly under Axis 3 of EAFRD and under LEADER, and include measures supporting the conservation and upgrading of the rural heritage, tourism activities, village renewal and diversification. On average, across the EU-27 as a whole, these measures account for 15 - 20% of total planned public expenditure for rural development for the period 2007 – 2013. The final set of measures relevant to the promotion of sustainable growth in Europe's agriculture sector includes the advice, training and capacity

measures. There is widespread evidence to suggest that these measures are critical for improving the effectiveness of selected measures and for securing positive and enduring environmental outcomes.

Conclusions

As we look forward towards a post 2013 CAP, it is clear that selected elements of the existing policy have the potential to steer Europe's agricultural sector along a pathway of sustainable growth. In order to do this in the most effective and efficient way, a coherent set of policy objectives is critical, along with sufficient budgetary resources to achieve them. A strong evidence based on the scale of the costs in meeting the objectives is essential as we enter the debate on the 2014 – 2020 Multiannual Financial Framework, coupled with a discussion on how we price the non-marketable environmental and social goods and services that farmers provide. As for the contribution of the CAP to the Europe 2020 Strategy, it is important that a future CAP is responsive to the EU's broader social, environmental and cohesion agenda.

Proposals for an intensive agriculture which can meet production and sustainability challenges

Jean-François Gleizes, *Cereal producer and President of Passion Céréales*

Nicolas Ferenczi, *AGPB's Economy and International Affairs Manager*

The two primary objectives of the Common Agricultural Policy (CAP)

The CAP must first guarantee European food security and help to ensure that of the world. It must enable Europe to produce most of its food needs – those of 500 million consumers – by allowing farmers to supply the market. In an increasingly volatile price environment, this also implies assuring farmers income is sufficient for them to live on, which means limiting, to a certain extent, the volatility of agricultural and food prices. Lastly, food security is predicated upon food quality, which is an increasingly important requirement for EU citizens.

At the same time, the CAP must meet the social demand for sustainability. The CAP thus has to promote the fight against global warming, efforts to improve air and water quality and to protect biodiversity and rural landscapes and territories. It is also critical to reduce European dependency and the exploitation of non-renewable resources, such as hydrocarbons.

World agriculture's productive challenge

World agriculture is bound to experience a strong surge in food demand, considering the human population growth expected by 2020 (+12%) and that of 2.3 billion by 2050 (34%). Combined with an increase in per-household consumption, food demand should grow dramatically. The Food and Agricultural Policy Research Institute (FAPRI) estimates that this increase will have a particularly heavy impact on the cereal sector: from 2008 to

2018, it will therefore be necessary to produce 224 million additional tonnes per year, an increase of 14%.

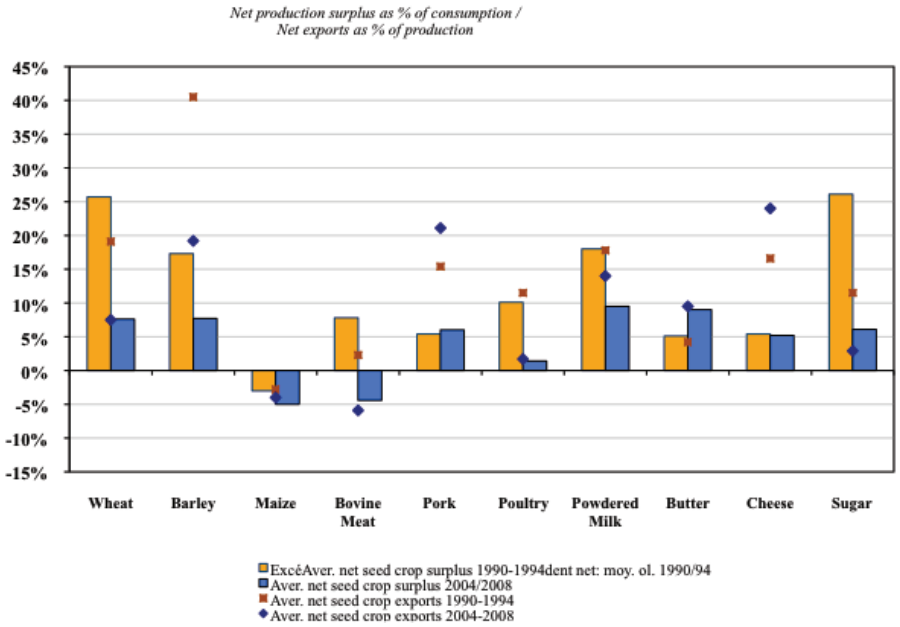
This prospect makes it imperative to boost the developing countries' cereal production. More than 82% of the globe's additional demand for cereals must therefore be supplied by local production. Yet many countries are, and will remain, importing nations. For example, African and Middle Eastern grain imports should increase by 60% within the next decade. Meeting this demand calls for more accountability on the part of surplus countries, some of which are members of the EU. This desired increase in production will need to be derived mainly from an improvement in yields, since farm extensification is limited and very unfavourable to the environment (greenhouse gases, biodiversity).

The CAP: An important component of Europe's productive potential

Although the CAP has been strongly criticised in the past, it has regained international legitimacy because, generally speaking, it no longer has a depressive effect on world markets. The EU is the world's largest importer and second-largest exporter, as well as the world's largest net importer of agricultural products – for a total value of USD 60 billion – and this amount rises yearly. Moreover, in the past several years, the EU has no longer been devoting significant subsidies to its agricultural exports. To the contrary, when prices are low, the CAP helps to support them thanks to public purchases, a practice which will hopefully be maintained within the next CAP.

CAP reform has led to a stagnation in European agricultural production as a result of three factors: first, the drop in internal prices and export refunds triggered an import boom; next the decoupling of aids limited production incentives; lastly, technological and regulatory changes caused yields to stagnate. The following chart shows that large production surpluses have fallen considerably and thus do not herald well for the future, inasmuch as pursuing this trend would place the EU in a high deficit position.

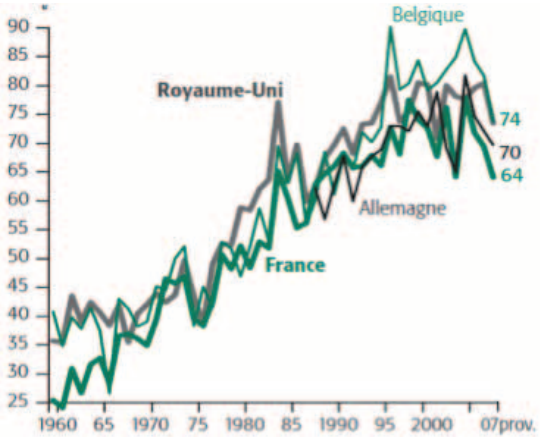
Impact of CAP reforms on net production surpluses within the EU



Source: European Commission, DG AGRI

Using common wheat as an example in analysing its average annual yield trends in four European countries (see Chart 2), it can be seen that after a strong growth stimulated by innovation, annual yields have stagnated since 1995.

Common wheat's average annual yield trends in 4 European countries (quantities/ha between 1960 and 2007)



Source: Eurostat

Multiple factors account for this stagnation: the primary one is undoubtedly the weather. Hydric stresses (droughts) and thermal dehydration (excessively high temperatures) have become more and more frequent in the springtime since 1995 and therefore need to be taken into account, including in research programmes; then there is the increased resistance to fungicides and their scarcer use; next, the potential impact of genetics continues to grow but the clash between quality and yield requirements is a capping factor, while seed selection criteria do not take climate change sufficiently into account. Lastly, increasing input costs in a period of low prices and toughening regulations (phytosanitary, nitrates directive, etc.) have probably played a part in this stagnation.

Sustainable productivity

The second-biggest challenge after production is sustainable productivity. This challenge can be successfully overcome by improving productivity through innovation, not by moving towards extensification schemes, knowing that cultivable land is increasingly limited. Obviously, intensive methods produce more food, more energy and more environmental damage per farmed hectare. On the other hand, in terms of unit of energy produced (or of humans fed), things are noticeably different: it is often the methods most productive per hectare which consume the least amount of oil and produce the lowest greenhouse gas emissions. Furthermore, the environmental benefits can increase along with productivity. Just as carbon sequestration in the soil increases along with yields and also favoured by the incorporation of straw residues, simplified tillage practices and a winter soil cover application. Lastly, intensive farming can become more efficient in its use of inputs thanks to precision farming technology, for example (GPS, etc.).

Finally, returning to agronomy is essential. Farmers need techniques to evolve, using crop rotation, for example, to more effectively control weeds, or learning mechanical weed control techniques. Agronomy must also be made more accessible to farmers: developing local networks could promote local solutions. Basic research and applied research would benefit from being conducted in tandem so as to improve synergies.

A CAP which promotes an intensive, productive and environmentally friendly agriculture

The new CAP needs to keep both European and private regulatory instruments

The aim of European instruments should be to limit price volatility and to be supplemented by several to-be-formulated private instruments designed to cushion volatility. For example, it would help to induce farmers

to engage in precautionary saving to stabilise their income. Agricultural insurances which cover only insurable risks, not prices, should be offered without subsidies and taken out on a voluntary basis.

Direct, strong and homogeneous aids
The best insurance producers have against volatility is a high and stable level of direct aids. The availability of strong and homogeneous aids therefore remains a prerequisite beyond any budgetary debate.

Developing a sustainable agriculture
Hopefully, under the new CAP, sustainable development will be expressed through the shared objective of ensuring citizen security, providing farmer incentives, and promoting innovation.

The conditionality of the first pillar must be maintained, but also reunited at the European level so that each Member State respond to the same constraints in its own way.

The second pillar urgently calls for making available adequate financing, as well as specific environmental service contracts not yet formulated which would be open to all, remunerated regardless of costs and based upon objective indicators.

In conclusion, Europeans should urgently revisit the CAP's added value facing European agriculture's dual productive and environmental challenges. Indeed this policy is essential to the economy and employment, but also to sustain land use and management.

Towards a European rural policy

Gonzalo Fanjul Suàrez, Senior Strategic advisor, *OXFAM international*

Reflecting on the future of the Common Agricultural Policy (CAP) involves considering the impact of the planned reform on African and Latin American developing countries. In the past, these countries were deeply affected by the CAP's negative effects on their economies and they still are. The problems caused by the CAP have changed in the last few decades, but some pitfalls have persisted. The contemplated CAP reform is on the wrong track in terms of the Policy's contribution to the development of poor countries.

Two CAP internal problems need to be resolved

CAP reform is not budgetary in nature. I do not know whether the cost of the desired CAP is EUR 50 billion or EUR 20 billion. Today's relevant debate is one which will allow us to define what policy we want – the one whose aim is to serve the public interest. The next step will be to estimate this policy's cost and determine who will fund it. However, there is a strong possibility that we will reach the year 2013 without having really debated the policies we want, and that we will remain undecided because of excess inertia.

There is a fundamental issue with regard to producer price-setting on agri-food markets which particularly affects small EU producers due to the strong concentration in the distribution and processing sectors. Such concentration acts on the price-setting mechanism in a way that is disadvantageous to producers.

Striving for an equitable agricultural policy which is fair to poor countries

Officials from Ministries of Agriculture and the European Commission catch my attention when they talk about the competitiveness of European agriculture and markets. Indeed, when aids totalling several billion dollars annually are allocated to European farmers, it is no longer a competitiveness issue. Competitiveness needs to be evaluated in the context of competition with Brazilian cereals or Mozambique sugar, on equal terms.

Oxfam is in favour of an agricultural policy which will meet the commitments and obligations that the EU has undertaken concerning the development of poor countries. This implies a major reform of EU aids, inasmuch as the latter currently allow the Union to export below production prices. In addition, EU protectionism is evident in the unfair use of sanitary standards. The EU must respect the right of poor countries to do what the EU considers so important for itself: to protect its public interest by using customs mechanisms and quotas (which is now prohibited in most of the agreements proposed by the EU, as, for example, in the new Economic Partnership Agreement with the ACP countries). This is directly linked to the extraordinarily complex volatility issue. A less complex option, on the other hand, would be to analyse the instruments which the States can use to deal with this volatility.

Lastly, contrary to what is often argued in defence of the CAP, I do not believe that the EU has to feed the world, for such is not its responsibility. Food shortage problems are first and foremost accessibility and production problems. Shortfalls in food production are particularly evident in Sub-Saharan Africa, where a genuine ecological revolution is called for. Unlike the green revolution which has occurred in Asian countries, this ecological revolution would aim to increase productivity, to improve the use of resources and to transfer technology and innovation in such a way that Africa could produce the food which it needs. It is neither the EU's nor the United States' responsibility to feed Africa, as they have been doing for 40 years, notably through the United Nations World Food Programme.

Unjustified food sovereignty

Is Europe entitled to self-sufficiency, i.e., to so-called "food sovereignty"? My answer is "no." To begin with, should Europe decide to produce its own food, it would mean, for example, that it could not expect Brazil to liberalise its industries, or India to liberalise its services. Thus Europe, unlike many poor countries, has the capacity to buy a portion of the food that it needs. Inasmuch as its resources do allow it to buy some of its food, any decision aimed at enabling Europe to produce and eat what it produces would have consequences for third countries and the latter would have to be compensated for the prejudices incurred. This debate cannot, however, take place exclusively within the EU, for there are global stakes involved: by 2030, when the world's population will be nine billion, we will need to have increased our production by 50% and have lowered our carbon emissions by 90%. At present, there are no concrete answers to the debate on world food production and the means to supply our regional markets.

A necessary revolution: Replacing the CAP with a European rural policy and remunerating public goods

First of all, we need to stop using the term "CAP" because we need a European rural policy which does not exist and has yet to be defined. A rural policy is truly needed. Indeed, farmers living in a rural environment supply our societies with public goods which the market does not remunerate. No one can deny the need for State intervention to ensure the production of goods not remunerated by the markets. The State needs to intervene on the market in exchange for guarantees concerning public goods, which is not currently the case. We are therefore advocating a generously funded European rural policy, one that is well-defined and thoughtfully debated,

and which serves the public interest and not deeply rooted privileges. That will make the CAP seem more legitimate in the eyes of citizens than it is now.

The post-2013 CAP budget may be reduced. If this assumption proves accurate, the reform would inevitably revolve around budget reduction and not the policy's content. That would be a futile debate. But I am convinced that the reform will change nothing in the basic structure of acquired privileges and that, in 2014, we will regret having lost yet another opportunity to reform the CAP.

Part 3. Fostering a high-employment economy delivering social and territorial cohesion: CAP's contribution to an inclusive growth

The CAP's Contribution to the Collective Welfare: A Complex Assessment

Alexandre Gohin, *Economist and Senior Researcher at INRA[1] Rennes*

In view of the lively and frequent debate over the need for an agricultural policy, any discussion of the CAP calls for an introductory remark. Economic theory clearly spells out the grounds for public intervention: the latter is necessary in the event of market failures. Three forms appear on agricultural markets: the existence of public goods and the presence of external effects (externalities), a market power which enables some actors to manipulate prices, and the presence of unforeseen events against which economic actors cannot protect themselves because the corresponding markets do not exist.

Initially, the CAP had been formulated in part to counteract these market failures. It primarily reflected the States' desire to ensure self-supply, since decision-makers then considered food dependency to be a potential

1 French National Institute for Agricultural Research

source of disaster. But rather than remaining a policy aimed at correcting market failures, the CAP soon evolved into an agricultural income support policy generating costly and distorting surpluses. Thus for almost twenty years reforms have been implemented to correct the CAP's excesses; *i.e.* the policy's shortcomings.

Public debate arguments for an overhaul of the CAP

According to detractors of the present CAP, twenty years of reform have proved insufficiency and the CAP's transformation should continue for the following reasons:

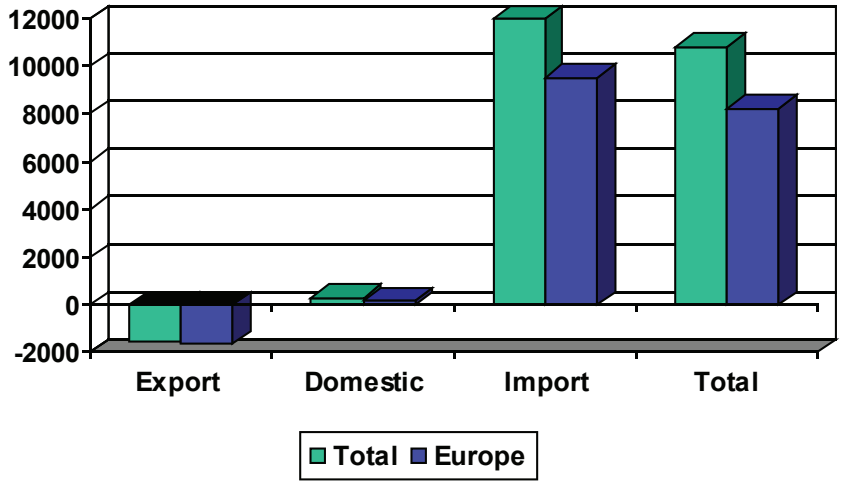
- The CAP is still having an overall negative impact on third country farmers;
- It is inadequate inasmuch as farmers' earnings are still less than the cost to consumers and taxpayers; it is therefore having a negative impact in terms of employment;
- It is inequitable because the public support distribution is based upon historic references;
- It does not adequately promote positive externalities and inadequately penalizes negative externalities;
- It is not necessary to stabilize markets and agricultural income, considering the large number of private sector risk management tools available;
- Lastly, it is less effective than a food policy in managing product quality and health safety aspects.

Is the CAP creating major distortions in the global markets?

In the last few years, numerous assessments have been carried out to measure the impact that eliminating agricultural policies would have on developing countries. They generally show that the CAP is having considerably more negative impacts upon developing country agricultures and economies than the policies pursued in the United States and in Japan. This can be primarily attributed to the importing instruments used by the European Union, as shown by the following results obtained by the OECD and the World Bank.

Graph 1. Gains realized by eliminating North agricultural policies for developing countries

(in millions of dollars - 2001)

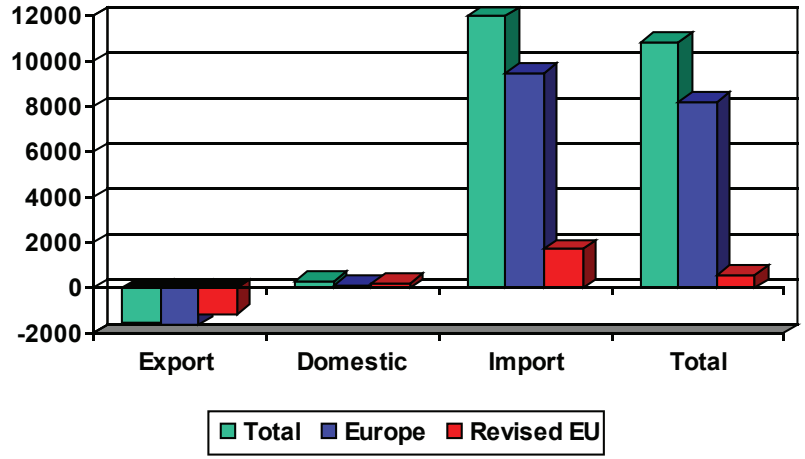


Source: Féménia and Gohin, INRA

It appears, however, that the tools used to measure the impact of the CAP do not adequately take into account the policy's complexity, particularly with respect to its production quotas, preferential arrangements, direct support systems restricting land or livestock sizes, etc. Such instruments nonetheless exert a constraint on European agriculture in terms of quantities produced, which should be considered in assessing its impact. We have therefore supplemented this research with a clearer representation of

the CAP's instruments and have produced new simulations of this policy's impact which show a marked reduction of its effects, as seen by the red bars in our graphs.

Graph 2. REVISED gains the elimination of the CAP would produce for developing countries (in millions of dollars - 2001)



Source: Féménia and Gohin, INRA

This means that the CAP obviously does not yet play a totally neutral role in the global markets. However, thanks to the reforms implemented over the last twenty years or so, the situation has vastly improved.

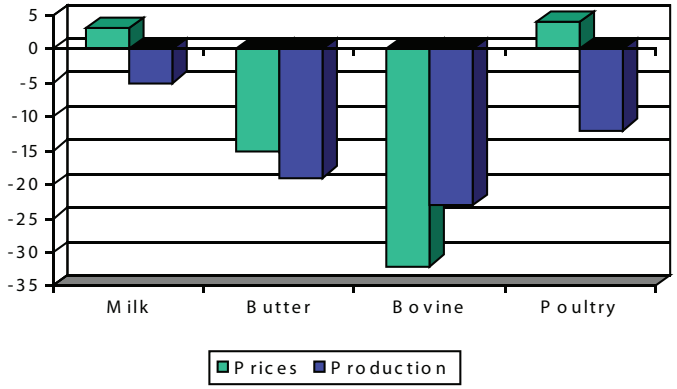
Is the CAP really that ineffective from a domestic point of view?

With respect to the second criticism concerning the CAP's ineffectiveness, estimates made in the 1980s and in the early 1990s showed that eliminating the CAP would have resulted in an approximate 3% GDP growth rate inside the EU, and produced similar employment gains. What would the results be today?

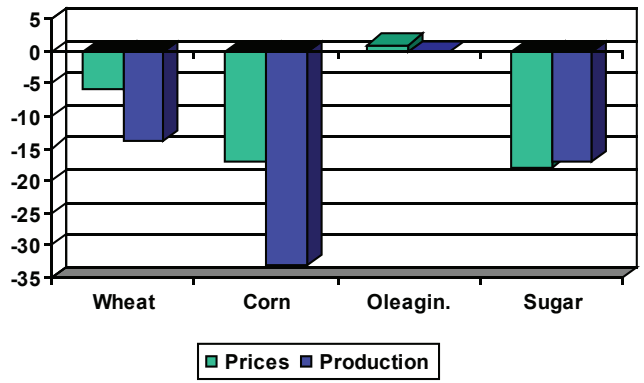
To assess the impact an elimination of the CAP would have on the economy, we must first grasp what the impact would be on field crop prices and production levels. The graph below indicates that it would mainly affect the corn sector, so we need to look into the reasons for this sector's lack of competitiveness. Is it related to the fact that factor or technology endowments differ from those used by competing countries? Similarly, analysis of the elimination of the CAP in the animal markets indicates that the bovine sector, and more specifically suckling-cow production, would be particularly affected. In order to be comprehensive, the assessment of such an elimination must be examined in terms of the role played by this industry in the development of certain territories.

Graphs 3 and 4: The impact an elimination of the CAP would have on European prices and production in 2015 (impacts in %)

By field crop



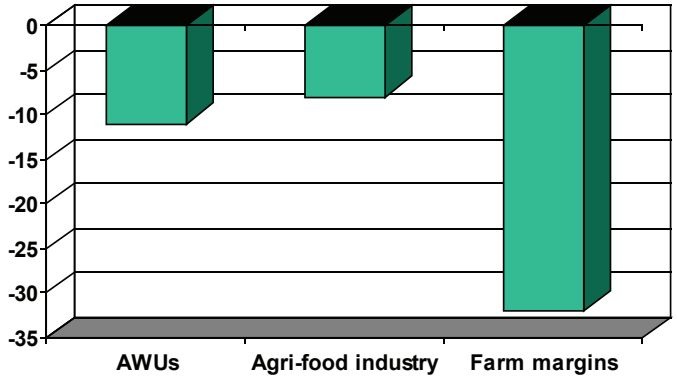
By animal sector



Source: A. Gohin, INRA

Overall, eliminating the CAP would result in a sharp drop in agricultural employment of up to 11% and in an even more significant decrease in agricultural income of more than 30%, as indicated by the last bar in Graph 5.

Graph 5. The impact an elimination of the CAP in 2015 would have on farm jobs (Agricultural Work Units - AWU), agri-food industry jobs, and farm margins (impacts in %)

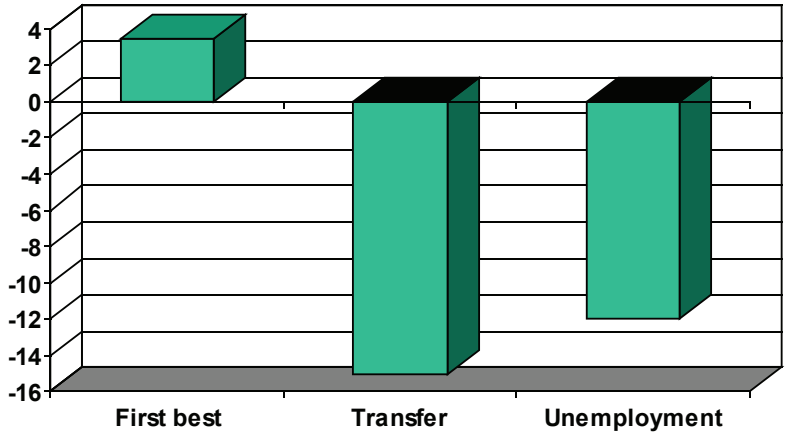


Source: A. Gohin, INRA

What would be the macro-economic implications of eliminating the CAP?

As is the case in many other assessments, our reasoning initially did not take into consideration the many market failures which may exist. In the so-called "first best world" case, the implicit hypothesis is that farmers leaving the sector have opportunities to find jobs elsewhere and that price transfers are perfect throughout the food chain. In such a framework, the market's welfare – a measure similar to the GDP – increases by just over EUR 3 billion (scarcely 0.05% of the GDP), which is very slight. This gain is therefore considerably lower than estimates made prior to the reforms, which means that eliminating the CAP would result in a better allocation of existing resources.

Graph 6. Impact of eliminating the CAP on welfare (in billions of euros)



Source: A. Gohin, INRA

The other two bars show that these macro-economic gain estimates should be considered with some caution. Indeed, if we consider the possibility that the downstream sectors (food processing and distribution) may not fully pass onto consumers the price drop experienced by farmers in the absence of any agricultural policy, we obtain a significant loss of such welfare or GDP. The hypothetical imperfect price reduction transfer represented by the second bar is far from unrealistic. As shown by the European Commission's conclusions with regard to the recent "milk crisis," although dairy product prices increased along with milk prices, consumer prices for dairy products did not decrease despite the drop in consumer milk prices. Similarly, if we assume that job opportunities are limited due to involuntary unemployment, here too, the macro-economic impact can be reversed (third bar in Graph 6).

These assumptions lead to two conclusions. First, although the CAP's much-criticised ineffectiveness is a reality, it remains quite limited. Next, this ineffectiveness in terms of supports also depends upon the capacity of the States to promote competition at all sector levels, as well as to spearhead economic growth. This analysis does not, however, call for a status quo in terms of an agricultural policy, but rather for European agriculture and its policy to be repositioned within a highly complex global context.

For more information:

Féménia F., Gohin A. (2009). "On the European responsibility in the agricultural multilateral trade negotiations: Modelling the impacts of the Common Agricultural Policy," *World Economy,* 32(10), pp. 1434–1460.

Gohin A. (2009), "Quelles conséquences d'une suppression de la Politique Agricole Commune pour l'après 2013?" *Revue d'Economie Politique,* 119(4), pp. 633–651.

Proposals to reform the CAP by livestock agriculture; a sector which help meeting labour challenge

Emmanuel Coste, *Breeder Representative of COPA-COGECA's sheep and goats sector*

An unthinkable return to national agricultural policies

The CAP's relevance is linked to the EU's development. A background review is vital in order to retrace and understand the course that we have taken before we can consider the future. As a cattle and sheep farmer, I have experienced every phase of the CAP for many years and we have met a number of challenges. The first was the single market. Before that, every Member State was a citadel: each market was tied to a law and to a certain production method. The CAP introduced the single market, which gave all of us in our profession a means to compare our respective results and to draw conclusions in terms of production and marketing. It endowed us with objective criteria for assessing the price and quality of our products (ex.: bovine carcass quality), it enabled official quality signs to be developed in order to credit the efforts made by some (ex.: selection) and to acknowledge the distinctive nature of the various food crops.

The existing system allows us to have the same level of premiums between Scottish livestock farmers who have one thousand heads/hectare and insular Greek livestock farmers who are also fishermen and only possess five ewes on small farms. Initially State-controlled, the premium became the same throughout the four corners of the EU. Today, cross-compliance has also enabled European farms to make essential progress. Earlier, our own value systems served as a standard in animal welfare matters, whereas now we all comply with the same rules regardless of what country we live in: from the livestock density per hectare required to be entitled to grass premiums to the number of head per building, not to mention the

type of treatment and the manner in which product labels are completed to ensure traceability by the consumer.

So much progress has been made that it is not possible to return to a national policy. The new CAP cannot be anything other than European. In fact, the problem for the future CAP will not relate to how funds are allocated between the first and second pillars, but to co-financing terms. The second pillar needs co-financing right now. If that is not changed, and this component is not reinforced, the cost of funding such measures will have to borne by local and national economies. Today's national public finance crisis is calling for a return to simpler mechanisms and a frank discussion of our common objectives so as not to rely on unpredictable financing from one economy to the next.

Developing a singular sector: An approach between liberalisation and challenging consumers' consumption patterns

Above and beyond fast consumption patterns, European consumers feel the need to find products which correspond to a certain food crop. Indeed, aware that the present serious concerns about meat should not be ignored, we no longer advertise blanket messages about the health benefits of eating meat on a daily basis. Today meat – and notably lamb – is often consumed on festive occasions. This model is intriguing. As livestock farmers who produce quality meat, we meet the demand of consumers seeking a certain quality level, an origin, a specific consumption pattern. In this market environment, it is vital to maintain the capacity to produce quality meat for consumers who demand it, which is perhaps an alternative form of food sovereignty.

We advocate the idea that, for this reason, total globalisation is not the answer. However, this is what occurred in the sheep sector in 1994 when the GATT became the WTO. The European sheep sector, then dominated by the English, was caught up in pseudo-industrial agreements and this sector was forgotten: it was decided not to impose a customs duty on some 25% of the Oceanians' capacity to export to Europe. We then witnessed an invasion of products from the latter and from new economies: 220,000 tonnes of carcasses were imported, with the option to turn them into cut-to-order meat for supermarkets, which made a profit basis out of them. We confronted this problem knowing that, without our approval, our sector had been exposed to global competition. To deal with that, we need a defence system – one based either on tariffs or on protecting farmers' income – inasmuch as price volatility problems primarily concern crops. No means should be overlooked which will guarantee farmers a minimum income that will enable them to deal with volatility or excessive globalisation, regardless of what agreements may be in effect.

A key sector for employment in impoverished economies

In livestock farming, the activity we are developing is closely linked to the issue of employment. In the EU, the sheep and goats sector covers the last territories on which it is still possible to farm, which is often the last engine for development in an impoverished economy. In Spain, France, Ireland, Scotland and Romania – in all regions where there are difficult areas – livestock farming is present. In all EU countries, more than 50% of the farmers are over 50 years of age (or even 60 in certain Member States). If we do not create jobs, our production will not be sustained. It is therefore obvious that if we do not create normal physical work conditions (mechanisation, computerisation, training technologies), we will not make it. What we need is an environment that gives young people access to knowledge, and in order to do that, we need to rethink the present forms of aid in order to put to rest today's concerns about farmers' income.

Beyond the basic premium, an aid must first be proposed which would include a "job" component, because sheep and goat farming plays a developmental role in an impoverished economy. The aids should correspond to the methods we use to create jobs in one of the most traditional farming sectors and in the poorest Member States. When the last reform was passed, 22 out of 27 Member States chose to link the aids to a certain type of profession, production or orientation which they wanted in terms of livestock farming. What we are proposing now is to do the same thing.

Aids based on a contract between the farmer and society

The concept of "contract" is part of the effort to broaden the CAP debate, particularly in Northern countries where people were objecting to the environmental damage caused by certain small farms. Farmers were made accountable for that. The idea of a contract strengthens the link between aid and the ways in which farmers fulfil a particular contract. Under such a system, farmers could more effectively take into account and manage water, air, and climate change. The farmers I represent have told me that the system could lead to creating contracts which would remunerate those farmers whose practices match a territorial focus and a mode of operation chosen by society. At present, the situation is not clear: crop and livestock farmers must respect certain criteria, yet no one knows why they are doing it. If an environmental contract had been mandated from the start and we had had the production capacity to fulfil it, there would be grounds for discussion.

Currently, farmers do not believe that they are misappropriating money, but rather that the problem lies in the lack of transparency surrounding the concept of "contract": the objectives to be met are not clearly laid out. Let us consider livestock density, for example. This is a matter involving technical choice. However, when European requirements imposing a set number of Livestock Units (LSUs) were implemented without anyone knowing why or how, and without prior discussion, that was unacceptable. There is reason to hope that the new CAP will be based on objectives desired by taxpayers and defined jointly with farmers.

Proposals to improve livestock farming's contribution to 2020 challenges

Research and training will need to deal with climate change

The rise in average temperatures means that we are running a serious risk of developing, on our continent, illnesses now present on the African continent. Yet we no longer have marketing authorisations for ovine sector drugs due to a lack of profitability resulting from inadequate volumes. The impact of climate change (among other factors) on our professions needs to be taken into account.

Meeting the generational challenge

In the sheep and goats sector we can meet this challenge by employing women and young urban dwellers since this sector requires less capital than the others. However, opening up this sector to many young people is predicated upon what training will be offered to them.

Combining the agricultural system and forest capacity

While the complementarity between forests and livestock farming has not been adequately studied in Europe, it has been elsewhere in the world, in terms of grazing and over-grazing, and water and fire concerns. A livestock farmer can also be a forester for part of the year.

Considering livestock farming's domestic role

More and more retirees want to live in a rural environment. But what if people cannot live in this territory all year long? Livestock farmers have the material capability of maintaining life on the territories (ex.: communal aid

for snow clearing, weed control, road maintenance). The future CAP could take into account this type of contribution in order to meet tomorrow's challenges which extend far beyond climate change.

After 25 years of experience working with the Community, I am not ashamed of the CAP. We can meet the challenge and prove that the CAP can increase the income of farmers and breeders while improving production criteria, provided that clear constraints are discussed and set out. We want a CAP in which a farmer is not someone who receives, but rather one who enters into contracts. The work we have done to provide public goods should not be underestimated, but we feel that, in matters concerning water, air and biodiversity, we have already constituted a legacy which needs to be safeguarded through a CAP that binds together citizens, farmers and taxpayers.

The Spanish Presidency: An argument for a strategic vision of the CAP

Jaime Lillo, *Deputy Director General for Agro-food Policies, Rural Development and Water*

As agriculture and food are strategic sectors for Europe, they cannot be excluded from its vision of the future. The 2007-2008 food crises, which concerned decision-makers worldwide, are a reminder of how important these issues are.

Agriculture: A strategic sector

Import-dependent countries and the least developed countries have been the most severely affected by the significant rise in food prices, inasmuch as it has hindered their supply capability. Nonetheless, advanced societies were also hurt by the food crisis. The latter reminded Europeans that the situation to which we are accustomed – being able to enjoy the most secure, the largest and the most attractive food supply that we have ever experienced in our history – is not eternal.

Throughout history, agriculture has always played, and continues to play, a critical role in society. All States are endowed with agricultural policies, just as the European Union (EU) is endowed with the Common Agricultural Policy (CAP), which has generated, and continues to generate, substantial profits not only for farmers but for society as a whole. Society's very dependence upon farmers is a constant reminder of the strategic importance of this sector to the world and, therefore, to Europe.

The CAP debate intensified in the run-up to the Spanish Presidency

Before Spain assumes the Presidency of the Council of the European Union, a news leak occurred concerning the Commission's draft plan for

the next multiannual financial framework. This document referred to the CAP solely as a means to contribute potential resources for funding other policies. It thus represented an obvious threat to the sustainability of the European agricultural model as we now conceive of it, and of the CAP. The practice of taking from one policy (the CAP) to finance others reveals the paradox confronting the EU: even as the number of challenges which it must confront are increasing, its budget is stagnating. This equates to trying to build a house by removing bricks from its foundation in order to keep on building the part above ground.

The Commission voluntarily withdrew this document, thereby allowing the Spanish Presidency to focus their attention on the matter of the CAP.

The Spanish Presidency's contribution to the CAP

Before reviewing the accomplishments of the EU Council's Spanish Presidency, we should perhaps point out that we worked in a "transition" context, having gone through a change of Commission, a new Treaty predicated on the application of new rules, and the new positive factor of the Spanish Presidency's notable collaboration with the European Parliament. This climate enabled us to show considerable flexibility when the agenda was being prepared for discussions at the EU's Agriculture Council, and to initiate a medium term debate on the future of the CAP, the competitiveness of the European Agri-Food Model, our production model, and even the difficulties which we had to tackle when we began competing within the global framework. Part of this debate took place at the Agriculture and Fisheries Council meeting of 29 June, with the approval of the Council Conclusions on International Competitiveness of the European Agri-Food Model.

I make no mistake when I affirm that the CAP's prospects have improved as compared to those of six months ago. This assertion is based on the fact that the EU's Heads of State or Government have integrated agriculture and the CAP into the Europe 2020 Strategy. One of our primary concerns was that this Strategy would not include agriculture. Now we can be reassured on this point, since:

1. Agriculture and the CAP now have the highest level of recognition among the bases set out for the future European economic model.
2. The CAP will be expected to better meet the priorities set out by the Europe 2020 Strategy, by means of the post-2013 CAP's future reform.

Agri-food and agriculture: Inclusive sectors

I would like to comment on the title of this panel, "An inclusive agricultural sector,"by simply stressing that in the EU, 13.6 million people work directly in the agricultural, forestry and fishing sectors, and 5 million others in the agri-food industry, which gives us a total of 18 million people directly employed in the agri-food sector. The existence of these populations is having a compounding effect on the rural community which has promoted the development of logistics, distribution, promotion and the growth of rural tourism, as well as a stronger demand for diversified quality products – hence my assertion that rural environment activity is closely linked to the existence of our agriculture and the CAP.

It is also a sector which has better resisted declining employment, at least in Spain. Nonetheless issues have been emerging, notably those concerning an ageing population, part-time or seasonal employment, access to and integration of new technologies, and most importantly those relating to income. The average income for agricultural work is only half of that of other sectors. This critical problem remains unresolved. In order to ensure the perpetuity of agriculture and the presence of farmers in rural zones, agriculture needs to be transformed into an attractive activity; i.e., one which offers an acceptable income level. To achieve this, our agriculture

must be competitive throughout Europe and the post-2013 CAP must be consolidated.

What objectives and instruments should an inclusive CAP have?

Given all the above, what steps need to be taken to ensure progress? The first objective which needs to be integrated into the Europe 2020 Strategy is to find a way out of the crisis, to create jobs and to stimulate economic activity. Unquestionably agriculture must be part of the intelligent, sustainable and inclusive economic model. Whereas until now, debates had focused on other activities, the crisis apparently reminded us that agriculture is an economic activity that needs to keep growing and generating jobs; i.e., keep working in order to continue to offer food security and environmental, territorial and social services.

The next objective is food security, which is not a European problem per se, but is, on the other hand, an international one. It is our duty to help food production increase by close to 70% by 2050, and to do so in a way that is sustainable and coordinated with other agricultural policies. This is not an argument in favour of self-sufficiency, or of a return to past policies, but a matter of determining how to offer our populations food guarantees.

This is predicated upon the contribution of market-oriented farmers and professionals who strive for excellence in terms of production, environmental sustainability, as well as food safety and security.

Perhaps we can infer the following basic premise from the 2007-2008 crisis: it is hard to predict the future. No research organisations foresaw the rise in prices which we experienced in 2007-2008, nor their subsequent collapse. Most international forums reached a consensus, though entrenched in rather firm opinions, on the fact that agricultural policies are part of the global solution and not of the problem. What is needed is an agreement at the WTO, properly functioning markets which are transparent and predictable, as well as place for agricultural policies in developing – as well as developed – countries.

The third objective is environmental. We need to ensure that growth is green and sustainable, "produce more product with less input," and meet the climate change challenge. That is essential, inasmuch as agriculture occupies most of the territory and provides environmental services. No other economic activity makes it possible to so thoroughly monitor all EU legislation on the environment with which failure to comply can give rise to economic penalties.

What method should be used to change the agricultural activity framework?

How can all these objectives be met? The idea is also to progress smoothly, so that people investing in agriculture can count on a stable framework. For this reason, we are more inclined to advocate a revision, rather than a revolution, of the CAP.

The three main tools to implement this change are direct aids, market management instruments and rural development. The bulk of the CAP budget is devoted to direct aids and one of the most frequent criticisms concerns the allocation of those aids, which is based on a historic criteria. This means of distribution has been useful, but today we need to remunerate farmers for the services they provide to society: it is time to switch to a system which is easy to explain and to implement. In addition to the way in which aids are allocated, a positive assessment should be made of other operational aspects of the first pillar of the CAP. There is a well-known practice involving the management of a substantial volume of funds for this pillar, which has given rise to very positive reports underscoring how efficient controls over the financial management of direct aids to agri-

culture are in comparison to other EU policies. Since some of our methods ultimately work well, we should integrate production realities, as well as territorial, economic, environmental and social criteria, in the aids allocation process.

A decisive factor in determining our future direction is whether or not we wish to continue having farmers in Europe. We have already indicated that agricultural activity is showing a deficit, that a gap exists, which the economic crisis has widened, between the profitability of farming and that of other economic activities. We can narrow it by integrating new criteria and new concerns, yet it is difficult to imagine that a new generation of farmers will join the agricultural sector if it offers a lower level of aids.

Under the current system, there are rules dictating how aid should be allocated between farmers, regions and Member States, and each time an attempt was made to change them, serious complications arose. The Spanish Presidency chose to focus on market management – a topic which we deemed indispensable. Instability and situations such as that of milk, which became cheaper in supermarkets than water, make it difficult to maintain the production system and point to the need for a serious and in-depth debate to take place on current market practices.

During our Presidency, we focused on the importance of having a suitable safety net: the point is to maintain existing mechanisms and gradually adapt them to a changing reality. The first step must be to improve the food supply chain and the price-setting process, and to increase the primary sector's role in final price-setting. These are a few of the fundamental issues on which we worked during the Presidency. It is now the turn of legislative proposals to lead this debate which and that seems to be on track, since a consensus was reached on how these measures may be improved without their giving rise to additional costs.

Last but not least is the matter of rural development. A rural environment is obviously everyone's objective, yet there are many instruments, in addition to the CAP, which can be used to broach its problems (see Spanish Law 45/2007 on the Sustainable Development of the Rural Environment). In our view, the rural development policy must be maintained within the CAP and its principal aim should be to improve the competitiveness of the agri-food sector and the modernisation of farms and infrastructures, including irrigation, as environmental considerations (green energy, water saving and biodiversity protection).

I would like to end on a positive note. The agricultural sector is fully capable of meeting all of the challenges it now faces and of overcoming the crisis. Furthermore, this sector which is strongly implanted in the rural environment is making economic growth possible and promoting job creation. The new agricultural policy to be defined in the next few months needs to help strengthen and develop this sector by supporting the Europe 2020 Strategy's priorities.

Programme of the Seminar

Introductive Speech by **Gustavo Suàrez Pertierra**, *Director*, *Real Instituto Elcano*

Opening Speech of **Mrs Elena Espinosa Mangana**, *Spanish Minister of the Environment and Rural and Marine Affairs*

Panel 1 - Developing an economy based on knowledge and innovation: CAP's contribution to a smart growth.

Moderated by **Andras Vertes**, *Head of economic research institute GKI*

- **Pr. Raoul Bino**, *Managing Director of the Agrotechnology & Food Sciences Group of Wageningen UR*
- **Pr. Elias Fereres**, *Sustainable Farming Institute of Cordoba University*
- **Antonio di Giulio**, *Head of Unit, Food, Health and Well-Being, DG Research of the European Commission*

Panel 2. Promoting a more resource efficient, greener and more competitive economy: CAP's contribution to a sustainable growth

Moderated by **Nadège Chambon**, *Head of CAP 2013 research project, Notre Europe*

- **Tamsin Cooper**, *Joint Head of Agriculture and Rural Development Programme, Institute for European Environmental Policy*
- **Gonzalo Fanjul Suàrez**, *Senior Strategic Advisor at International Oxfam*
- **Jean-François Gleizes**, *Cereal Producer, President of Passion Céréales*

Panel 3. Fostering a high-employment economy delivering social and territorial cohesion: CAP's contribution to an inclusive growth

Moderated by **Charles Powell**, *Research Director, Real Instituto Elcano*

- **Emmanuel Coste**, *Breeder and Representative of COPA-COGECA's sheep and goats sector*
- **Alexandre Gohin**, *Economist, INRA*
- **Jaime Lillo**, *Deputy Director General for Agro-food Policies, Rural Development and Water*

Conclusions: Emphasize CAP's contribution to the EU 2020 Strategy

- **Sofia Fernandes**, *Head of Europe 2020 research project, Notre Europe*
- **Federico Steinberg**, *Senior Analyst, Real Instituto Elcano*

Legal Mentions

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