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Restoring the relationship between people and their native woodlands.

Pilot Project Proposal  
**For**  
**Integrated Sustainable Forest Management in East Clare**

This project targets the four main priority areas identified by the recent CAP Healthcheck, which examined the EU Rural Development Regulation, namely Biodiversity, Climate Change, Alternative Energy and Water Management harnessing and utilising the abilities of our native tree species.

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### **1.1. Acronyms**

|      |  |
|------|--|
| SFM  | Sustainable Forest Management              |
| EU   | European Union                             |
| CHP  | Combined Heat and Power                    |
| RDP  | Rural Development Programme                |
| CAP  | Common Agricultural Policy                 |
| ECJ  | European Court of Justice                  |
| NPWS | National Parks and Wildlife Service        |
| OPW  | Office of Public Works                     |
| ISSA | Irish Seed Savers Association              |
| CELT | Centre for Environmental Living & Training |
| RDR  | Rural Development Regulation               |
| REPS | Rural Environmental Protection Scheme      |
| FEPS | Forestry Environmental Payments Scheme     |

## **1.2. Definitions**

### *Sustainable Forest Management*

That use of natural forest which indefinitely maintains the forest substantially unimpaired both in the environmental services which it provides, as well as in its biological quality. Thus any harvest must not exceed the regeneration rate of the resource, nor impair the potential for similar harvests in the future.

## **2. Introduction**

This document has been prepared by The Woodland League.

We would have liked more time to produce a more comprehensive submission, however due to the short time frame imposed, we have been unable to elaborate on the finer details of this proposal.

We propose a one year feasibility study to examine how the project will be managed in a transparent and inclusive manner. During this time extensive consultation with all stakeholders including social and environment NGO's, local businesses and farmers will assist in formulating a management plan for the pilot project.

The follow-on three years will involve the implementation of all aspects of the project. This local pilot project will develop into a nationwide programme based on the results from ongoing monitoring and assessment of the project.

This project will help strengthen the ability of the region to withstand the dual pressures of climate change and global economic recession. It will link farm, public, community and private woodlands, including hedgerows. These areas of forest will be managed on a long-term and environmentally sustainable basis. We propose management using continuous cover, multi-use, diverse age and species forests incorporating selective felling techniques.

Public woodlands and forests will be surveyed and examined with a view to being incorporated into the project, these will include Coillte (The Irish Forestry Board) sites - some of which are uneconomic to manage under the current economic model-, NPWS and OPW sites (Currently without coherent management plans). The ESB have control of a large amount of lakeside woodland adjacent to East Clare, this land was purchased when the Hydro-electric station was installed at Ardnacrusha. All of the afore-mentioned woodlands require management.

The forest principles attached to Agenda 21 (Blueprint for sustainable development in the 21<sup>st</sup> century) form the foundation for this project.

“The guiding objective of these principles is to contribute to the management, conservation and sustainable development of forests/woodlands and to provide for their multiple and complementary functions and uses.”

(From Preamble Annex III (b) Forest principles, Agenda 21)

## **Multiple functions of natural forests**

Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations. These needs are for forest products and services, such as wood and wood products, water, food, fodder, medicine, fuel, shelter, employment, recreation, habitats for wildlife, landscape diversity, carbon sinks and reservoirs, and for other forest products. Appropriate measures should be taken to protect forest against harmful effects of pollution, including air borne pollution, fires, pests and diseases, in order to maintain their full multiple value.

(From Forest Principles, Agenda 21, Principle 1 (b))

## **3. Aims**

This pilot project will incorporate the region of East Clare, with Tuamgraney and Scarriff as a base. The aims of this project are as follows:

- Create meaningful employment.
- Examine multiple uses of woodland resources to maximise returns.
- Alleviate flooding within the area.
- Liaise and establish links with all relevant stakeholders.
- Establish sustainable community enterprises.
- Minimise erosion.
- Create partnerships both nationally and internationally.
- Provide training in sustainable development.
- Increase the overall well being of people in the area.
- Promote renewable energies
- Strengthen the areas ability for climate change mitigation.
- Provide fuel security for the future.
- Increase biodiversity, enhance and protect habitats.
- Integrate forests and hedgerows under a common sustainable management plan.
- Improve food options.
- Initiate sustainable research projects.
- Enhance areas tourism appeal.
- Improve fertility of the soil.
- Capture carbon.
- Increase forest cover.
- Prevent loss of money towards EU environment penalties.
- Increase awareness of the local environment.

### **3.1. Current status and achievements**

#### **Advantages of East Clare for Pilot Integrated SFM Project.**

- County Clare is one of the most wooded counties with a diverse mix of old and new woodlands.
- Finsa factory has the potential to become a power plant using local biomass.
- Raheen wood in 1919 employed 50 local people.
- Possibility exists to restore water turbine, saw mill and out buildings in Raheen wood (historical legacy).
- Diverse local skills pool/traditional and contemporary woodworkers, trained foresters, mycologists, wildlife experts, organic farmers etc.
- Local young people in need of training and meaningful employment.
- Olympus factory is on CHP, needs biomass and wood management.
- Revival of Hazel coppices within East Clare.
- Two well established environment NGO's, CELT and ISSA as potential partners.
- Celt & Willy Rost nurseries for certified native stock.
- Raheen wood, potential for large nursery.
- People in the area are working horses regularly for agricultural and forestry purposes.
- There are currently three large sawmills.
- Two wood pellet producing plants.

#### **Components of project currently in place in locality.**

- Tree nurseries  
There are a number of tree nurseries currently providing local native trees for local conditions.
- Community Woodland  
This 4-acre woodland is a working model of a sustainably managed native woodland. A comprehensive base line ecological study has been conducted at the site in 2008. This model is already linked to local schools and the information from the ecological study is currently being incorporated into an interactive website with the intention of engaging schools nationwide to assist their understanding of native woodlands and biodiversity. This valuable study will form the basis for measuring the benefits of SFM in other ancillary woodland projects.
- Weekend in the Woods, Teaching Traditional Woodland skills
- SFM Training program
- Information, Talks, Walks
- Tree planting
- River ecology/management
- Training in coppice management
- Natural Building
- Native seed collection
- Use of work horses

## **Woodland League has achieved:**

- Produced a comprehensive forestry report called Forestry in Ireland: A citizens perspective in 2005 and delivered same to the EU Agriculture commissioners.
- We have provided a free consultation service for individuals and communities regarding forestry issues and including creating community woodlands.
- Fern Report 2008, an examination of current RDP.
- Awareness raising events, tree planting, talks, walks.
- Tangencya, South Africa, 2006, Art and Tree conservation project.
- Two study tours to Poland, to examine their management and use of woodlands, ancient and contemporary.
- Walks, talks and Tree planting throughout Ireland. School education via Heritage in schools scheme, Andrew St. Ledger and Ted Cook.
- We are linked with the Wildlife Arboretum focusing on native species (Co. Limerick), Balrath community woodland (Co. Meath), Ballyseedy wood (Co. Kerry) among others.

## **4. Ten Priority Actions**

These are the areas which require immediate funding, in order to allow for the roll-out of a National Plan.

### **1.Wood Promotion Programme**

Create an information campaign and a wood promotion programme with the goal of reducing waste wood and encouraging the use of firewood and biomass. This will aim to increase the consumption of wood for energy. This will also encourage increased use of local wood for construction, furniture making and crafts, alerting consumers to the fact that using local wood and wood products actively contributes to the conservation of forests and the reduction of CO<sub>2</sub>.

### **2.SFM Management & Training Programme**

Training programme for sustainable forest management with emphasis on coppicing. A centre of excellence will be created to facilitate training and research. Create management plans under SFM principles, which will increase the quality of woodland products. The sustainability of all forest functions is the main principle of management. These functions include not only wood production and non-wood products but also nature conservation, protective functions of soil, air and water.

### **3.Mapping & Woodland Inventory Study**

A comprehensive map of the 30 mile radius will be created to record the locations of the local woodlands and hedgerows. Linking up with existing satellite mapping facilities currently being used by the Department of Agriculture and coupled with on site survey, over time a Tree and Shrub inventory will be formed. Identification and immediate protection for pockets of native woods.

### **4.Watercourse & River Restoration**

Riverbanks and watercourses will be planted with suitable native species and riparian wildlife corridors will be created. This action will involve practical measures like swales and research into flood alleviation and erosion mitigation.

### **5.Non Timber Products**

Research and examination of nuts, berries, dyes, flowers, herbs, fungi, bark, local charcoal production and other non-timber products and their marketing. This action will enhance the local economy and provide employment and additional sources of local food.

### **6.Alternative Energy Training**

Training in small scale renewable energy systems, including water turbines, wind, wood gas and solar. Research community wind farm concept and promote renewable energies.

### **7.Creation Of Local Brand**

Increase the attraction of sustainably managed woodlands by adding value to local wood and non-wood products. The creation of a public timber auction to give access to all of the craft materials and usable timber.

### **8.Monitoring Soil, Air & Water**

Ecologists and wildlife experts linked with schools and colleges will study in detail the health and quality of the forest, it's ecosystems and the soil, air and water within on a regular basis to monitor effects of actions. Researching of the eco-systems in the various woodlands to be managed. This will provide a valuable information resource for education and regulation.

### **9.Traditional Skills Training**

Training in woodcraft, charcoal making, hurdle making, rustic furniture, tool-making Etc. This would be targeted at farmers and woodland owners so they can increase their capacity to make a living from their woodland through craft.

### **10.Creation of a Sustainable Forest Standard**

The creation of a local Sustainable Forest Standard is an essential element for insuring the overall sustainability of this pilot project and follow on programmes. We enclose a template adapted from the Swiss Forest Standard. The Swiss voluntarily created an SFM Standard in 1997, 5 years after signing up to the Rio Declaration on Climate Change and the Agenda 21 forest principles.

## **5. Key national benefits**

### **National Education**

- Interactive community woodland website.
- Research into soil, air, water, ecology, biodiversity.

### **National Policy**

- River & Water management plans
- Innovative use of non-timber products
- Local forest standard will act as a guide for a National Standard.
- Bio-degradable packaging
- Local involvement in managing public woods.
- Hemp-board for insulation. Fits recent EU directive on improved energy ratings.

## **5.1 Suggestions for new national policy**

- The adoption nationwide of SFM focusing on our native species.
- Legislation to incorporate Agenda 21 (The blueprint for Sustainable Development)
- Creation of a single State body integrating responsibility for forestry, water management, biodiversity and erosion & soil fertility.
- The 1988 Forestry Act to be included in the current review of Forestry Acts.
- Provision for Environment NGO's to be included in monitoring and regulating of the environment.
- Creation of an independent EPA with public representation.
- Restoration of the freedom of information Act.
- Compensation and retraining of forestry contractors to adopt SFM

## **6. Summary**

The State is facing large financial penalties for breaches of EU environment laws. The ECJ has in recent times passed judgement against Ireland in regard to The Wild Birds, Habitat and Water directives. Implementing these measures will assist in the national response towards dealing with these issues. Training and meaningful employment and the creation of a local economy are positive by-products of these measures. What we are proposing is growing an economy.

This integrated, comprehensive, sustainable and holistic project promotes the wise use and management of natural resources. This plan specifically targets the four main priorities concerning the recent EU Rural Development Directive. Alternative energy, Water management, Climate change & Biodiversity.

This pilot programme fulfils the aspirations and aims of the recent Heritage Council Forestry Policy review and the Agenda 21 Forest Principles in Rio to which the State is a signatory.

This project has the potential to create a community oriented woodland company which manages local woodlands in an environmentally sensitive manner, markets all produce locally, creates opportunities for rural employment, minimises use of fossil fuels, recycles all wastes and requires low impact buildings (Craft shop, Depot, SFM Centre of excellence) made from local resources, operating in a flexible and transparent way within East Clare..

## **7. Costing**

All figures in Euros.

### **1 year feasibility study**

|                    |                         |                  |
|--------------------|-------------------------|------------------|
| Trainers           | (6 full time @ 35,000)  | 210,000          |
| Liaison officers   | (3 full time @ 30,000)  | 90,000           |
| Co-ordinators      | (2 full time @ 30,000)  | 60,000           |
| Researchers        | (14 full time @ 50,000) | 700,000          |
| Woodland Work Team | (20 part time @ 10,000) | 200,000          |
| Administration     |                         | 50,000           |
| Office space       |                         | 7,000            |
| Transport          |                         | 80,000           |
| Tools & Equipment  |                         | 50,000           |
| <b>Sub total</b>   |                         | <b>1,447,000</b> |

|  |  |                  |
|--|--|------------------|
| Project Startup Costs                          |  |                  |
| Research areas including Materials & equipment |  | 500,000          |
| Development areas                              |  | 300,000          |
| Contingency                                    |  | 100,000          |
| <b>Total</b>                                   |  | <b>2,347,000</b> |

### **Following 3 years**

|  |  |                   |
|--|--|-------------------|
| Running Costs (1,447,000 * 3)                    |  | 4,341,000         |
| Centre of Excellence for SFM training & Research |  | 6,000,000         |
| Seed Capital for relevant projects               |  | 3,000,000         |
| <b>Total</b>                                     |  | <b>13,341,000</b> |

*Please note that relevant Taxes and Insurance have not been included in this costing.*

### **Research areas**

- Mapping and of area
- Carbon Lock-up – Measuring local CO2 in the trees & soil.
- Water & Soil monitoring
- Health of woodlands

- Insulation
  - Hemp board
  - Cellulose fibre
- Biodiversity & Ecology monitoring
- Non-Timber products
- Adapting Sitka Spruce for construction using Boron salt methodology
- Design modular eco-hut using Sitka Spruce
- Viable products or product ranges
- Bio-degradeable packaging

## **Development areas**

- Managing woodland sites while training in SFM.
- Traditional skills training.
- Training in small scale renewable energy.
- Establishment of community based wind farm.
- Development to include research facilities
- Discovering the Forest education programme
- Emphasis on Native Woodlands.
- Creation and marketing of local brand to enhance value of timber & non-timber products.
- Restoration of degraded streams & rivers, including flood prevention measures.

## **8. Addendum**

### **8.1. Proposed Local Sustainable Forest Standard**

The six criteria used in this draft standard below are adapted from the Swiss Sustainable Forest Standard, 1997. We believe these six criteria encapsulate the essence of the Agenda 21 forest principles for Sustainable Forest Management.

#### **Criterion 1**

*Maintenance and appropriate enhancement of local forest resources and their contribution to global carbon cycles.*

#### **Indicators**

1. Create an information campaign and a wood promotion programme with the goal of reducing waste wood and encouraging the use of firewood and biomass. This will aim to increase the consumption of wood for energy.
2. Encourage increased use of local wood for construction, furniture making and crafts, alerting consumers to the fact that using local wood and wood products actively contributes to the conservation of forests and the reduction of CO<sub>2</sub>.

3. Establish a biomass programme involving all woodlands as well as establishing new ones. This will incorporate the use of Hemp, Native Willows, Ash, Alder, Birch, and mixed woods. Biomass will be used for wood chip, wood pellets, insulation etc. Coppice woodlands (proven to be of great benefit for biodiversity) will be managed in rotation – Alder, Spanish Chestnut, fast growing Willow etc, will be considered.
4. Local people and industry can offset their carbon through creating a financial instrument which will help with re-forestation.

## **Criterion 2.**

*Maintenance of forest eco-system health and vitality.*

### **Indicators**

1. Monitoring of the health of the forests and researching of the eco-systems in the varying woodlands to be managed. This will provide a valuable information resource for education and regulation. Monitoring of water and soil.
2. Prevention and repair of damage to woodlands (Restructuring). Emphasis on prevention of damage rather than repair.
3. Reducing damage due to game and grazing by fencing off of woods from animals to allow for natural regeneration. Management of deer, culling local venison, mobile processor and improving deer habitat in forestry planning.
4. Transformation of existing conifer plantations back to native via succession and hole cutting in existing canopy. More emphasis on Larch, Scots Pine, Spanish Chestnut, Hornbeam, and other useful non-natives. Mixed woodlands for diversity.
5. Identification and immediate protection for pockets of native woods. Currently not receiving any attention, with a view to their preservation, conservation and enhancement - Convention on Biological Diversity 1993.
6. The use of native trees to restore degraded sites. Using trees like Alder and Birch to create soil and Willow to soak up contamination. Erosion and shelterbelt planting.
7. Prevent burning of wood or scrub cleared material. Arrange to collect same.

## **Criterion 3.**

*Maintenance and encouragement of the productive functions of forests.*

### **Indicators**

1. Create management plans under SFM principles, which will increase the quality of wood/timber. The sustainability of all forest functions in the main principle of management. (Def SFM) These functions include not only wood production and non-wood products but also nature conservation, protective functions of soil, air and water.
2. Public participation in management plans involving public forests. NPWS, Coillte etc. Public to be informed as to the objectives of the management planning and timing and are able to participate in appropriate manner.

#### **Criterion 4**

*Maintenance conservation and appropriate enhancement of biological diversity and forest eco-systems.*

#### **Indicators**

- 1.Silvicultural practices will make proper allowances for the conditions prevailing on sites, for the natural flora and fauna and landscape. Natural regeneration is prescribed (fencing off areas) . No use of environmentally hazardous substances. No pesticides, herbicides or fertilizers.
- 2.Restoration of rare and vulnerable forest eco-systems, riverbanks, mires, bogs, rare forest communities, hedges, field woods, dry meadows.
- 3.Red list species habitats prioritised, look to expand old and ancient woodland sites.
- 4.Managing of seed stands for protection of genetic resources (currently no management)
- 5.Encourage natural regeneration (Where trees plant themselves) in as many woodland projects as possible. This is a preferable energy saving method of gaining natural tree cover as opposed to planting using human energy.
- 6.Repair watercourses in existing forestry plantations and plant with suitable native species. Where conifers have been planted too close to watercourses, cut back, and replant as above creating riparian nature corridors.

#### **Criterion 5**

*Maintenance and appropriate enhancement of protective functions in forest management. (Notably Soil and water)*

#### **Indicators**

- 1.Planting of Native Birch Willow Alder etc, to reduce soil erosion on hilly areas and creating shelterbelts on open land.
- 2.Promote gorse on farms, pioneer species, nitrogen fixer, animal fodder, oil.
- 3.Riparian planting of streams and rivers creating wildlife corridors, including increased forest cover over main groundwater reservoirs. Creation of swales and other measures to alleviate flooding.

#### **Criterion 6**

*Maintenance of other socio-economic functions and conditions.*

#### **Indicators**

- 1.Employment for ecologists, wildlife experts, foresters, trainers linked to schools and colleges. Training in SFM and woodcraft and charcoal making, hurdle making, rustic furniture. Etc. The creation of a public timber auction to give access to all of the craft materials and usable timber.
- 2.Creation of a local brand to add value to timber and non-timber products.

3. Consultation, advice, and audit of small farms to help them maximise the grants available under the RDP.
4. Incorporation of the community woodland model and create “Discover the forest” environmental model for schools and public.
5. Creation of community woodlands modelled on Tuamgraney community woodland with emphasis on native species. Creation of nurseries using Dunnemann (Use of leaf mulch to mimic how seed develops on forest floor).
6. Training program for sustainable forest management with emphasis on coppicing/ centres of excellence to be created.
7. Research and examination of nuts, berries, dyes, flowers, bark etc. and other non-timber products, within the East Clare SFM project.
8. Agroforestry programme - aim for one third of all farms planted with natives, tie into REPS, FEPS and RDP.
9. Training and use of horses for extraction, transporting etc - Euro federation for the promotion of the use of the working horse. British horse loggers info.
10. Tool making/blacksmiths for all new tools, bill hooks, chisels, etc - small industry using recycled iron/steel - Training for same.
11. Create colours dyes/ colours from trees and plants, organic.
12. Use interpretive technology/software for woodland heritage sites. zoikc.com – Ecotourism.
13. Use of Hemp for manufacturing local board. (Creating enviro-friendly high value insulation board as an alternative to chipboard and MDF with support from local Finsa factory) for retrofitting of insulation. This will be done in conjunction with a company who have done board research and have abundant stock of processed Hemp.
14. Potential for wind turbine workshops utilising recycled materials and incorporating the manufacture of wooden blades. (Which could become a viable business in its own right)
15. Research local bio-degradable packaging, hemp or cellulose based. Create compost depots for green waste near woodlands. Wood, safe metals, glass.
16. Establish a Centre of Excellence for SFM in East Clare. With a research facility
17. Creation of yard, depot, craftshop for sale of timber and non-timber products. (manufactured using local sustainable materials in order to become models of sustainable architecture while also promoting the use of wood.)
18. Water turbines, wind solar, promote same. Harness the energy of the rivers and streams again.
19. Celt to run 12 traditional up-skilling and training courses per year.
20. Dunnemanns to be rolled out for schools and farms etc.
21. Marking heritage sites via tree planting and managing i.e. ringforts with trees on. Search for cultural and heritage sites in the hills. Manage, tidy and mark, adding tourism value to east clare. Information, research, signage, books
22. Retrofitting of local accommodation to be more sustainable, for ecotourism, consultation and implementation. Renovation, using trad skills of existing heritage value properties in the area. Owners to be contacted and exchange offer for leases.
23. Training up of other environment NGO’s to add SFM component to their repertoire. Cost to develop training programme.
24. Find wooden boat in lake, put on display as example of woodland heritage, tourist attraction. Carbon date etc. Collect bog oak for sculpting.
25. Flood relief measures to include 18<sup>th</sup> century techniques, creating channels for excess water and storage areas for slow release of water creating alluvial floodplain areas. Using silt in water to fertilise fields in adjacent fields. Preventing soil erosion. Fish fry have safe havens when river is in flood.
26. Bushcraft or survival courses aimed at teenagers, including use of woodlands for therapeutic purposes.

## **8.2. Criteria For Developments**

### Criteria For Developments

#### Associated With Sustainable Land-Based Rural Activities

- 1.The project will have a management plan which demonstrates how the objectives cited in items 2 to 13 below will be achieved and maintained.
  - 2.The project will provide public access to the countryside, including temporary access such as open-days and educational visits.
  - 3.The project can demonstrate how it will be integrated into the local economy and community.
  - 4.The project can demonstrate that no activities pursued on the sites shall cause undue nuisance to neighbours or the public.
  - 5.The project will prepare a strategy for the minimization of motor vehicle use.
  - 6.Any developments or buildings associated with the project will be appropriately sited in relation to local landscape, natural resources and settlement patterns.
  - 7.New buildings will not be visually intrusive nor of a scale disproportionate to the site and the scale of the operation; will be constructed from materials with low embodied energy and environmental impact, and preferably from locally sourced materials, unless environmental considerations or the use of reclaimed materials determine otherwise. Reuse and conversion of existing buildings on sites will be carried out as far as practicable in conformity with these criteria.
  - 8.Any development will be reversible, insofar as new buildings can be easily dismantled and the land easily restored to its former condition.
  - 9.The project has a strategy to minimise the creation of waste and to re-use and recycle as much as possible on-site.
  - 10.The project has a strategy for energy conservation, and the reduction over time, of dependence on non-renewable energy sources to a practical minimum.
  - 11.The project aims over time for the autonomous provision of water, energy and sewage disposal and where it is not already connected to the utilities, shall make no demands upon the existing infrastructure.
  - 12.Agricultural, forestry and similar land-based activities are carried out according to sustainable principles. Preference will be given to projects which conform to registered organic standards, sustainable forestry standards or recognized permaculture principles.
  - 13.The project has strategies and programmes for the ecological management of the sites, including:
    - a.The sustainable management and improvement of soil structure;
    - b.The conservation and, where appropriate, the enhancement of semi-natural habitat, taking into account biodiversity, indigenous species, and wildlife corridors;
    - c.The efficient use and reuse of water, as well as increasing the water holding capacity of the sites;
    - d.The planting of trees and hedges, particularly in areas where the tree coverage is low including areas designated for riparian and erosion mitigation.
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