



Public Goods and Public Intervention in Agriculture

*Presentation based on the work of the ENRD Thematic
Working Group 3*



Introduction

- The ENRD Thematic Working Group 3 on “**Public goods and public intervention in agriculture**” was launched in April 2009
- Main objective: establish a common understanding of the “public goods” provided by agriculture, the relevant delivery mechanisms and the implications for the future policy
- Focus: role of the 2007-2013 EU Rural Development Programmes in the provision of such public goods
- Dissemination of results: final seminar (Brussels, 10 December 2010) and a [brochure](#) accompanying this presentation





Structure of the presentation

- What are public goods and how do they differ from private goods?
- What is the relationship between public goods and public policy?
- What are the main public goods provided through agriculture in Europe and what sort of management practices are they associated with?
- How does Rural Development policy encourage the provision of public goods?



What are Public Goods?

- 'Public Goods' is an economic term that refers to those goods, services and other matters that society values and would like to secure, but that cannot be delivered via the market – e.g. Biodiversity or landscape.
- Public goods are defined as having two main characteristics:
 - **Non-excludable** – if the good is provided to one person, other people cannot be excluded from the enjoying its benefits.
 - **Non-rival** – if the good is consumed by one person, it does not reduce the benefit available to others.





The difference between private and public goods: Private Goods

- Private goods and services (e.g. food or drink) can be secured effectively through the market, which is able to balance supply and demand.
- This works because consumers are able to articulate their demand for a product, and producers (including farmers) can respond accordingly.



The difference between private and public goods: Public Goods

- Markets do not function properly for public goods because their characteristics mean there is no clear incentive for individuals to pay for them
- There is also no incentive for anyone to provide public goods as there would be no reward for doing so
- This means that public goods risk being under-supplied in relation to demand from society.



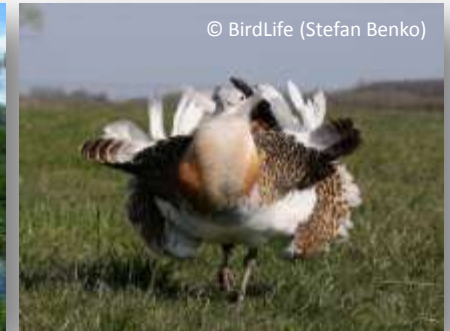


The Role of Public Policy

- Intervention in the form of public policies is needed where there is demand from society for a particular public good and this is not provided in sufficient quantity without such action.
- Intervention can take a number of forms:
 - Clear standards as a baseline for permissible actions; and in many cases also
 - The use of public funds to incentivise the supply of public goods



Environmental Public Goods from Agriculture



- Farmland biodiversity
- Water quality and availability
- Soil Functionality
- Climate stability – carbon storage and reducing greenhouse gas emissions
- Resilience to fire and flooding
- Agricultural landscapes



Other Public Goods Associated with Agriculture



- Rural vitality
 - Viability of rural populations and communities
- Farm animal welfare
- Food security
 - Retaining the capacity of the land, other resources and skills to produce food into the future.



Farming practices that deliver public goods

- All types of farming can provide public goods if the land is managed appropriately
- The type and amount of public goods provided varies between different farm types and farming systems
- The greatest range of public goods tend to be provided by:
 - Extensive livestock and mixed systems
 - More traditional permanent crops
 - Organic systems
- More productive farming systems can also provide public goods by adopting environmentally beneficial practices and the use of new technologies.



Extensive Livestock – Moieciu de Sus, Romania

Clean, Sustainable Water Supply

- No use of irrigation
- No pesticides or herbicides used
- Manure dressing on meadows and pastures is light.

Flood Control, Erosion Control

- Permanent pasture on slopes – soil not exposed to erosion agents
- Livestock housed in winter avoiding danger of poaching.

Cultural Landscape

- Walls, hedges, farm buildings
- Historic field patterns, over 450 fields in one valley.



Biodiversity

- Vegetation mostly permanent grassland managed as meadows and pastures, including 3 habitats of Community Interest and supporting at least 46 species of butterfly, 3 on the Romanian Red List and a further 5 on the European Red List
- No herbicides used.

GHG Emissions

- Dung applied mostly by hand as farmyard manure; de-nitrification unlikely to be an issue
- Very efficient in terms of energy use – little or no use of fuel, nitrates or concentrates.

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Grazed mountain pastures, Auvergne, France

Summer grazing by sheep protects against soil erosion and wild fires, even in almost inaccessible places. Shepherding ensures whole grazing area is used, keeping landscape open and preventing damage.

Drover tracks maintained for use by livestock provide sustainable walking routes for tourists.

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Maintenance and restoration of cultural heritage - stone walls and '*Burons*' (shelters, formerly used by shepherds during summer).

Rich diversity of flowering plants, due to very extensive management with no agricultural inputs and livestock grazing for 3 to 5 months in summer



Extensive Unirrigated Olives – Sierra de Gata, Spain

Fire Control

- Absence of dense vegetation can act as fire break.

Clean, Sustainable Water Supply

- No use of irrigation
- No fertilisers applied
- No pesticides or herbicides used.

Cultural Landscape

- Walls and terraces
- Historic land use mosaic.

Biodiversity

- Small patches with long ecotones with surrounding SNV
- Semi-natural ground layer; no herbicides
- Terraces provide habitat for invertebrates and reptiles
- Old trees themselves an important habitat
- No pesticides or herbicides used.

Erosion Control

- No interference with natural watercourses
- Ground layer and terraces minimise slope erosion
- Ground layer prevents wind erosion.



Intensive Arable – Kraichgau, Baden-Württemberg, Germany

Cultural Landscape

- Open Structure
- Hedgerows
- Single trees

Biodiversity

Hedgerows and lines of trees provide habitats for:

- Birds [Lanius collurio – Red-backed shrike], [Emberiza citrinella - Yellowhammer]
- Insects,
- Mammals (hedgehogs),
- Toads

Water Quality

-Improvements in groundwater quality can be achieved through lower inputs

Many of these management practices and farming systems also contribute to rural vitality

- Increased opportunities for **tourism**
- Changes in **employment** opportunities
- Opportunities for **adding value to food/other products**
- The maintenance of traditional agricultural skills or the development of new **skills**
- **Investment** attracted to the local area;
- **Impacts on population levels** - slowing down outmigration
- Benefits for **cultural heritage**



Why incentives are needed

- Market forces and technological developments have shifted land use towards more intensive forms, accompanied by:
 - Increased productivity in more fertile areas;
 - Marginalisation / abandonment in less productive areas
- These processes have led to widespread deterioration in the state of the environment and structural changes have led to the outmigration of people from rural areas
- Despite some localised improvements significant changes are needed to meet EU targets (e.g. for biodiversity or climate)
- Policy action is needed to deliver the level of public goods demanded by society and public money is needed to pay for those that are not required to be provided by law.





The role of Rural Development Policy

- Rural Development policy offers a range of measures to support the provision of public goods in a targeted and deliberate way:
 - Area payments to incentivise land management practices;
 - Capital investments to support the introduction of environmentally sustainable technologies or to create business opportunities in rural areas;
 - Investments in advice, training and capacity building
- These payments are underpinned by direct payments in combination with cross-compliance which help maintain the economic viability of farms and provide a basic level of public goods





Supporting land management practices that provide public goods

- Three main measures:
 - Agri-Environment measure – by far the most important measure
 - Natural Handicap measures
 - Natura 2000 measure
- Focus predominantly on maintaining and enhancing:
 - Farmland biodiversity and agricultural landscapes
- Also have a significant role to play in relation to:
 - Water quality, soil functionality, carbon storage, rural vitality





Investing in rural areas: the agricultural sector

- Relevant measures include:
 - Farm modernisation measure
 - Infrastructure development measure
 - Adding value to products measure
 - Semi-subsistence farming measure
- Where they are used to encourage the delivery of public goods, the focus is mainly on delivering improvements to:
 - Water quality, soil functionality, water availability, reductions in greenhouse gas emissions
- They also contribute to rural vitality by helping to improve the competitiveness of farms or providing opportunities for diversification



Investing in rural areas: contributing to rural vitality

- Relevant measures include:
 - Basic Rural Services
 - Village Renewal
 - Tourism Activities
 - Conservation and upgrading of the rural heritage
- Maintaining the social and economic vibrancy of rural communities also helps to:
 - Maintain farming activity in rural areas and associated environmental public goods;
 - Promote cultural diversity and identity
 - Provide a solid basis for new business opportunities, including tourism, local food etc





Building Capacity

- Involves development the skills and knowledge of rural communities and land managers and helps to :
 - Underpin the sustainability of rural communities
 - Bring about longer term behavioural change
 - Ultimately facilitating the long term involvement of rural actors in the provision of public goods
- Relevant measures include:
 - Advice and training for the farming community, particularly on environmental management techniques
 - The Leader approach to stimulate rural vitality and revitalise rural communities through funding 'bottom up' local initiatives



Key points for the successful delivery of public goods

- Achieving the outcomes needed in relation to public goods through the use of rural development measures depends on a number of factors:
 - Selection of measures to be used within an individual RDPs
 - The targeting of measures at the relevant public goods
 - Administrative and technical capacity within national administrations, extension services, research bodies and paying agencies
 - Degree to which advice and training is provided to farmer and other local actors
 - Effective monitoring and evaluation programmes being in place





Conclusions

- Role of the CAP has changed over time:
 - From the supply of rural commodities
 - To a broader set of objectives to support the provision of a wide range of environmental and social public goods
- Looking to the future, the delivery of public goods will face new challenges as environmental, social and economic conditions change
- The mix of policy instruments used to address these challenges will need to evolve to reflect these changing circumstances



For further information:

Visit the TWG3 page on
the ENRD web site...

<http://enrd.ec.europa.eu/>

..and download the Brochure

["Public Goods and Public Intervention in Agriculture"](#)

