

# The feasibility of achieving scale and scope effects within Agri-environment schemes

Dr. Liam Dunne  
*Rural Economy Research Centre,  
Teagasc*



XXII<sup>nd</sup> Congress ESRS,  
Wageningen, NL, 20-24 August 2007

**RERC**

# Presentation outline

- AES – general characteristics
- Policy context – CAP Pillar I and II
- AES – Ireland, case study (REPS)
- AES/REPS – outputs
- ? link REPS outputs to “private” markets
- REPS proposals linked to RD and markets
- Conclusions

# Agri-Environment Schemes (AES)

- AES – Farmer to Public agency contracts
- publicly financed to supply “public goods”
  
- AES benefits accrue to:
  - ▶ Society in general – mainly through “passive” consumption
  - ▶ AES participants through:
    - rewards for participating in the scheme, plus
    - consumption of public goods
  
- Participating farmers’ have dual contracts:
  - ▶ Private agency/market for food products (CAP Pillar I)
  - ▶ Public agency for AES products (CAP Pillar II)

# CAP Pillar I post decoupling

- Farm income opportunities are constrained
- Off-farm income opportunities in Ireland are good
- Consequences – an accelerated shift to:
  - ▶ Part-time farming
  - ▶ Almost monoculture grassland ? landscape and biodiversity
  - ▶ Simplified production systems that are:
    - Low cost
    - Labour efficient
    - More market oriented
- AES option – attractive economically !

# CAP Pillar II

## Rural Development Support

Objectives are to improve:

- Axis 1 – competitiveness of agriculture and forestry (? AES role)
- Axis 2 – environment and countryside (AES)
- Axis 3 – quality of life in rural areas and diversify the rural economy (??? AES role)
- Axis 4 – LEADER (? AES role)

# AES and its markets

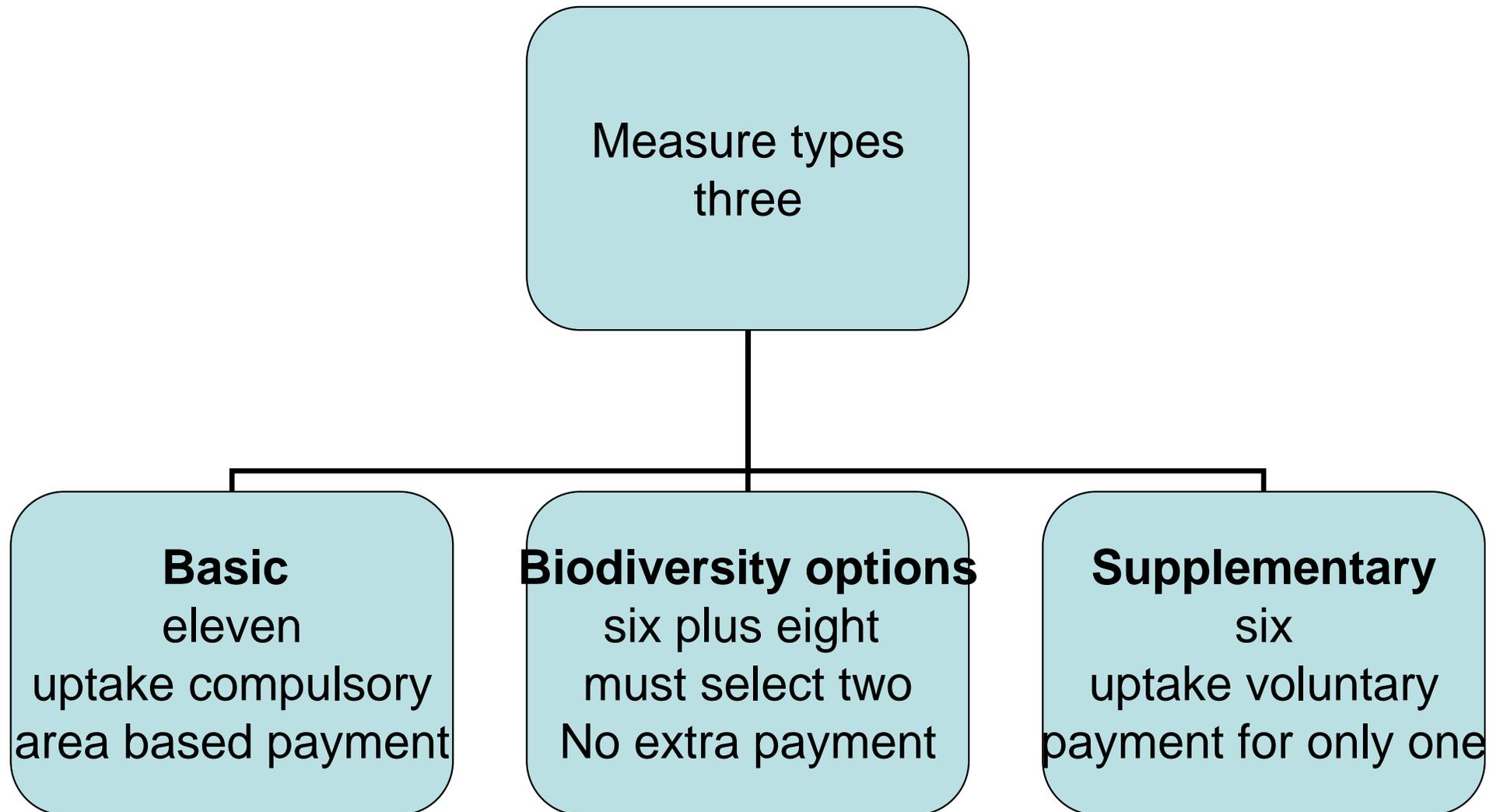
- Ireland's AES - case study
- Rural Environment Protection Scheme (REPS)

# REPS - outline

## REPS:

- Farmer participation - is voluntary
- Contract term - 5 years
- A whole farm scheme
  - all land farmed must be included under AES management
  - compatible with SFP
- Planner – a requirement and paid by farmer
- An evolving scheme – REPS 4 in preparation

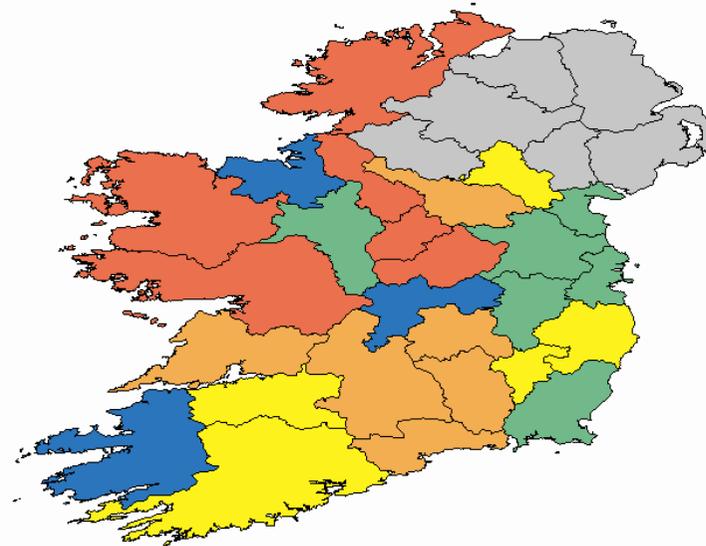
# REPS structure



# REPS - Supply of environmental outputs

- The supply of AES goods depends on:
  - ▶ Efficiency of the scheme design - ? improvements
  - ▶ Participation level – ? Geographic contiguity
- Scale and concentration of supply depends on:
  - ▶ Farmer participation
    - REPS is voluntary - ? Geographic contiguity
  - ▶ Degree of compatibility of AES design with:
    - Farm-resource endowment and production systems
      - » may be a regional aspect favouring concentration
    - Farm household aspirations post decoupling

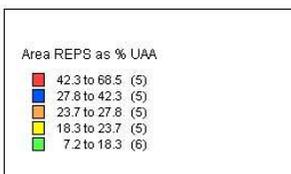
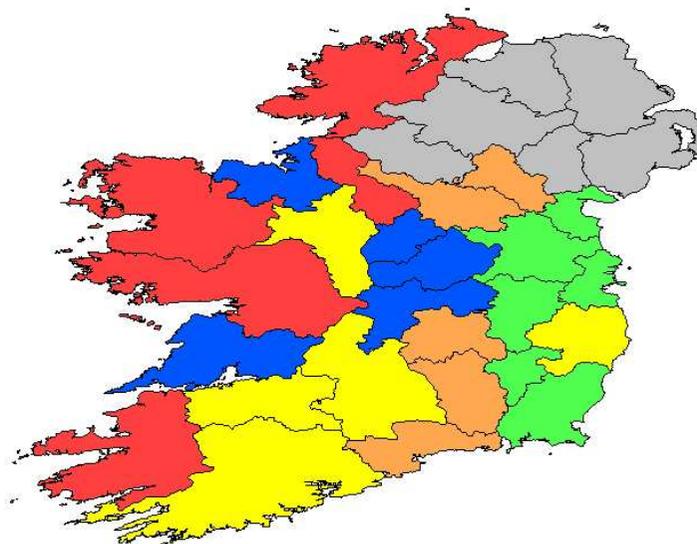
Map 2 : Number of REPS (1&2)(2003) participants as a percent of Farms (2000) - Ireland



REPS participants as a % of Farms

30 to 59	(6)
26 to 30	(3)
22 to 26	(6)
18 to 22	(5)
9 to 18	(6)

Map 3 : Area in REPS (1&2)(2003) as a percent of Total UAA (ha) Ireland (2000)



# REPS

- REPS already compatible with CAP:
  - ▶ Pillar I – SFP and whole farm system
  - ▶ Pillar II – axis 2 objectives
- REPS links with:
  - ▶ Competitiveness (axis 1) ?
  - ▶ Quality of life and diversify rural economy (axis 3)  
? tenuous and underdeveloped
  - ▶ LEADER ?????

# ? ? private markets for AES outputs

Could private markets be developed through linking:

- ▶ AES output and supply, with
- ▶ Market demand to create a “ REPS boutique” for:
  - AES type food outputs
  - AES non-food products

# ? ? private markets for REPS outputs

## ➤ Private markets:

- ▶ how might they be encouraged
- ▶ REPS boutique implies quality and price premium
- ▶ sustainability requires a margin over costs

## ➤ Unit costs can be reduced by economies of:

- ▶ **Scale** and concentration in the supply of AES products
- ▶ **Scope** through developing multiple AES products to spread marketing overheads –i.e. branding

# Enhancing REPS design and participation

## scale and concentration

development through new measures on:

- ▶ Land use and crop mix
- ▶ Livestock enterprise mix
- ▶ Built environment – integrating Farm and Local (community) non-farm
- ▶ Incentives for inter-farm cooperation to secure group participation and outputs

## scope development

through REPS branding and fostering participant linkages with:

- ▶ Food markets
  - Farmers markets
  - Local restaurants
  - SMEs
- ▶ Community activities
  - Recreational
  - Tourist based
  - Educational
- ▶ Local businesses serving the wider markets for:
  - quality food
  - recreation and tourism
  - education on farm and environment related activities

# Enhancing REPS

- REPS could be re-focussed to include additional measures on :
  - ▶ Land use and crop mix -- scale and contiguity
  - ▶ Livestock enterprise mix -- scale and contiguity
  - ▶ Built environment (Farm and other Rural) - scope
  - ▶ Support (scope) linkages with:
    - Underdeveloped food and product markets
    - Public good “markets”

# Land use and crop mix

- **Minimum mix per farm** could:
- Arrest the drift towards monoculture farming
- Support landscape and bio diversity
- Support and maintain a mix of:
  - ▶ food and fodder crops
  - ▶ energy crops
  - ▶ forestry
  - ▶ eco systems –wetlands, bogs etc
- Support the integration of crop and livestock farming
  - ▶ crop rotations
  - ▶ bedding materials – integrating crop and livestock
  - ▶ straw for mushroom production – competitiveness and diversification
  - ▶ organic nutrient recycling - efficiency
- Support traditional practices and related farm equipment

# Livestock enterprise mix

- **Minimum mix per farm** could:
- Arrest the drift towards single enterprises or segment of an enterprise
- Exploit inter-enterprise complementarities (grazing and feeding)
- Enhance the opportunities for nutrient recycling:
  - ▶ straw
  - ▶ crop wastes
  - ▶ organic manures, (especially for pigs and poultry – a competitiveness issue)
- Support and maintain ecosystems associated with mixed farms
- Support traditional practices and related farm equipment

# Built Rural Environment

- On-farm vernacular structures already in REPS
- Future financial support for:
  - ▶ Non-farm vernacular structures (rural houses and villages)
  - ▶ the integration of farm and other rural structures
  - ▶ the preservation of ecosystems associated with vernacular structures
  - ▶ the re-integration of farmers in evolving rural communities
  - ▶ Planned development of rural (REPS) recreational facilities through formal linkages – new business

# Linkages

Additional support measures for the development and strengthening of linkages

- Within farming to achieve economies of scale for REPS (food and Non-food) outputs
- Between farming and other sectors to achieve economies of scope (exploitation of REPS as a marketing brand)

# Farm Linkages

A REPS measure to develop and support farm groups participating in activities on:

- ▶ Resource use and conservation (scale exploitation)
- ▶ Trade-offs between farming and environment
- ▶ Raise environmental awareness
- ▶ “Greening” of inputs – mixed farming & inter-farm trade (scale and efficiency)
- ▶ “Greener” technology transfer
- ▶ Markets for food outputs (scale exploitation)
- ▶ Markets for Non-food outputs (scale exploitation)

# Linkages – REPS branding

A REPS measure to develop and support linkages and participation by farm groups with Non-farm entities for:

➤ Marketing REPS food

- ▶ Farmers markets
- ▶ Local restaurants
- ▶ SMEs

➤ Marketing REPS environmental outputs

- ▶ Local non-farm residents
- ▶ Recreational groups
- ▶ Tourists

➤ Educational institutions – schools and adult

➤ REPS based integrated community development of rural areas

# Conclusions

The proposed new REPS measures should:

- Raise the public and community profile of REPS
- Ameliorate some undesirable outcomes of decoupling
- Improve the marketing efficiency of REPS food outputs
- Link REPS with the other axes of Pillar II
- Improve the supply of REPS “public goods”
- Develop REPS as a brand for environmental products and related “public goods”
- Improve the quality of life in rural areas
- Diversify the rural economy and farm based businesses
- Re-integrate “new” farming into the local community

➤ END



**XXII<sup>nd</sup> Congress ESRS,  
Wageningen, NL, 20-24 August 2007**

**RERC**



**XXII<sup>nd</sup> Congress ESRS,  
Wageningen, NL, 20-24 August 2007**

**RERC**

# Presentation outline

- Changes in rural society and values
  
- Changes in CAP structures
  - ▶ Pillar I – market supports and SFP
  - ▶ Pillar II – Development Rural Support
  
- Enhancing the Scope of REPS

# CAP Pillar I - Decoupling

Post decoupling to SFP:

- SFP unprecedented and its impact uncertain
- SFP whole farm concept - ? compatible with AES
- SFP provides added scope for farm flexibility in:
  - ▶ Enterprise mix
  - ▶ Methods of farming
  - ▶ Intensity of farming
- Possible response by farmers –might opt for
  - ▶ simple production systems
  - ▶ single enterprise, and/or
  - ▶ component of a single enterprise

# Decoupling Implications

- Farm income dependency on:
  - ▶ production *per se* is declining
  - ▶ SFP is an increasing portion of farm income
  - ▶ X compliance necessary to secure SFP income
  
- Increasing dis-connect between:
  - ▶ land prices/rents and
  - ▶ farm enterprise margins

# REPS

➤ REPS participants **must**:

1. Farm within a nutrient management plan
2. Adopt a grassland management plan
3. Protect and maintain watercourses and wells
4. Retain wildlife habitats
5. Maintain farm and field boundaries
6. Cease use of agrichemicals near hedgerows, ponds and streams
7. Protect historical and archaeological features
8. Maintain and improve visual aspects of farm and farmyard
9. Leave uncultivated field margins and no stubble or straw burning
10. Undertake training in environmental friendly farming
11. Undertake to maintain prescribed farm and environmental records

# Rural Society

- Farming is changing:
  - ▶ Farm numbers are declining
  - ▶ Part-time farming is increasing
  - ▶ Productionist model is being challenged
  - ▶ Resource consumption is being challenged
  - ▶ Value of positive externalities is being recognised
- Rural society is changing
  - ▶ Migration and rural housing values - in flux
  - ▶ Direct linkages with farming are weakening
  - ▶ Indirect linkages are increasing
  - ▶ Use of rural space – is being increasingly contested

# Biodiversity options

**Every applicant must undertake two options and one must be from category 1**

## **Category 1 options**

- Create new habitat
- Hedgerow rejuvenation
- New hedgerow establishment
- Additional stonewall maintenance
- Green cover establishment
- Environmental management of set-aside

## **Category 2 options**

- Traditional hay meadows
- Species rich grassland
- Increased watercourse margin
- Exclude all bovine access to watercourses
- Broadleaf tree planting
- Nature corridors
- Increase in archaeological buffer zones
- Management of publicly accessible archaeological sites
- Provide landscaping around the farmyard

# Supplementary measures

**Farmers may voluntarily undertake many  
but will only be paid for one**

- ▶ Corncrake habitats
- ▶ Traditional Irish orchards
- ▶ Conservation of rare breeds
- ▶ Riparian zones
- ▶ Linnet habitats – un-harvested crops for wildlife
- ▶ Organic farming