Training and capacity building in sustainable agricultural water management: Addressing food security and social instability in Pakistan (SAWaM-Pak)

Under the Patronage of Directorate General for Development Cooperation -Ministry of Foreign Affairs, Italy











Department of Environmental Sciences
PMAS-Arid Agriculture University Rawalpindi,
Pakistan

Institute for Plant Protection National Research Council Florence, Italy



# Two-Days International Training Workshop "Farmer Day & Equipment Demonstration" Dec. 4-5, 2013





#### OBJECTIVES:

- Development and implementation of water-saving techniques for irrigated farms as well as new techniques to harvest and use
- Development of economic analysis tools that can be used to assess the contribution of water harvesting techniques to increase the agricultural production.
- Transfer the various new systems design/management in different hydrological conditions and to ensure their integration in the context of local and regional and socio- economic conditions.
- Integration of scientific activities with policy-making and public awareness



## OVERVIEW (SAWaM-Pak)

Pakistan is facing major challenges of climate change on its land and water resources, which consequently effect agriculture and food security. About 80% of Pakistani territory is severely affected by arid and semi-arid conditions. Unfortunately, the projected decrease in future water availability and rainfall are going to exacerbate the situation in the country. Moreover, inappropriate management of irrigation water contributes to erosion of top soil, loss of organic matter, salinisation, decrease of soil fertility and pollution of ground and surface fresh waters. All these problems stem from both infrastructural and political issues, and little understanding of the most productive applications of water during crop growing cycles.

Training and capacity building in sustainable agricultural water management: Addressing food security and social instability in Pakistan

Thus, conservation and preservation of the water resources, and its better use by the farmers will enhance the sustainability of irrigated farming systems. There is, therefore, an urgent need to improve, adapt and promote techniques that, without the need for large infrastructures and investments, could lead to an increase in the primary productivity. The SAWaM-Pak Project is an effort for a more sustainable exploitation of water and soils by Pakistani farmers, and supports the increasing demand for locally produced food. Sustainable watersaving techniques for irrigated farms as well as new techniques to harvest, store and use of rainfall will be developed and implemented to improve water use efficiency and thereby strengthen the potential and sustainability of the whole agriculture sector in order to contribute to the increase of food production and security and in turn support farmers' income. So the project is addressing a very important issue of drought stress and desertification in arid areas of Pakistan.

## Chief Guest Prof. Antonio Sabatella

Councilor
Chief Director
Office of Parliamentary Control
Council of Ministers of the Italian Republic Rome

## **Guest of Honor Prof. Dr. Giuseppe Scarascia-Mugnozza**

Professor of Silviculture

Director-Department for Innovation in Biological,

Agro-food and Forest

University of Tuscia

### **PROJECT ACTIVITIES**

 Soil and Water Management Techniques for Semi Arid Regions

June 10-13, 2013

Dec 4-5, 2013



- 2. Infrastructure Development & Equipment Installation
  8ep. 12-26, 2013
- 3. Training & Equipment Demonstration

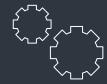
Day 1

Farmer's day activity & Lectures

Day 2

Field Activity at University Research Farm: Equipment

Demonstration



### **PROJECT EXPERTS**

**Prof. Mauro Centrito** (CNR, Italy) Dr. Kostas Chartzoulakis (NAGREF, Greece) **Prof. Tariq Mahmood** (PMAS-UAAR) Dr. Rosario Napoli (CNR, Italy) Dr. Bruno Pennelli (CNR, Italy) Dr. Nicola Laruccia (CNR, Italy) Dr. Gianni Della Rocca (CNR, Italy) Dr. Giampiero Lembo (CNR, Italy) Dr. Alessandro Bozzini (CNR, Italy) **Dr. Antonio Scarfone** (CNR, Italy)

