

## **Introduction**

Desertification, a global environmental problem, affects 25% of the world's land and a sixth of the world's population. It particularly affects developing countries, notably in Africa, threatening people's survival.

To find a solution through international collaboration, the United Nations Convention to Combat Desertification was adopted in 1994 and came into force in 1996. Japan accepted it in 1998. The convention specifies that developed countries undertake to provide financial and technical assistance to developing countries affected by desertification. The convention attaches importance, in providing technical assistance, to addressing technologies suitable to the local conditions. Japan is also expected to contribute to combating desertification with its technology. However, as Japan has no areas seriously affected by desertification within its territory, it does not have sufficient information and knowledge on the actual situation of areas under desertification.

The Ministry of the Environment of Japan has been tackling desertification even before the acceptance of the convention. One of its initiatives was the "Model Project to Combat Desertification" carried out from fiscal year 1995 to 2002 in Burkina Faso, a country in the seriously affected West Sahara, with the advice of an advisory committee composed of Japanese experts. This model project developed hardware technology on subsurface dams, which has had operational results in Japan, for the effective use of groundwater in arid and semi-arid areas. It also collected and examined software information and knowledge on the management system of the subsurface dam by local people.

In this model project, after site selection, a subsurface dam was constructed between 1997 and 1998 at Nare Village, Tougouri District, Namentenga Province, in Burkina Faso. After this, studies were undertaken to assess its effectiveness in water storage and its impact on the environment, and to seek appropriate ways to use the reserved water. The model project was finished in March 2003.

This report provides the information and knowledge obtained through the model project not only to Burkina Faso, but also to other countries suffering from desertification, as well to the international community. We sincerely hope that it will serve to combat desertification.

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Global Environmental Issues Division, Ministry of the Environment, Japan  
Overseas Environmental Cooperation Center