

# The Irrigation System Readjustment Project



Project Sites Bucharest, Giurgiu

## 1. Background of Project

The average annual rainfall in Romania ranges between 550-600 mm, and the shortage of water is especially serious from June to August, with sometimes no rain at all. The Romanian Government has recognized the necessity of irrigation since the previous regime.

However, existing irrigation and drainage systems had not been renewed due to the economic downturn since the democratic revolution, and the progress of decrepitude had deteriorated irrigation efficiency<sup>1)</sup>. According to the Land Law issued in 1991, a land privatization program has made steady progress, however, it will take more time for private farmers to manage their own farms, and to organize cooperatives. There has been an inefficient condition with little irrigation water used, and small-scale irrigation facilities scattered.

Under these circumstances, the Romanian Government requested to Japan a project-type technical cooperation in April 1994, to render technical advice, guidance and training in order to readjust its irrigation systems.

## 2. Project Overview

### (1) Period of Cooperation

1 March 1996 – 28 February 2001

### (2) Type of Cooperation

Project-type Technical Cooperation

### (3) Partner Country's Implementing Organization

Ministry of Agriculture and Food,  
National Company "Land Reclamation" (SNIF),  
Academy of Agricultural and Forestry Sciences,  
Research Institute of Irrigation and Drainage (ICITID)

### (4) Narrative Summary

#### 1) Overall Goal

The operating ratio of irrigation facilities is increased by the rehabilitation and modernization of irrigation facilities, and agricultural production and the net income of farmers are increased by the improvement of maintenance efficiency and irriga-

tion methods in the field.

### 2) Project Purpose

Irrigation efficiency is improved through research, implementation, management and training.

### 3) Outputs

- The irrigation efficiency of water conveyance facilities is improved.
- The irrigation efficiency of terminal water conveyance and control facilities is improved.
- The irrigation efficiency of field water application is improved.
- Improved methods of irrigation efficiency through training are extended.
- The information systems for the effective execution of irrigation programs are improved.

### 4) Inputs

#### Japanese Side

Long-term experts	9
Short-term experts	12
Trainees received	7
Equipment	200 million yen
Local cost	27 million yen

#### Romanian Side

Counterparts	22
Land, facilities and fields	
Local cost	5.82 billion leis (Approx. 26 million yen)

## 3. Members of Evaluation Team

### Team Leader:

Hiroshi OSARI, Associate Director of Research, National Research Institute for Agricultural Engineering, Ministry of Agriculture, Forestry, and Fisheries (MAFF)

### Irrigation System:

Kouhei KATOU, Assistant Director for Irrigation, Drainage and Reclamation Engineering, Tohoku Regional Agricultural Administration Office, MAFF

### Agricultural Development Strategy:

Masashi NAKAI, Senior Technical Officer, Technical Cooperation Division, International Department, Eco-

conomic Affairs Bureau, MAFF

#### **Evaluation Analysis:**

Mitsuo NISHIYA, (Nippon Giken Co.)

#### **Evaluation Plan:**

Yasuto TAKEUCHI, Deputy Director, Agricultural Technical Cooperation Division, Agricultural Development Cooperation Department, JICA

## **4. Period of Evaluation**

29 October 2000 – 10 November 2000

## **5. Results of Evaluation**

### **(1) Relevance**

The relevance of this project is recognized from the fact that the purpose of this project and project activities meet the "Ten Year Development Program" that was announced in 1995 by the Romanian Government, and have not changed since the project started.

### **(2) Effectiveness**

The Japanese experts developed manuals, video materials, and training plans on drainage and maintenance of irrigation facilities, with which counterparts actively provided training courses. Researches have been developing as well. For example, it was analyzed characteristics of soil and crop moisture, and finally found the most applicable irrigation efficiency for each farm field. Irrigation technologies were also improved through the research on crop yields. Overall, this project is judged to have satisfied the goals.

### **(3) Efficiency**

The delayed assignment of the Romanian counterparts, together with extraordinary rainfall in 1997 and financial difficulty in 1999, hindered efficient progress in the improvement activities of irrigation facilities. However, project staff took appropriate measures against the various situations, and input resources were managed efficiently.

### **(4) Impact**

This project was the first Japanese technical cooperation implemented in Romania. The Japanese experts and counterparts had productive discussions to jointly solve the problems of irrigation. The Romanian counterparts, which was accustomed to bureaucratic administrative methods in the previous regime, learnt efficient institutional management through the project. The technical skills transferred were widely introduced to various areas, leading to the adoption of modern research methods and technologies by other institutions.

### **(5) Sustainability**

Although there was not enough budget for Romania in transition, grant aid from the EU <sup>2)</sup> and loan from the World Bank was already started for the Ministry of Agriculture and Food. The financial situation should be better,



An expert and counterparts installing a moisture measuring equipment for the soil

as these aids are targeting water resource management (irrigation, usage of water resources and drainage) and farmer organizations. The ministry is also tackling institutional modernization under reform, and stable progress can be expected.

The irrigation technologies, improved though the project, have been transferred to the counterparts and the engineers. A manual for the improvement of irrigation technologies was developed by ICITID, and Romanians themselves will hopefully make further progress.

## **6. Lessons Learned and Recommendations**

### **(1) Lessons Learned**

A joint coordination committee should be regularly held for the smooth implementation of a project, especially when the implementing body is not a single organization.

### **(2) Recommendations**

In order to make good use of the transferred techniques of a project, associated farms and water users associations should be set up, aiming at supporting the smallest irrigation groups.

For monitoring and large-scale implementation of the project results, it is necessary to set up a division for development and transfer of technology within SNIF.

As the project purpose has been satisfied, there is no need for follow-up.

<sup>1)</sup> How efficiently water is used to reach the root area in soil from the water resource.

<sup>2)</sup> 15 billion yen is disbursed annually during 2000—2006 by the Special Association Programme for Agriculture and Rural Development (SAPARD).