LIFE+ DINAMO Project: a demonstrative management model for increasing endangered biodiversity in agricultural and semi-natural areas. A regional study

ECOSYSTEM SERVICES TRAINING DAY
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The “DINAMO” project officially started in January 2010, supported by the European Union financial instrument LIFE +

(DINAMO: “increasing endangered biodiversity in Agricultural and semi-natural areas: a demonstrative Management model”.

(http://ec.europa.eu/environment/life/funding/lifeplus.htm)
University of Molise (Coordinator)
http://www.unimol.it/newweb/index.php

Confederazione Italiana Agricoltori
http://www.cia.it/cia/index.jsp

ENEA
http://www.enea.it/

IGEAM
http://www.igeam.it/
The project aims at preserving, implementing and monitoring biodiversity through joint conservation activities carried out by public (local municipalities) and private (farmers) actors.

The DINAMO project aims at putting in place and developing an integrated nature conservation approach in areas outside the sites of the Natura 2000 network, by involving public and private stakeholders, in order to better achieve the Natura 2000 goals and improve the connectivity between sites.

“...to develop instruments to enhance the conservation and sustainable use of biodiversity across the territory outside protected areas”.
The Dinamo project idea comes from the consideration of the Ecosystem Approach.

http://www.cbd.int/ecosystem/

The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

It recognizes that humans, with their cultural diversity, are an integral component of ecosystems.
The Ecosystem approach

The Ecosystem approach is based on 12 complementary and interlinked principles. In particular, the DINAMO Project started from the following considerations:

Principle 1: The objectives of management of land, water and living resources are a matter of societal choice.
Principle 2: Management should be decentralized to the lowest appropriate level.
Principle 3: The ecosystem managers should consider the actual or potential effects of their activities on adjacent and other ecosystems.
Principle 4: Recognizing potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context. Any of such ecosystem-management programme should:
   (a) Reduce those market distortions that adversely affect biological diversity;
   (b) Align incentives to promote biodiversity conservation and sustainable use;
   (c) Internalize costs and benefits in the given ecosystem to the feasible extent.

... 
Principle 10: The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity.

... 
Principle 12: The ecosystem approach should involve all the relevant sectors of society and scientific disciplines.
“Agricultural land makes up the majority of land outside protected areas in most countries. Therefore agricultural landscapes usually make up the habitat matrix through which most species need to move if they are migrating or dispersing between protected areas and other habitat patches” (IEEP, 2007).

“The quality of agricultural habitats and their external impacts on other habitats is of profound importance in terms of maintaining and enhancing connectivity in the landscape” (Donald & Evans, 2006).
DINAMO Project Area
C.1 Maintenance and protection of artificial nests for the Red kite (Milvus milvus).

C.2 Maintenance and protection of artificial nests for the European roller (Coracias garrulus).

C.3 Use of flushing bars on agricultural machines to reduce the mortality rate of ground nesting bird nestlings.

C.4 Maintenance of restored troughs in public areas.

C.5 Maintenance of restored forested patches.

C.6 Maintenance of restored forested strips.

C.7 Preserving vegetation natural recover in not productive areas of farms.

C.8 Ensuring long term ex situ conservation and propagation of native species ecotypes
# Targeted species and habitats

<table>
<thead>
<tr>
<th>Birds</th>
<th>Red kite (<em>Milvus milvus</em>)</th>
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<tbody>
<tr>
<td></td>
<td>Eurasian Hobby (<em>Falco subbuteo</em>)</td>
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<td></td>
<td>European roller (<em>Coracias garrulus</em>)</td>
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<td>Calandra Lark (<em>Melanocorypha calandra</em>)</td>
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<td>Greater Short-toed Lark (<em>Calandrella brachydactyla</em>)</td>
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<td>Tawny Pipit (<em>Anthus campestris</em>)</td>
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<td>Long-eared Owl (<em>Asio otus</em>)</td>
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<td>Reptiles</td>
<td>European Pond Terrapin (<em>Emys orbicularis</em>)</td>
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<td>Herman’s tortoise (<em>Eurotestudo hermanni</em>)</td>
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<td>Amphibia</td>
<td>Appenine Yellow-bellied Toad (<em>Bombina pachypus</em>)</td>
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<td>Italian Crested Newt (<em>Triturus carnifex</em>)</td>
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<td>Habitats</td>
<td>Habitat 92A0 - <em>Salix alba</em> and <em>Populus alba</em> galleries</td>
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<td>Habitat 91F0 - Riparian mixed forests</td>
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<td>Habitat 91AA- <em>Quercus pubescens</em> forests</td>
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<td>Habitat 91M0 - Pannonian-Balkanic turkey oak- sessile oak forests</td>
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The involvement needs a sort of catalyst which enables the stakeholders to start such a different approach in managing their lands, overcoming the usual skepticism towards nature conservation, which is a challenging issue, especially outside protected areas. This catalyst is made of two bodies, namely the AgriForum and the Action Net.

The DINAMO model is implemented through two participatory tools: the Agriforum and the Action Net.
AgriForum and Action Net
Objective 1:
- Implementation of the AgriForum and Action Net bodies.
- Cooperation of private and public for the implementation of conservation actions (four project partners, four municipalities and fifteen private operators have already express their interest in the project).

Objective 2:
- Conservation and increase of some target species which are endangered at national and local level and recovery of natural vegetation in Mediterranean floodplains and hilly agricultural landscapes.
http://www.life-dinamo.it/