



# AGRICULTURE

Towards an eco-friendly approach



THREE COUNTRIES, TWO LAKES, ONE FUTURE  
ΤΡΕΙΣ ΧΩΡΕΣ, ΔΥΟ ΛΙΜΝΕΣ, ΕΝΑ ΜΕΛΛΟΝ  
ТРИ ДРЖАВИ, ДВЕ ЕЗЕРА, ЕДНА ИДНИНА  
TRE VENDE, DY LIQENE, NJË E ARDHME



[www.prespapark.org](http://www.prespapark.org)

**Title:** AGRICULTURE

**Compiled by:** Krafting Group, Skopje

**Editor:** Sonja Seizova

**Edition:** Prespa Park Facts and Figures

**Published by:** UNDP

**Graphic design:** Aleksandar Ackovski

**Printed by:** Birografika, Skopje  
Skopje, 2009

**Front page photo:** Bean fields, Greece, photo by SPP



*The views expressed herein are those of the authors and do not necessarily reflect the official position of the United Nations Development Programme.*

*© This publication is copyright. It may be reproduced by any method without fee or prior permission for education purposes, with credits to the Publisher, but not for resale. The Publisher shall be notified of any such use.*



The production of this publication was supported by GEF and UNDP within the regional project Integrated ecosystem management in the Prespa Lakes Basin of Albania, FYR Macedonia and Greece.



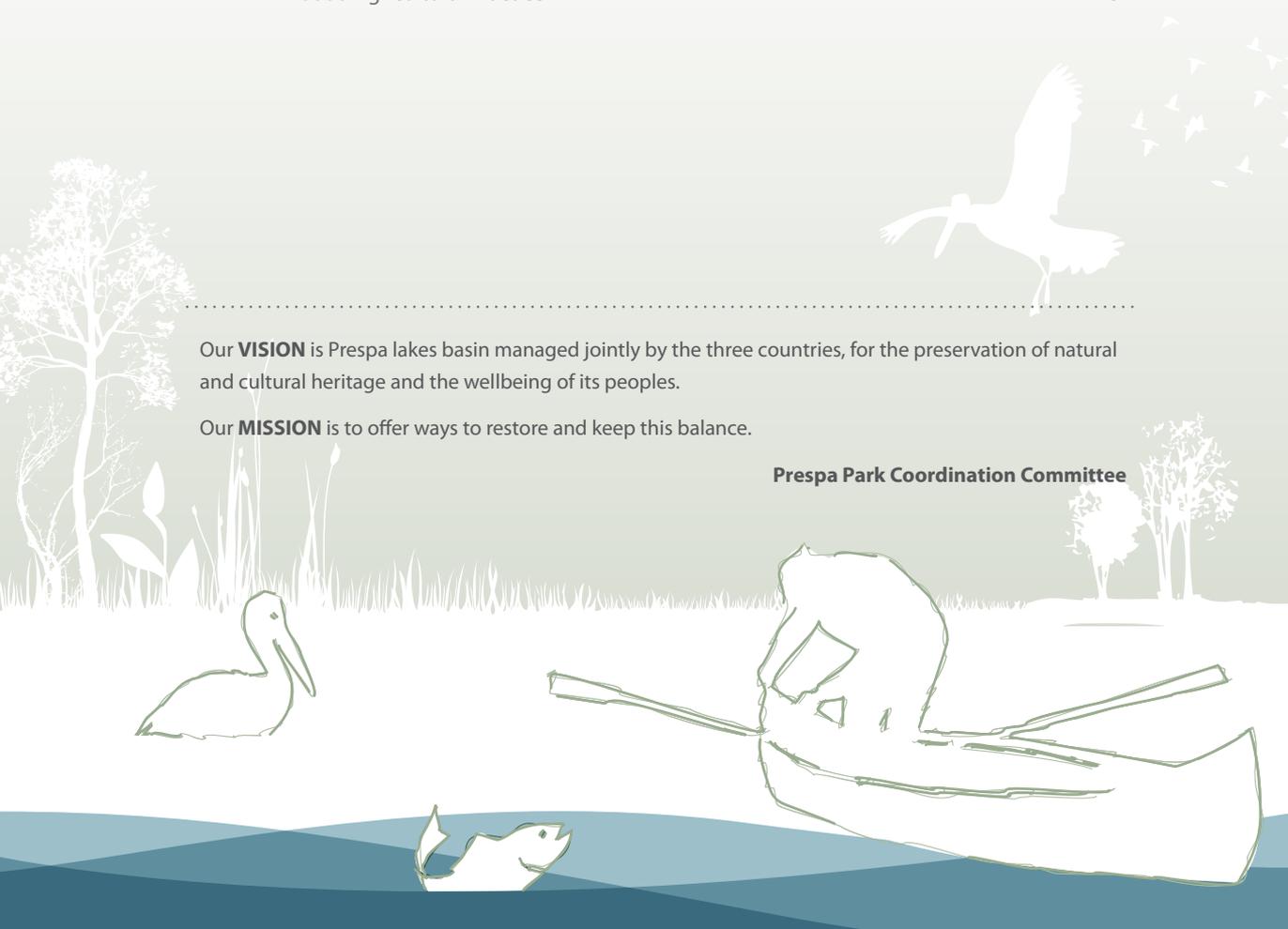
## CONTENT:

Towards an Eco-friendly Approach	4
Challenges and Remedies	5
Good Agricultural Practice	8

Our **VISION** is Prespa lakes basin managed jointly by the three countries, for the preservation of natural and cultural heritage and the wellbeing of its peoples.

Our **MISSION** is to offer ways to restore and keep this balance.

**Prespa Park Coordination Committee**





A vision of Prespa Park that enables residents across borders to improve their standard of living

by modernizing the production methods by reducing the exhaustion of natural resources guides the initiatives taken. Improved infrastructure, extension of environmentally friendly production techniques, preservation of traditional products and promotion of local production to modern markets add to the picture of prosperous Prespa.



Bean fields, Greece  
*Photo by SPP*

### **Towards an eco-friendly approach**

The life in the Prespa Park revolves around agriculture, but almost everything about it varies from country to country. The prevailing cultures are different: intensive bean-monoculture in Greece, dominating apple production in FYR of Macedonia, and mostly wheat in Albania. The same applies to the levels of agricultural mechanization in each country, the use of pesticides and fertilizers, irriga-

tion techniques, and agricultural waste treatment. The connections with the food industry, traditional products and access to markets are also different in Albania, FYR of Macedonia and Greece. Such a variety presents more of an agricultural mosaic with a great potential, than a basin-wide, coherent and environment-friendly production sector.

## Challenges and Remedies

Pesticide and fertilizer use, agricultural runoff due to flood irrigation instead of drip irrigation, and solid waste (pesticide packaging and excess crops) are the main challenges for the development of a sustainable agricultural production system.

Eutrophication from excessive use of manure and other fertilizers for agriculture is considered as one of the main threats for soil quality, with consequences



**Beans**  
*Photo by SPP*

---

### Prespa red apples

*Photo by Nehru Suleyman*



for the future production of crops. Sodium, phosphorus and potassium reach the lakes through soil, surface and underground waters, with a negative

impact on aquatic ecosystems and fish.

---

### Golden delicious apples

*Photo UNDP archives*





In the Greek part of the basin intensive bean cultivation is practiced on a total area of around 1,000ha, while organic bean cultivation was introduced in 1998 and is being expanded since. In Albania, use of pesticides and fertilizers is considered very low, which indicates the area's potential for organic farming.

The excessive use of fertilizers and pesticides has already led to habitat degradation caused by the resistant varieties of pests

Workers removing the canes from the bean fields, Greece

*Photo by SPP*



Replacement of the old irrigation system by the new, drop irrigation significantly reduces water consumption, with the reduction of all the negative effects that this entails: the cost, soil erosion, lakes' water quality.

Pesticides spraying  
*Photo UNDP archives*

and diseases, which are hard to eradicate, even by very intensive – and expensive – treatment.

The irrigation and drainage system are the basic elements of the management of water resources in the area. The old, water-consuming, open-channel irrigation system results in high water, energy and labour consumption, higher production costs, erosion of the soil and washing down of the pollutants into the lakes, with a negative impact on its water quality, fish stocks and avifauna.

In Greece, some 700-1200ha of bean cultivation is irrigated. In Albania, the old irrigation system that covered half the arable land in the 1980s has suffered destruction, and only 2.1% of the land is irrigated nowadays.

Lacking solutions for solid waste, farmers often dispose of them along the roads or rivers.

Introduction of sustainable solid waste collection and a transfer system is underway in the Resen municipality (FYR of Macedonia), while it already exists in the Greek part of the basin.



Open channel irrigation, Greece  
Photo by SPP



Apples and farmers on the market  
Photo UNDP archives





## Good Agricultural Practice

Within the frames of the Prespa Park a pilot approach in the development of agriculture is initiated by promoting a large scale implementation of modern concepts in organic farming and stockbreeding and by enabling the exchange of experiences across the basin.

The key elements during implementation of GAP are collecting evidence and documentation for the following:

- General documentation for the farm;
- Information on irrigation and fertilizing applied;
- Information on the quality of water used, and on the potentially contaminating equipment;
- Information on the harvest and after harvest activities;
- Use of pesticides;
- Waste management;
- Trainings on safety at the workplace, and the rules and instructions of work according GAP.



**Apple blossom**  
*Photo by Nehru Suleyman*

Priority is given to the use of local varieties and races and to the production of traditional local products with modern methods complying with current standards. A significant way to strengthen the economy and create a unified approach to the area is through the promotion of registered designations of origin and labelling of local products. In short – working on quality rather than quantity.

The introduction of Good Agricultural Practice (GAP) is a major contribution to informing farmers on when, why and what to do in order to secure the production of healthy and safe food, reduce their costs, and protect the environment.

On a national level, GAP supports strategies aiming to achieve benefits for the whole production, distribution and consumption cycle.



**Agrometeorological station  
in the Resen area apple orchard**  
*Photo by Dimitrija Sekovski / UNDP*



**Setting up of agrometeorological  
station in an apple orchard**  
*Photo by Dimitrija Sekovski / UNDP*



In practice, this means advice on the quantity of the fertilizers to be used according to the needs of the specific plant and the quality of the soil, based on soil analysis, and application of pesticides as a reaction to precise information on the conditions that favour certain diseases and insects.

In FYR of Macedonia, the necessary information is provided by the newly established agro-chemical laboratory for soil and plant testing, and by five agro-



Presentation of  
Albanian Prespa herbarium  
*Photo by Ardit Konomi / UNDP*



Training for women  
*Photo by Ardit Konomi*

metrological stations located in the orchards, that provide accurate predictions on disease risks and advise on correct time for spraying



**Farmland by the lakes**  
*Photo by Nehru Suleyman*



**Prespa Park boundaries**

*Adapted, courtesy of the Society for the Protection of Prespa*

The Prespa Lakes basin (Southeast Europe) is a globally significant ecological and cultural landscape comprising four National Parks and several protected areas with unique habitats, flora and fauna.

In 2000 the Governments of Albania, FYR Macedonia and Greece agreed to work together to maintain the natural values of the area and introduce environmental management practices in the Prespa Park by integrating ecological, economic and social goals.

Two Wetlands of International Importance, designated under the Ramsar Convention on Wetlands, lie within the Transboundary Prespa Park boundaries. The area has been acknowledged as a Gift to the Earth by WWF-International, and European Union has included Prespa Lakes in its policies on water and species protection.

The Prespa Park Coordination Committee is a trilateral body representing governments, local authorities and civil society. It supports environmental protection and sustainable development in the Prespa Park for the preservation of natural and cultural heritage and the wellbeing of its peoples.

Since 2006 a GEF/UNDP Project supports Integrated Ecosystem Management in the transboundary Prespa Lakes Basin, to last until 2011.



**Prespa Park Coordination Committee Secretariat**

530 77 Aghios Germanos, Prespa, Greece

Phone: +30 23850 51211; Fax: +30 23850 51343

[www.prespapark.org](http://www.prespapark.org)

