

The European researcher's vision of the European agricultural sector by 2020

1. European researcher's vision

- A prospective study for DG Agriculture was carried out in 2006 to assess the likely evolution of agriculture in the EU, and the impact this will have on rural areas
- Although Bulgaria, Romania and also Turkey (to a limited extent) were included in our research, consistent data was at the outset only available for the EU-25 countries, and that explains the focus of this presentation
- Looking ahead to 2020 has an obvious risk to mis-judge the degree of change that is possible, but general patterns of change are fairly certain

2. Scenar 2020 objectives

- Future trends and driving factors: what is likely to happen in the future, and why
- Perspectives and challenges: what further developments are likely and what are the possible consequences that should be taken into account as soon as possible

3. Two types of drivers

- One should not be surprised that policies are often designed in response to major trends, and the Scenar 2020 study has found that there are drivers which are to some extent independent of policy influence over the period of 1990 to 2020

4. Population will be the main rural driver

- Certainly the macro-economic context has an enormous influence on employment possibilities within any region, and when coupled with the state of regional infrastructure (jobs, education, ...) there will be a strong incentive to migrate towards areas of employment and cultural attractiveness.

5. Some regions will benefit from migration

- The regions that are targeted by migration tendencies may also have additional environmental benefits, and therefore are attracting a second type of migration linked to environmental attractiveness, which reinforces the economic attractiveness.

6. Projected overall annual employment growth

- Although relative economic strength can be corrected by structural measures (new transportation systems, financial encouragement of job creation), within the 15 year projection period of Scenar the current reality will have an effect on the potential of economic diversification on farm or the possibility for secondary employment off-farm.

7. Projected agricultural employment share
 - It is important to keep in mind that the relatively high level of persons employed in agriculture in some regions – compared to other economic sectors – is a reflection of actual part-time farming, which ranges from a relatively low level of 40% in Belgium, Ireland, Luxembourg and the Netherlands, to a relatively high level of 80% in Greece, Spain, Italy and Portugal.
8. Economic, agri-employment and population factors
 - One also has to keep in mind the very wide spread in farm size across Europe, in which there are very strong differences between Eastern and Western Europe as well as differences within each of these zones.
 - EU-15: average size ranges from 4 ha in Greece to 67 ha in UK
 - EU-10: individual farm size will range from under a hectare (barely enough for subsistence for one family) to well over a thousand (the former state farms now managed as cooperatives).
9. ... Many areas of moderate potential
 - There is an adequate relationship between farm size, commodity mix at the farm level and the basic economic strength within many regions to assure that the farming infrastructure will be maintained
10. ... And possible winning regions
 - Some regions benefit from a combination of factors, including accessibility to markets as well as a positive global market evolution for the commodities that are typical for these regions
11. Sectoral structure of the economy: EU-25
 - It has to be recognised, nevertheless, that the contribution of the agricultural sector to the overall economy is limited within the European context: in many areas agriculture only contributes 4% of the gross value added to the rural economy.
 - The weakness of the industrial sector in Europe also means that in some areas the possibility for second jobs within industry does not exist, and then there is the risk of structural under-employment within agriculture
12. Share of agriculture and food processing in GVA: EU-15 and EU-10
 - The heritage of the past is a reality to take into account when considering the prospects for future agricultural development. Not only is the relative contribution of agriculture to the economy more important to the East than to the West, there is also a possibility for expansion of agricultural production that is greater in the East because of lower production costs relative to the West. This is analysed for the major agricultural commodities in the full Scenar 2020 study.
13. Major social trends
 - Social preferences, especially regarding food preferences, will probably not come as a surprise; what remains uncertain is the actual weight of these preferences in the economy, considering overall consumer choice patterns

14. Cereals: production and area use

- One of the critical drivers is the development of technology in the agricultural sector. Productivity gains have been going on for decades, although the rate is slowing perhaps. Nevertheless, there is a conjunction of increased output per ha and per worker, the fact that people do not necessarily eat much more when they have more disposable income, and the effect of opening markets globally which means that although total production may increase, the area required will at the same time decrease

15. Livestock: production and consumption

- Consumption of livestock related products increases, but the production levels do not necessarily follow this trend
- One really measurable effect of change in consumer preference is the relative shift in consumption from beef to chicken and pork; the consequences of this shift for European meat production is amplified by increased imports of meat because of changes in international market prices

16. Biofuels: significant increase to 2020

- European policy to encourage biofuel use has a positive effect on EU production levels, but the future demand on arable crops will probably reach a ceiling with the increased use of woodchips for heating and also – along with all forms of biomass – for biofuels that will be possible with new technology that makes it possible to convert biomass to ethanol

17. Oilseeds, other crops & energy crops

- Oilseeds production for human use is likely to reach a ceiling in Europe
- Other crops, particularly fodder, will become less important; for fodder, the reason is linked to several factors, including a decline in the beef and dairy herds, the co-production of feed from the crushing of oilseeds for biofuels, and the shift in consumer preference from beef that has already been mentioned
- Energy crops, including both cereal seeds and oilseeds, is a logical exception from the trends concerning the other arable crops

18. Number of farms 2003 / 2020: decline

- Long-term phenomenon
- FAO statistics since 1960 record annual decline in farmers on the order of 2% per annum in Western Europe
- In Eastern Europe the structural adjustment happened abruptly in 1990, and from the present time an annual decline on the order of 4% is likely up to 2020
- Depending on world markets and trade policies, certain commodities will maintain their importance, others are likely to lose market position

19. Changes in number of farms

- The average decrease of farm units regionally will be in the range of 0-5% per annum, with a 25% decrease in the number of farms overall in the next 15 years
- Average farm size will be bigger
- Income per agricultural worker will increase, benefiting from productivity gains ... and therefore the possibility to diversify to other activities related to the farm and its output or to have an off-farm second job

20. Environment matters

- *Environmental issues* (2nd point): European agriculture has made considerable progress in responding to the environmental challenge
- Increased understanding of potential pollution has led to alterations in farming practices
- With the change in the economic situation in the early 90's within Eastern Europe, there was a marked decline in production. The rapid restructuring and increase of production in the Eastern countries will be accompanied by an increase in fertilizer use; in Western Europe, a process of rationalisation of production is likely to lead to decreased use of inputs.
- *Climate change* (1st point): Certainly major adaptations in regional specialisation of commodities will be called for, with severe handicaps in southern Europe coming from a decrease in water availability.

21. Climate change will have effects

- Taking wheat as an example, there is both a northern extension of the area suitable for growing wheat, and a contraction of the southern range for this crop. The change of area suitable for particular arable crops also holds true in forestry: already in the Forest of Orléans, the French National Forestry Service is no longer planting pendunculate oak, because this tree is at the southern limit of its range, and this limit is expected to rapidly shift towards the north.

22. Agricultural systems: tendencies

- A few concluding remarks of the tendencies for agriculture in the coming years
- Organic agriculture is strongly encouraged by the European Union and by many Member States; consumer demand is variable, however, in spite of the awareness campaigns that have taken place. Is there a ceiling to the extent of arable area devoted to organic crops?
- Quality endorsement through labelling has developed in a significant manner, thanks to European and national level certification and labelling measures.
- Agricultural technology is making considerable progress to better master of inputs, and with the help of compact and portable computer systems and satellite-based terrestrial positioning capacity, precision farming is another vector for increasing output and reducing costs.
- The counterpart is the intensive use of land for current and future cropping regimes, in which the resort to bio-fuels will also be going to have an impact.

National and European policies will be essential to control possible landscape disturbance in an equitable manner for all farmers.

- Niche markets offer prospects for individual entrepreneurial objectives: the web helps to reach consumers and modern shipping logistics makes it possible to provide individualised shopping baskets to the consumers' door-step.
- As already suggested above, farmers to survive will spend a great effort to master costs through the control of inputs.
- But in face of the farmers, there are the distribution chains that are imposing specifications for very high quality output and delivery conditions, with the effect that there is an increasing price squeeze on the individual family units.

23. Concluding slide

- The future of agriculture is complex, and the Scenar 2020 study team has worked to clarify what this future might look like.
- Scenar 2020 study is available on the DG Agri web-site; easiest way to find it is through Google, typing in 'Scenar 2020'
- A publication giving the principal parts of the work done for the Scenar 2020 study will be available from DG Agri by the beginning of May (2007).

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