

National Report  
based on the United Nations Convention to Combat Desertification in those Countries  
Experiencing Serious Drought and/or Desertification, Particularly in Africa

Japan, July 1999

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## II. OVERVIEW

### 1. INTRODUCTION

Japan recognizes global environmental issues, including combating desertification, as one of the most important areas to which the country must contribute, and has cooperated in strengthening the international framework for the global environmental conservation. Desertification is linked with sustainable development in a large number of developing nations, but it needs to be addressed by the internal community as a group because it also threatens the global environment outside the areas directly affected.

Japan has therefore implemented various projects to combat desertification including through Official Development Assistance (ODA), and has supported the fight against desertification through financial contributions to international organizations. Also, during the intergovernmental negotiations for the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (Convention to Combat Desertification), Japan served as a bureau member and the chairman of the Second Working Group, making a positive contribution to the drafting of the document. In addition, prior to concluding the Convention, Japan contributed almost US\$5 million to the Trust Fund and the Special Voluntary Fund established by the General Assembly resolution 47/188, during the period from 1993 to 1998.

Japan deposited its instrument of acceptance with the Secretary General of the United Nations on September 11, 1998. The Convention entered into force concerning Japan on December 10 of the same year, with Japan becoming a party during the second Conference of the Parties to the Convention. As a developed country, Japan has an obligation to provide substantial financial resources and other forms of support to assist affected developing country parties, effectively to develop and implement their own long-term plans and strategies to combat desertification and mitigate the effects of drought. Japan also needs to encourage transfer of appropriate technologies to help fight against desertification in accordance with the country's own laws and policies. Japan has been continuing to contribute as a party since concluding the Convention.

This paper reports Japan's efforts to help combat desertification and mitigate the effects of drought since the Convention to Combat Desertification entered into force in 1996.

#### 2.1 THE CONSULTATIVE PROCESSES AND PARTNERSHIP AGREEMENTS IN WHICH JAPAN IS INVOLVED

Japan has taken the initiative in the consultative processes and partnership agreements for development of Africa. Typical examples include (i) providing support for the Asia-Africa Forum on Combating Desertification (its first forum held in Beijing in 1996, the second in Niger in 1997), and (ii) holding the second Tokyo International Conference on African Development (TICAD II, held in Tokyo in 1998).

#### 2.2 MEASURES TAKEN TO SUPPORT THE PREPARATION AND IMPLEMENTATION OF ACTION PROGRAMMES AT ALL LEVELS

In order to combat desertification and mitigate the effects of drought, Japan has cooperated in various ways including study and research related to recovery of desertified land and effective use of water resources and projects for getting vegetation started in desertified lands, using ODA and other budgets. Japan's cooperative measures include bilateral support projects, study/research by Japanese institutions, support for NGO's activities, and contributions to related international organizations.

An overview of Japan's support in relevant fields and cooperation with related organizations is as follows:

(1) Bilateral cooperation

(i) Establishment and strengthening of food security systems

In order to alleviate chronic food shortages in areas affected by drought and/or desertification, Japan helps strengthen food security systems for sub-Saharan countries such as the Central African Republic and Tanzania through financial assistance to purchase food supplies.

(ii) Promotion of alternative livelihoods

Japan cooperates in raising the standard of living for local people by helping to improve facilities such as agricultural and other vocational training schools in order to secure alternative livelihoods for residents of areas affected by desertification and drought.

(iii) Support for structural adjustments (improvement of national economic environment with a view to strengthening programmes aimed at the eradication of poverty and at ensuring food security)

In order to alleviate chronic food shortages and increase food production in areas affected by desertification and drought, Japan contributes to improvement of the economic environment through financial assistance for purchase of fertilizers, agricultural chemicals, and farming equipment in a number of sub-Saharan countries such as Niger and Burkina Faso.

(iv) Population/family planning

In addition to direct cooperation such as diffusion of the concept of family planning in areas affected by desertification and drought caused by deforestation to secure farmland to increase food production to meet a drastic increase in population in countries such as Ghana and Kenya, Japan helps address the issue of population growth through comprehensive cooperation including promotion of maternal and child health.

(v) Conservation of water resources (including development of water for everyday living)

Japan cooperates in securing a stable supply of fresh water by constructing facilities such as deep wells in arid regions with slight annual precipitation such as Morocco, Kenya and Senegal, where chronic drought tends to occur.

(vi) Reforestation and forest conservation

Desertification is progressing accompanied by lack of precipitation as well as by deforestation due to population increase, overgrazing, etc., in the countries such as Senegal, Benin and Mali. In order to promote reforestation, Japan has been assisting in establishing tree seedlings

production systems through construction of tree nurseries and professional training for the local officials, and in developing forest resources inventories and forest management plans.

(vii) Agricultural development

With a view to securing water resources for agricultural production, Japan is helping to improve the settlement and the standard of living of local people in Egypt, Tunisia and Malawi, by cooperating with preparation of irrigation facilities by improving waterways and securing water resources through development of ground water and effective use of treated sewage.

(viii) Development and efficient use of various energy sources

In order to bring electric power to local areas in countries such as Zimbabwe and Cameroon, Japan cooperates in the development of alternative energy sources, primarily solar power.

(ix) Capacity building and education

Japan dispatches experts and trains researchers, government administrators and local people of affected developing countries in areas including agriculture, forestry and utilization of water resources in order to enhance scientific and technical capabilities to combat desertification in various countries.

(x) Women in development

In order to release women of countries such as Mozambique and Ethiopia from the heavy burden of their traditional task of drawing water from wells, Japan aids in well-digging and vegetable cultivation in order to ease the amount of labor in farming, thereby helping to elevate the women's social status, prevent soil erosion, and secure a fresh water supply.

(xi) Study and research of desertification

Japan is actively involved in wide-ranging study and research of themes including conservation of soil and water resources, agricultural development, socioeconomic methods, etc., and encourages the participation of local people and researchers from various countries to obtain the knowledge required to effectively combat desertification according to the country or area.

(xii) Supports for NGO activities

Japan provides financial support for domestic and local NGOs through grant assistance for grass-roots projects, NGO project subsidies, Japan Fund for Global Environment established in Japan Environment Corporation, Postal Savings for International Voluntary Aid provided by the post office, and Japan International Forestry Promotion and Cooperation Center in order to cope with damage caused by desertification and drought.

(2) Cooperation through contributions to international organizations

The United Nations and other international organizations have been involved in activities for combating desertification in various forms. Japan cooperates by contributing funds to such international organizations.

(i) Secretariat of the Convention to Combat Desertification

Through contributions to the Special Voluntary Fund and the Trust Fund managed by the

Secretariat, Japan has been active in supporting various meetings such as regional meetings for preparing regional action programmes organized by the Secretariat of the Convention to combat Desertification, and in supporting participation of the developing countries in the Conference of the Parties. Since 1994, Japan has contributed a total of US\$4,892 thousand, making it the world's top donor.

(ii) United Nations Environment Programme (UNEP)

UNEP had been monitoring desertification before the Convention to Combat Desertification was drafted. In addition to creating the "World Atlas of Desertification" in 1992 and 1997, UNEP is involved in dissemination of information and education, and provides various types of technical support. Besides making large contributions to UNEP, Japan provides data to UNEP/GRID (Global Resources Information Database).

(iii) Food and Agriculture Organization of the United Nations (FAO)

Japan helps to combat desertification through FAO activities concerning agriculture, forestry and fisheries through contributions to the core budget of, and voluntary contributions to the FAO.

(iv) World Food Programme (WFP)

Japan actively contributes to the WFP, which conducts activities such as providing emergency food assistance to people suffering from hunger due to the effects of drought, as well as repairing irrigation waterways and afforesting through the Food For Work (FFW) project.

(v) International Fund for Agricultural Development (IFAD)

Japan has contributed a total of US\$220 million to the International Fund for Agricultural Development (IFAD), which, as a development financial organization created especially for the field of agriculture, combats desertification by financing various agricultural projects which help prevent desertification of farmland.

(vi) United Nations Development Programme (UNDP)

Japan contributes to UNDP, which trains skilled personnel by conducting pilot projects, holding water supply management workshops in desertified areas, and constructing a desertification data network including various areas of Africa, the Middle East, Central and South America, etc.

(vii) World Meteorological Organization (WMO)

Japan makes contributions to WMO's regular budget in accordance with the WMO Convention and to the Voluntary Cooperation Fund of WMO, which in turn support activities of various meteorological services to establish and maintain systems of collecting and providing meteorological data and information relating to drought and desertification through its programmes including the World Climate Programme and the Agricultural Meteorology Programme.

(viii) United Nations Educational, Scientific and Cultural Organization (UNESCO)

Japan makes contributions to the core budget of, and voluntary contributions to UNESCO, which holds workshops and conducts study/research on combating desertification as part of its MAB (Man and the Biosphere) programme and its special programme concerning "Women and water

resource supply and use."

(ix) Consultative Group on International Agricultural Research (CGIAR)

Japan cooperates by contributing to the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), which conducts research of crops suited to cultivation in arid areas under the umbrella of CGIAR.

(x) United Nations Industrial development Organization (UNIDO)

Japan has made the largest contribution to UNIDO, the organization dedicated to promoting development of industry in developing countries, which in recent years has been involved in developing environment-friendly, sustainable industry in Africa.

(xi) International Bank for Reconstruction and Development (IBRD; the World Bank)

The World Bank is involved in development support activities such as coordinating assistance, proposing and executing arid area management training programmes, integrating land management issues into national environment action plans, integration and promotion of best practices for land management and land degradation measures. Japan supports such activities by contributing to the World Bank and to the Policy and Human Resources Development (PHRD) Fund established in the World Bank.

(xii) Global Environment Facility (GEF)

Concerning the Global Environment Facility (GEF), which functions to provide new and additional grant and concessional funding to meet the agreed incremental costs incurred by developing countries to address global environmental issues, Japan has contributed approximately US\$415 million to GEF1 and has pledged to contribute approximately US\$413 million to GEF2.

(xiii) African Development Bank (AfDB)

Japan provides financial support to the Africa Development Bank group, which aids development of projects such as a water supply project in Tunisia and an irrigation project in Zimbabwe to combat desertification.

### III. THE CONSULTATIVE PROCESSES AND PARTNERSHIP AGREEMENTS IN WHICH JAPAN IS INVOLVED

Japan has taken the initiative in the consultative processes and partnership agreements for development of Africa. This paper includes a description of:

(1) the support for the "Asia-Africa Forum on Combating Desertification" for realizing cooperation between Asia and Africa concerning combating desertification which was held twice; and

(2) the Second Tokyo International Conference on African Development (TICAD II), which spelled out the direction of future African development in accordance with the principles of ownership and global partnership which builds the framework for cooperation among all actors, including governments of African countries, the private sector and civil society, donor countries and organizations.

(1) Asia-Africa Forum on combating Desertification

(i) First Asia-Africa Forum on Combating Desertification

The Asia-Africa Forum on Combating Desertification was held by the People's Republic of China in Beijing in August 1996 with the cooperation of the United Nations Office of the Special Coordinator for Africa and the Least Developed Countries (OSCAL), Secretariat of the Convention to Combat Desertification, and Japan. This meeting was held for the dual purposes of promoting cooperation among African and Asian countries affected by desertification in adhering to the terms of the Convention to Combat Desertification, and of actually putting into action the contents the Tokyo Declaration adopted at the 1993 Tokyo International Conference on African Development (TICAD) and the Asia-Africa cooperation advocated at the 1994 Asia-Africa Forum in Indonesia. Japan contributed approximately US\$0.1 million to finance to forum, and also served as co-chairman.

By adopting the "Beijing Framework for Action on Asia-Africa Co-operation on Combating Desertification and/or Mitigating the Effects of Drought," which includes principles of Asia-Africa cooperation in combating desertification and a list of fields in which activities should be promoted, the assembly took the first step toward cooperation between the two regions in carrying out the terms of the Convention to Combat Desertification.

(ii) Second Asia-Africa Forum on Combating Desertification

The second Asia-Africa Forum on Combating Desertification was held in Niamey, Niger, in September 1997, with the cooperation of OSCAL, the Office of the Convention to Combat Desertification, Japan and Niger. Japan contributed approximately US\$0.2 million to support the forum.

Following up on the first forum, the topics for the second forum included an early warning system traditional know-how, research and development, field experience in combating desertification. Priority activities for Asia-Africa cooperation were also discussed.

(2) Second Tokyo International Conference on African Development (TICAD II)

Jointly hosted by Japan, the United Nations (OSCAL and United Nations Development Programme), and the Global Coalition for Africa (GCA), the second Tokyo International Conference on African Development (TICAD II) was held in October 1998. 80 countries from Africa, Asia, and the West, 40 international organizations, and 22 NGOs participated in the event. Participants included heads of state or leaders of 15 countries.

As a result of comprehensive discussions concerning African development issues based on the fundamental spirit of African countries' ownership and the international community's partnership, the "Tokyo Agenda for Action" was adopted. It is an outcome of the participants' agreement to priority government policy and action including numerical targets in 3 basic fields of development:

- i) social development including education, health care, and support for those below the poverty level;
- ii) economic development in the private, industrial and agricultural sectors, and external debt;

and

iii) good governance and conflict prevention and post-conflict development.

The Illustrative List of 370 Ongoing and Pipeline Projects/Programmes for African Development was also drawn up at the conference.

In the Tokyo Agenda for Action, "environmental management" is listed along with "capacity building" and "gender mainstreaming" as cross-cutting themes to be required for sustainable development. The Agenda stipulates that "policies, plans, and decisions-making processes for African development should reflect pressing environmental issues, including desertification, land degradation, water management, deforestation, biodiversity, and natural disaster prevention and mitigation."

The agricultural development clause of the Agenda touches on the importance of the Convention to Combat Desertification by including a guideline for action in African countries, stating that "strengthen intra-regional and Asia-Africa cooperation for the implementation of the United Nations Convention to Combat Desertification, and improve soil fertility with appropriate soil and crop husbandry techniques."

African countries and their development partners are to take on the task of development in accordance with the Tokyo Agenda for Action. It has been a great achievement that TICAD II reconfirmed their concerns about environmental issues including combating desertification, and that concrete items were included in the Tokyo Agenda for Action, which serves as a guideline to development issues in Africa where the high population growth rate is putting pressure on natural resources.

#### IV. MEASURES TAKEN TO SUPPORT THE PREPARATION AND IMPLEMENTATION OF ACTION PROGRAMMES AT ALL LEVELS, INCLUDING INFORMATION ON THE FINANCIAL RESOURCES THEY HAVE PROVIDED, OR ARE PROVIDING, BOTH BILATERALLY AND MULTILATERALLY

In order to combat desertification and mitigate the effects of drought, Japan has cooperated in various ways including study and research related to recovery of desertified land and effective use of water resources, and projects for getting vegetation started in desertified lands using ODA and other budgets. Cooperative measures include bilateral support projects, study/research by Japanese institutions, support for anti-desertification activities of NGOs, and contributions to related international organizations.

First we shall take a look at the Japan's assistance policy concerning the environment and concerning Africa, the subject of this report. We shall also describe concrete examples of bilateral cooperation and multilateral cooperation.

##### (1) Japan's assistance policy concerning the environment

Japan has disbursed approximately 1.44 trillion in ODA for the environment, more than 40 percent over the target announced at the United Nations Conference on Environment and Development (UNCED) held at Rio De Janeiro in 1992 ("ODA for the environment to be

increased and fortified, aiming for between ¥900 billion and ¥1 trillion for a 5-year period beginning in 1992"). ¥243 billion was disbursed in FY 1997.

At the Special Session of United Nations General Assembly on Environment and Development in June 1997, the Prime Minister at the time, Ryutaro Hashimoto, announced the government's comprehensive international environmental cooperation policy "Initiatives for Sustainable Development toward the 21 Century (ISD)," which focuses primarily on ODA.

The ISD contains action plans for the following 5 fields:

- 1) Air and water pollution, and waste disposal;
- 2) Global warming;
- 3) Nature conservation and afforestation;
- 4) "Fresh water" issues; and
- 5) Public awareness and strategy building.

Efforts are being made to address issues in each of these fields.

(2) Japan's assistance policy concerning Africa

Moving toward democracy with parliamentary and presidential elections under a multiparty system and introducing a market economy, many African countries are in a period of political and economic reform. The majority of African countries are however Less and Least Developed Countries (LLDC), and are beset by various problems such as poverty and infectious diseases. To address this situation, in 1997 Japan provided African countries with ¥40.2 billion in ODA loans (Exchange of Note basis), ¥2.1 billion in grant aid (Exchange of Note basis), and ¥28.4 billion in technical cooperation (JICA basis). Japan has cooperated in the fields of social development including education, health care, and support for those in the poverty level, economic development in the private, industrial and agricultural sectors, and external debt. When providing assistance to Africa, self-help (ownership) by the various African nations is drawn upon as much as possible, and the international community is encouraged to participate as an equal partner (partnership).

Environmental fields receiving assistance include desertification, land degradation, water management, and forest management.

## 1. BILATERAL COOPERATION

The Convention to Combat Desertification stipulates concrete measures for bilateral cooperation in the National Action Programmes (Article 10), Subregional and Regional Action Programmes (Article 11).

This paper contains a description of the results of Japan's efforts and assistance in fields related to action programmes of the Convention to Combat Desertification (see Notes 1. - 3. below).

Specific examples are:

- (1) Establishment and strengthening of food security systems;
- (2) Promotion of alternative livelihoods;

- (3) Support for structural adjustments (improvement of national economic environments with a view to strengthening programmes aimed at the eradication of poverty and at ensuring food security);
- (4) Population/family planning;
- (5) Conservation of water resources (including development of water for everyday living);
- (6) Reforestation and forest conservation;
- (7) Agricultural development;
- (8) Development and efficient use of various energy sources;
- (9) Capacity building and education;
- (10) Women in development;
- (11) Study and research of desertification; and
- (12) Support for NGO activities.

Notes:

1. Based on the fact that the Convention to Combat Desertification entered into force in December 1996, this report lists the budget for FY 1996 through 1999, except ODA which shows the actual amount.

2. Some study and research currently conducted in regions other than Africa, are also listed because of their relevance to other regions.

3. With regard to the support through NGOs, etc., the actual amount disbursed to them is given in principle. However, there are some cases that part of the fund was returned when part of the planned activities was not implemented for some reasons.

(1) Establishment and strengthening of food security systems

Although a large number of the people are engaged in farming, there are chronic food shortages in areas affected by drought and desertification. In order to relieve food shortages, sub-Saharan countries are provided with financial assistance for purchase of food to strengthen food security systems.

üE Tanzania (Food Aid)

(1997: \500 million)

Financial assistance provided for purchase of food in order to cope with food shortages resulting from drought.

üE Central African Republic (Food Aid)

(1997: \500 million)

Financial assistance provided for purchase of food in order to cope with food shortage resulting from drought.

üE Niger (Food Aid)

(1996: \150 million; 1997: \400 million)

Financial assistance provided for purchase of food in order to cope with chronic food shortage in Niger, whose population is mainly engaged in farming using rainwater.

üE Burkina Faso (Food Aid)

(1996: \150 million; 1997: \390 million)

Financial assistance provided for purchase of food in order to cope with food shortages resulting from drought.

üE Mauritania (food Aid)

(1996: \200 million; 1997: \200 million)

Financial assistance provided for purchase of food in order to cope with severe food shortages resulting from desertification brought on by constant drought in recent years and decreased production of main grain largely affected by exhaustion of farmland.

(2) Promotion of alternative livelihoods

üE Japan cooperates in raising the standard of living for local people and helps to strengthen facilities such as agriculture and other vocational training institutes by improving and providing them with equipment in order to secure an alternative means of making a living for residents of areas affected by desertification and drought.

üE Uganda (Project for Improvement of Agricultural Extension and Training Institute)

(1997: \420 million; 1998: \172 million)

Japan cooperates by helping to improve agricultural training institutes.

(3) Support for structural adjustments (Improvement of national economic environments with a view to strengthening programmes aimed at the eradication of poverty and at ensuring food security)

üE Although a large number of the people are engaged in farming, there are chronic food shortages in areas affected by drought and desertification. In order to alleviate chronic food shortages and increase food production in areas affected by desertification and drought, Japan contributes to improvement of the economic environment through financial assistance for purchase of fertilizer, agricultural chemicals, and farming equipment in a number of sub-Saharan countries.

üE Central African Republic (Aid for increased food production)

(1996: \400 million; 1997: \400 million; 1998: \260 million)

Establishing a food production increase programme in order to improve the farming situation, Japan provides financial assistance to purchase farming equipment, etc., to execute the programme.

üE Niger (Aid for increased food production)

(1997: \540 million)

Niger has sustained damage from drought over an extended period of time. Japan provides financial assistance to purchase fertilizer, etc., to increase food production.

üE Burkina Faso (Aid for increased production)

(1996: \450 million, 1997: \350 million; 1998: \450 million)

Burkina Faso, where the Sahelian region is in the northern area, has a vulnerable agricultural productive basis. Japan provides financial assistance to purchase fertilizer, etc., in order to enhance their productivity.

üE Mali (Aid for increased production)

(1996: \350 million, 1997: \350 million; 1998: \450 million)

Mali has sustained damage from drought over an extended period of time. Japan provides financial assistance to purchase fertilizer, etc., to increase food production.

(4) Population/family planning

It has become necessary to secure farmland to increase food production to meet a drastic increase in population. For this, deforestation has occurred causing environmental deterioration such as intensified desertification, as well as damage due to drought. In addition to direct cooperation such as diffusion of the concept of family planning, Japan helps address the issue of population growth through comprehensive cooperation including promotion of maternal and child health.

üE Ghana (The Project for the Investment of the Maternal and Child Health In-Service Training System and Programme)

(1996: \101 million; 1997: \125 million; 1998: Not yet totaled)

Project builds and reinforces the re-training system for those engaged in health care by expanding the scope of training in accordance with proper planning.

üE Kenya (The Population Education Promotion Project Phase II)

(1996: \241 million; 1997: \176 million; 1998: Not yet totaled)

Project diffuses information concerning population through development of multimedia teaching materials, and promotes family planning which improves living conditions.

üE Tanzania (The Maternal and Child Health Services Project)

(1996: \220 million; 1997: \242 million; 1998: Not yet totaled)

Project spreads medical care services, and provides training for staff engaged in maternal/child health care in order to reduce the mortality rates of infants, pregnant women and nursing mothers as well as to control the population growth rate.

üE Malawi (Equipment for maternal health and family planning education)

(1997: \7.88 million)

Japan provides equipment to make the maternal health care and family planning available to the people at large.

(5) Conservation of water resources (including development of water for everyday living)  
In arid regions of Africa, the annual precipitation is low, and water is obtained by constructing shallow wells and using surface water. Chronic drought however tends to occur in these regions, requiring people to secure water for everyday living. Japan cooperates in securing a stable supply of fresh water by constructing water supply facilities such as seep wells, thereby enhancing the living conditions for local inhabitants.

üE Morocco (The Project for Rural Water Supply)

(1996: \430 million)

Traditional hand-dug wells are used because of the desert climate. The project introduces equipment used for water supply facilities in order to provide a safe and sanitary water supply and to raise the improvement rate of water supply facilities in farming areas.

üE Kenya (The Project for Groundwater Development in Rural Districts)

(1998: \441 million)

Project for constructing deep wells in order to provide a safe supply of drinking water in arid and semiarid areas.

üE Zambia (The Rural Water Supply Project in Southern Province)

(1996: \702 million; 1997: \662 million)

Japan cooperates by constructing deep wells to improve the water supply situation in the southern province of Zambia, which tend to be damaged by drought.

üE Swaziland (The Rural Water Supply Project)

(1996: \166 million; 1997: \450 million)

Project for constructing deep wells and water supply facilities in order to improve public sanitation of agricultural districts that are largely affected by drought.

üE Senegal (The Project to Improve Water Supply Systems in Rural Areas)

(1996: \514 million; 1997: \585 million)

Project for providing water supply facilities to cope with shortage of water needed for everyday living, caused by chronic drought.

üE Senegal (The Project to Supply Potable Water in Rural Areas)

(1997: \424 million; 1998: \141 million)

Project for cooperating by constructing water supply facilities to provide a safe supply of drinking water in semiarid areas.

üE Cote d'Ivoire (The Project to Supply Potable Water in Rural Areas)

(1998: \889 million)

Project for constructing wells for villages in the central part of the country where the water supply situation is severe.

üE Burkina Faso (The Project to Supply Potable Water in Village for Eradication of Guinea Worms)

(1998: \739 million)

Project for constructing deep wells in semiarid zones where people have no alternative but to using unsanitary water in order to secure a stable supply of water.

üE Madagascar (The Project for Water Supply in the South)

(1996: \764 million; 1997: \767 million)

Project for constructing water supply facilities in order to provide a stable supply of quality drinking water in the southern part of the country where annual precipitation is only 400 to 600 millimeters.

üE Malawi (The Rural Water Supply Project in West of Mzimba District)

(1996: \74 million; 1997: \359 million; 1998: \990 million)

Project for constructing deep wells as part of the plan to exploit ground water in order to provide a stable supply of water for everyday living to cope with the water supply becoming exhausted during the dry season.

üE Mali (The Project to Supply Potable Water in the Korofina Zone)

(1996: \82 million; 1997: \1,174 million; 1998: \945 million)

Plan for providing a stable supply of drinking water by preparing water supply facilities to handle demand in the capital of Bamako where shortage of water for everyday living has been occurring in recent years.

üE Mozambique (The Project for the Development of the Rural Water Supply in Gaza Province)

(1996: \560 million and \293 million)

Project for purchasing material needed for well drilling and construction of wells and other related facilities in Gaza where the annual precipitation is only about 400 - 500 millimeters.

üE Mauritania (The Project to Supply Potable Water in Village for Eradication of Guinea Worms)

(1998: \699 million)

Project for constructing deep wells in semiarid zones where people have no alternative but to using unsanitary water in order to secure a stable supply of water.

(6) Reforestation and forest conservation

Desertification is often accompanied by lack of precipitation as well as by

deforestation due to population increase, overgrazing, etc. In order to

promote reforestation, Japan has been assisting in establishment of tree

seedlings production systems through construction of tree nurseries and

professional training for the local officials. Also, some projects are in place for forest resources inventories and for developing forest management plans. These initiatives should eventually upgrade the standard of living for the local population. In addition, Japan has been hosting a series of workshop to promote model forest approach that will facilitate implementation of sustainable forest management at the field level.

üE Ghana (The Study on Reserve Forest Management in Transitional Zone)

(1996: \18 million; 1997: \123 million; 1998: Not yet totaled)

Project to conduct studies involving the sustainable forest management plan for preventing the transitional zone between the savanna area of the north and the forest zone of the south from being turned into savanna land.

üE Kenya (The Social Forestry Training Project Phase II)

(1996: \199 million; 1997: \131 million; 1998: Not yet totaled)

Designed to improve the standard of living of local inhabitants by training technicians needed for social forestry development and to establish production of saplings to cope with exhaustion of firewood and charcoal due to population growth.

üE Kenya (The Social Forestry Extension Model Development Project for Semi-Arid Areas)

(1997: \59 million; 1998: Not yet totaled)

Project aims to develop a social forestry extension model through development of forests in agricultural areas by inhabitants of semiarid areas.

üE Senegal (The Project for the Management of Forest Nurseries)

(1996: \325 million)

Project constructed public nurseries for production of tree seedlings to promote reforestation in arid-zones.

üE Senegal (The Tertiary Project for the Management of Forest Nurseries)

(1998: \739 million)

Project constructed public nurseries for production of tree seedlings to promote reforestation in arid-zones.

üE Tanzania (The Kilimanjaro Village Forestry Project Phase II)

(1996: \134 million; 1997: \2 million; 1998: Not yet totaled)

Project for developing and improving skills for afforestation and awareness-raising needed for social forestry activities in semiarid areas in order to promote village forestry in Tanzania.

üE Benin (The Study on Cartography, Inventory and Management of Classified Forest in Northern area in Benin)

(1997: \24 million; 1998: Not yet totaled)

Project for preparing basic data on forestry and conducting studies related to establishment of forestry management programmes for the preserved forests of the northern part of the country to

prevent the north area where there is little precipitation from being turned into savanna.

üE Niger (The Green Cooperation Project in Kareye-Gorou)  
(1996: \9.4 million; 1997: \6.3 million; 1998: \7.30 million)

Project provides training for local population in agro-forestry, tree nurseries development in tree planting by local population and developing and training of dune fixing techniques.

üE Tanzania (The Green Cooperation Project Phase II)  
(1996: \8.38 million; 1997: \6.3 million)

Project primarily in agro-forestry including tree planting, cultivation of fruit trees and vegetables.

üE Senegal (The Green Cooperation Project Phase II)  
(1996: \6.83 million; 1997: \8.35 million; 1998: \7.41 million)

Project for providing information to organizations and local inhabitants through popularization activities and technical guidance in order to promote greenery by tree planting, etc., thereby helping to improve living conditions for local inhabitants of farming villages, etc., in Senegal.

üE Mali/Yemen (Establishment of Technical Guideline for Forest Rehabilitation in Desertification)  
(1996: \42 million)

Project for drafting a technological course for forest recovery including agro-forestry techniques, by afforestation to prove effectiveness of technologies used, studies of examples of recovered forests and forest growing conditions in areas affected by desertification.

üE Developing Countries Including Africa (The International Workshop on Model Forests for Field-level Application of Sustainable Forest Management)  
(1996: \21 million; 1997: \21 million)

Japan hosted an international workshop in which high-level forestry experts of international organizations participate to exchange scientific and technical knowledge concerning model forests, and to promote efforts to build a model forest network.

#### (7) Agricultural development

üE In arid, semi-arid and dry sub-humid areas, rainfed agriculture is often damaged by drought due to limited and variable precipitation. Japan is involved in helping to improve the standard of living and help local people's settlement by cooperating with preparation of irrigation facilities by improving waterways and securing water resources through development of ground water and effective use of treated sewage to enable agricultural production and secure a stable water supply.

üE

üE Egypt (The Project for Rehabilitation and Improvement of Bahr Yusef Canal)  
(1996: \1,424 million)

Project for preparing irrigation waterways to improve irrigation facilities on the banks of the Nile

in Egypt where the desert climate brings almost no precipitation.

üE Egypt (The Project for Improvement of Solid Waste Management in Alexandria City II)  
(1996: 900 million; 1997: 1,080 million)

Project for setting more compost plants facility for extracting organic materials from waste and producing soil conditioners and fertilizer, to reduce waste volume and increase agricultural production.

üE Tunisia (The Irrigated Perimeter Improvement Project of Oasis in South Tunisia)  
(1996: 8,106 million)

Project for preparing drainage waterways and repairing irrigation terminal waterways to make effective use of oasis resources, save water, preserve ground water and prevent salt damage in the steppes of southern Tunisia.

üE Tunisia (The Irrigated Perimeter Improvement Project of Goubellat)  
(1996: 2,637 million)

Project for enabling stable agricultural production by preparing irrigation facilities in the Goubellat district of northern Tunisia.

üE Tunisia (The Treated Sewage Irrigation Project)  
(1997: 1,707 million)

Project for preparing irrigation facilities that utilize treated sewage in order to expand agricultural production to counter drought damage.

üE Tunisia (The Barbara Irrigation Project)  
(1997: 1,913 million)

Project for preparing irrigation facilities to enable agricultural production in the dry season and increase production of grain, etc.

üE Tunisia (The Study on the Irrigated Area Improvement in Oasis in the South)  
(1996: 10 million)

Project for studying the Oases located in southern Tunisia in order to prepare irrigation facilities to make effective use of ground water.

üE Morocco (The Project for Agricultural Development in the Basin of Ouergha River)  
(1996: 330 million; 1997: 385 million)

Project for dam and irrigation facilities construction to prevent desertification and counter a decrease in production of main crops due to critical droughts in recent years.

üE Kenya (The Integrated Rural Development Project in Baringo Semi-Arid Land Area)  
(1998: Not yet totaled)

Study to be conducted in order to develop a plan with the local people's participation to create a system for, and prepare infrastructure for improving living conditions of small-scale farmers in the Baringo area.

üE Niger (The Project to halt the Desertification in the Department of Tillabery)  
(1997: \135 million; 1998: Not yet totaled)

Study conducted for preventing desertification by planning concrete project for improving living conditions and development of sustainable farming, livestock, and forestry industries in the Tillabery area where the population is concentrated in the Niger River basin, which has a high potential for irrigation farming.

üE Niger (The Project for the Rehabilitation of the Rural Area of Ouallam)  
(1996: \427 million; 1997: \268 million)

Project for constructing small-scale irrigation facilities to secure a reliable source of water for daily living and for irrigation farming during the dry season for farming villages devastated by desertification and drought damage.

üE Malawi (Bwanje Valley Irrigation Development Project)  
(1996: \45 million; 1997: \359 million; 1998: \330 million)

Project for preparing irrigation facilities in the Bwanje Valley area, which only gets 600 to 900 millimeters of precipitation per year and is subject to drought damage.

(8) Development and efficient use of various energy sources

ääMany villages in developing countries do not have access to electric power. ää  
ääEspecially for the villages in remote areas and mountainous areas, the ää  
ääsituation is that there is currently no future plan to bring electric power to them. ää  
ääBecause solar energy is abundant in areas where desertification is advancing, ää  
ääthis project attempts to develop alternative sources of energy, primarily using ää  
ääphotovoltaics. ää

ää

üE Zimbabwe (The Study on Utilization of Photovoltaics for Rural Electrification)  
(1996 - 1997: \204,453 thousand)

Study for proposing a project to efficiently promote development of electric power in Zimbabwe based on results of testing photovoltaics (PV). The study is based on the UNDP project for promoting the use of solar power.

üE Cameroon (The Study on Memve-Ele Hydroelectric Power Development Project)  
(1997 - 1998: \165,052 thousand)

Local study of possible locations for small water power generation, and study of required facilities for planning a project for bringing electric power to local areas by comprehensive evaluation including technical, economic and environmental aspects.

üE Senegal (The Study on Promotion of Photovoltaics for Rural Electrification)  
(1999 - 2001: Sum not yet determined)

Study for proposing a project to efficiently promote development of electric power in Senegal based on results of testing photovoltaics (PV).

(9) Capacity building and education

Training sessions for researchers, government administrators and local people of affected developing countries are provided on utilization of water resources and agriculture in order to enhance scientific and technical capacity for combating desertification in various countries. Japan also held a symposium to diffuse knowledge concerning desertification in Japan and to diffuse technology to combat desertification to the affected countries through the efforts of enterprises and NGOs.

E Training at Arid Land Research Center, Tottori University

Trainees from Kenya and Senegal, etc., have been trained through lectures and experiments at Arid Land Research Center, Tottori University.

E International Symposium on Research to Combat Desertification

Japan held a symposium for NGOs and researcher from Japan and abroad in March 1999 to diffuse knowledge concerning desertification in Japan and diffuse how to combat desertification to the affected countries through the efforts of businesses and NGOs.

E Trainee Results

Japan accepts government administrators and representatives of local people as trainees, and conducts the second and third country training concerning development of water resources and agro-forestry. (1996: 208 trainees; 1997: 215 trainees; 1998: Not yet totaled)

E Dispatching of Experts

Japan dispatches experts to advise government administrators and representatives of local people concerning development of water resources and agro-forestry. (1996: 74 experts; 1997: 55 experts; 1998: Not yet totaled)

(10) Women in development

In addressing desertification and deforestation, Japan aids in well-digging with a view to releasing women from the heavy burden of the traditional task of drawing water from wells, and in vegetable cultivation in order to ease the amount of labor involved in farming, thereby helping to elevate the women's social status, prevent soil erosion, and secure a supply of fresh water. This also enables people to maintain their standard of living against desertification process.

E Burkina Faso (The Project to Supply Potable Water in Village for Eradication of Guinea Worms)

(1998: \739 million)

Project for constructing deep wells in semi-arid zones where people have no alternative but to using unsanitary water in order to secure a stable supply of water.

üE Mozambique (The Project for the Development of the Rural Water Supply in Gaza Province )  
(2 cases)

(1996: \560 million and \293 million)

Project for purchasing equipment needed for well drilling and construction of wells and other related facilities in Gaza where the annual precipitation is only about 400 - 500 millimeters.

üE Women Empowerment and Assistance Forum (Local NGO)

Environmental conservation and agro-forestry by women in Ethiopia

(1998: \6.7 million)

To combat desertification and deforestation by growing seedlings and vegetables, it aims to elevate the social status of women in the short run, and prevent soil erosion and deterioration of fertility in the long run.

(11) Study and research on desertification

ääJapan contributes to obtain necessary knowledge through wide-ranging themes ää  
ääof study and research including conservation of soil and water resources, ää  
ääagricultural development, socioeconomic methods, etc., to effectively combat ää  
äädesertification according to the country or area. Japan also encourages the ää  
ääparticipation of local people and researchers from various countries to obtain ää  
ääand transfer the technology and knowledge. ää

ää

ää

ääJapan also conducts various types of study and research on desertification ää  
ääusing the "Global environment Research Fund." Research is conducted ää  
ääprimarily at Arid Land Research Center, Tottori University. ää

ää

ü4 Arid Land Research Center, Tottori University

The Arid Land Research Center is Japan's one and only research institute established for fundamental research concerning combat of desertification, agricultural development and economical and practical use of arid land. At any time the center has a large number of researchers from countries all over the world, and conducts research both in Japan and abroad. The budget for each individual type of research or study conducted at the center cannot be specified.

üE Niger, Ghana, Kenya, Iran, China (Sustainable development of irrigated agriculture in arid land)

The following was carried out jointly with local researchers of various countries during 1995; explanation of the desertification mechanism having its source in the irrigation farming method; construction of a desertification and geographical information system; and construction of an efficient irrigation method.

üE Sudan (Desertification and its control in farmland)

Researchers from Agricultural Research Corporation of Sudan have been invited to participate in fundamental experiments at the Arid Dome experiment facilities since 1994, and joint research project has been conducted since 1997.

ü4 Promotion of research of desertification using the Global Environment Research Fund.  
(1996: \131,771 thousand; 1997: \121,840 thousand; 1998: \85,996 thousand)

Researchers in various fields at state-supported research institutions and universities, etc., are gathered to work as a single unit to conduct global environment research from an academic, international perspective using the Global environment Research Fund provided by the Environment Agency. The following research is pertinent and applicable. Research on Africa is scheduled to be carried out in 1999.

üE Study on Evaluation of Prevention and Remedies for Desertification (National Institute of Agro-Environmental Sciences, National Research Institute of Agricultural Economics)  
(1996: \65,487 thousand; 1997: \57,897 thousand)

Research was conducted on development of an environmental capacity evaluation model for grazing areas, development of a desertified area general development model, and experimentation to verify essential technologies for prevention of desertification.

üE Study on the Development of Technology for the Rehabilitation of Soil with Salt Accumulation

(Japan International Research Center for Agricultural Science)  
(1996: \66,284 thousand; 1997: \63,943 thousand; 1998: \38,144 thousand)

Conducted development research concerning soil improvement and irrigation to restore land on which salt has accumulated.

üE Study on Application of Desertification Preventive Technologies for Sustainable Land Use (National Institute of Agro-environmental Sciences)  
(1998: \39,018 thousand)

Conducts research concerning evaluation of technologies for combating desertification and what elements a sustainable land use programme should include through vegetation restoration experiments and study of land use programme.

üE Synthetic Analysis of Researches on Desertification and Systematization of Technologies for Desertification Control (National Institute for Environmental Studies)  
(1998: \8,804 thousand)

Collects, arranges and systematizes data concerning desertification control technologies and research.

ü4 Other

üE The Model Project for Effective Use of Groundwater

(1996: \79,740 thousand; 1997: \135,544 thousand; 1998: \150,488 thousand; 1999: \74,012 thousand)

thousand)

The project has conducted to obtain scientific/technological and socioeconomic information, such as effective and environmentally sound use of ground water, to combat desertification in affected countries. This project is conducted by using verification facilities, such as underground dam, constructed in Burkina Faso.

üE Research for Supporting the Convention to Combat Desertification

(1996: \12,866 thousand; 1997: \13,097 thousand; 1998: \13,105 thousand; 1999: \31,642 thousand)

Collects expert knowledge to support Committee on Science and Technology (CST) and regional and subregional action programmes.

üE Niger, Burkina Faso, Mali (Study for Environmental Preservation Measures such as Combating Desertification)

(1996: \420,058 thousand; 1997: \434,201 thousand; 1998: \414,623 thousand; 1999: \476,781 thousand)

Since 1990, the project has been conducting studies to establish a package of technologies for the sustainable agriculture in the Sahel area of West Africa. The studies include trial of various techniques on the model farms to verify their applicability to the area.

üE Basic Study for Preventing Soil Erosion

(1996: \21,317 thousand; 1997: \21,359 thousand; 1998: \21,359 thousand; 1999: \98,203 thousand)

Since 1995, the project has been conducting studies to grasp the current state of soil erosion and the countermeasures in the areas where soil erosion has severely affected the productivity. The studies include trial of various techniques in the selected area to establish a package of technologies applicable to the locality.

üE Study on Establishment of a New Monitoring System for Land and Water Resources Management

(1996: \113,224 thousand; 1997: \111,616 thousand; 1998: \111,196 thousand; 1999: \100,076 thousand)

Since 1994, the project has conducted studies concerning establishment of a monitoring system capable of all at once grasping causes of desertification, such as decrease in vegetation, salt accumulation, etc., over a wide area, using satellite image data and GIS technology.

(12) Support for NGO activities

üE Japan provides financial support for domestic and local NGOs through grant

üE assistance for grass-roots projects, subsidy system for NGO Projects.

üE In addition, Japan, in cooperation with private sector, also support NGOs

üE through the Japan Fund for Global Environment established in Japan

üE Environment Corporation. Furthermore, Postal Savings for International

üE Voluntary Aid, which is provided by the post office, support NGOs by utilizing

üE donations by depositors. Fields which Japan offers cooperation in include:

forest conservation including afforestation and sapling nurseries; agricultural development such as vegetable cultivation and agro-forestry, farm management by local people; securing water resources to raise the standard of living; and on. Japan International Forestry Promotion and Cooperation Center, etc, also support afforestation projects by Japanese NGOs in developing countries.

#### ü4 Examples of cooperation through grant assistance for grass-roots projects

With a view to meeting the various assistance needs of developing countries in a timely and precise manner, Japan provides financial assistance for comparatively small projects carried out by local public organizations and medical care institutions in developing countries, and NGOs conducting activities in developing countries. The overseas missions of the Ministry of Foreign Affairs with their detailed knowledge of the state of affairs in the concerned country, play a central role in providing the assistance. This was initiated as "small-scale grant assistance" in 1989 (changed to "grant assistance for grass-roots projects" in 1995). Activities carried out in Africa from the perspective of preventing desertification for the years 1996 though 1998 are as follows:

##### üE Mouvement des Jeunes de KAMB (Local NGO)

Execution of agro-forestry development project in Senegal  
(1996: \4.28 million)

Agro-forestry project including agriculture and livestock industry to prevent drying of land by planting trees in order to combat serious desertification.

##### üE Collective "Lehwache" (Local NGO)

Execution of tree planting and vegetable cultivation project in Mauritania  
(1996: \3.83 million)

Project for preparation of sapling nurseries for tree planting and cultivation of vegetables to secure farmland in spite of desertification. Designed to improve the living environment and tree-planting situation.

##### üE Cooperative Mabrouk Etila (Local NGO)

Execution of tree planting and vegetable cultivation project in Mauritania  
(1996: \1.34 million)

Project for preparation of sapling nurseries for tree planting and cultivation of vegetables to secure farmland in spite of desertification. Designed to improve the living environment and tree-planting situation.

##### üE Duori Area Youth Development Association (Local NGO)

Execution of irrigation dam construction project in Ghana  
(1997: \8.46 million)

Collects rainfall during the rainy season to aid agriculture near the dam in the dry season to cope with drought damage.

üE Sakote Development Committee (Local NGO)

Execution of irrigation dam construction project in Ghana

(1997: \9.77 million)

Collects rainfall during the rainy season to aid agriculture near the dam in the dry season to cope with drought damage.

üE Comite Intervillgeois de Developpment Concerte (Local NGO)

Execution of agro-forestry project in Senegal

(1997: \4.51 million)

Agro-forestry project to prevent drying of land by planting forests in areas where livestock are raised in order to combat serious desertification.

üE Cooperative Agro-Style-Pastorale M'bidane (Local NGO)

Execution of natural environment restoration project in Mauritania

(1997: \2.41 million)

Project for enhancing living conditions for villagers by planting a barrier of trees around vegetable fields to block wind and prevent sand from shifting.

üE Women Empowerment and Assistance Forum (Local NGO)

Environmental conservation and agro-forestry by women in Ethiopia

(1998: \6.7 million)

Planting trees and cultivating vegetable to cope with desertification where forest area has diminished aims to elevate the social status of women in the short run, and prevent soil erosion and deterioration of fertility in the long run.

üE Action for Greening Sahel (AGS) (Japanese NGO)

Provision of transport vehicles for planting trees in Burkina Faso.

(1998: \4.62 million)

Provides vehicles for transporting materials for planting trees in the north part of Burkina Faso.

ü4 Assistance through subsidy system for NGO Projects

Development activities of NGOs promote self-reliance of people in developing countries, can be carried out at the grass-roots level, and play an important role in encouraging local people to participate, thus enable flexible, fast and thorough reaction. This project calls for Japanese NGOs to provide assistance for part of the cooperative development activities carried out in developing countries. Activities carried out in Africa from the perspective of preventing desertification for the years 1996 through 1998 are as follows:

üE Action for Greening Sahel (AGS)

Support for sapling nurseries in Chad

(1997: \1.97 million; 1998: \2.1 million)

Provides support for small sapling nurseries run by farming cooperatives in areas where the living environment of local inhabitants is threatened by desertification due to deforestation, and contributes to restoration of the natural ecosystem, preservation of the environment, and stability for local people by increasing greenery in the area in which they dwell.

üE Action for Greening Sahel (AGS)

Supports popularization of vegetable cultivation in Burkina Faso

(1998: \2 million)

Protects vegetation and encourages cultivation of vegetables in areas where the living environment of local inhabitants is threatened by desertification due to deforestation, and contributes to restoration of the natural ecosystem, environmental conservation, and stability for local people by increasing greenery in the area in which they dwell.

ü4 NGO support by the Japan Fund for Global Environment

Japan, in cooperation with private sector, supports NGOs involved in environmental conservation through the Japan Fund for Global Environment established in Japan Environment Corporation. Support for activities involving Africa from 1996 through 1998 is as follows:

(1996: \32.8 million [7 cases]; 1997: \26.5 million [6 cases]; 1998: \32.5 million [6 cases])

üE Africa Japan Forum

Studies on self-sufficiency and prevention of desertification or soil depletion in sub-Saharan Africa

(1996: \5 million)

üE Association of Cooperation for Self-Support in Rural West Africa

Environmental improvement in Ba Bougou village and surrounding area in Mali.

(1996: \4 million)

üE Action for Greening Sahel (AGS)

Desertification prevention activities in Chad (Chari Baguirmi state)

(1996: \5.5 million)

üE Mikono International

Project to plant Prosopis trees in bare areas in Kenya (Garissa in northeast)

(1996: \5 million)

üE African Education Fund International (AEF)

Environmental conservation project for war-ravaged parts of south Somalia

(1996: \5 million)

üE SAVE AFRICA PROJECT

Construction of Environmental Technology Research and Training Center in Zaire (Shaba region, city of Lubumbashi)

(1996: \3.8 million)

üE The Defense of Green Earth Foundation

Tree planting in Kilimanjaro foothills of Tanzania

(1996: \4.5 million)

üE Association of Cooperation for Self-Support in Rural West Africa  
Environmental conservation activities for combating desertification carried out in Mali (Koula)  
(1997: \5 million)

üE The Japanese Society of Irrigation, Drainage and Reclamation Engineering  
Research of suitable resource management methods for preventing salt accumulation and  
desertification in arid areas  
(1997: \4 million)

üE Mikono International  
Project to plant Prosopis trees in bare areas in Kenya (Coast Province, Tana-River District)  
(1997: \5 million)

üE The Defense of Green Earth Foundation  
Support for village tree planting by citizens' groups in Tanzania; support for change to network  
(1997: \4 million)

üE Team Today and Tomorrow (TT&T)  
Ethiopia South Wello, Kellela Woreda environmental conservation and farming village  
development project  
(1997: \4 million)

üE International Community Development Center Kobe  
Promotion of greenery and environmental conservation agriculture to restore the environment in  
Rwanda  
(1997: \4.5 million)

üE Association of Cooperation for Self-Support in Rural West Africa  
Environmental conservation activities carried out in Mali (Koulikor Province, Koula and  
Sirakorora)  
(1998: \6.1 million)

üE The Party for Greening of Desert  
Preparation of agricultural production environment and afforestation in arid areas of Djibouti  
(1998: \4.1 million)

üE Mikono International  
Project to plant Prosopis trees in bare areas in Kenya (Coast Province, Tana-River District)  
(1998: \5.1 million)

üE The Hunger Project-Japan  
Tree planting in Ghana (Volta)  
(1998: \6.1 million)

üE The Defense of Green Earth Foundation

Support for village tree planting by citizens' groups in Tanzania and creation of network  
(1998: \4.6 million)

üE Team Today and Tomorrow (TT&T)

Environmental conservation and farming village development project in Ethiopia (South Wello, Kellela Woreda)

(1998: \6.5 million)

ü4 NGO support by Postal Savings for International Voluntary Aid

Started in January 1991, Postal Savings for International Voluntary Aid is a programme that anybody can easily participate in at 24,600 post offices across the country. Interest from contributed ordinary postal savings is used to enhance the welfare of people in developing countries via NGOs, thus enabling citizens to participate in overseas assistance. In the past 8 years, the programme has distributed approximately \3.07 billion to a total of 284 projects through NGOs active in 26 countries of Africa. Support for activities related to combating desertification for the years 1996 through 1998 is as follows:

üE Christian Child Welfare Association

Provided street children in Ethiopia (Addis Ababa) with vocational training, clothing and food.

(1996: \3.62 million)

üE Japan International Food for the Hungry

Traveling health examinations for farm animals, prevention sleeping sickness spread by the tsetse fly, and construction of flour mills to help local inhabitants in Ethiopia achieve self-sufficiency.

(1996: \6,405 thousand)

üE Japan International Volunteer Center

Tree planting for forest protection, construction of sapling nurseries, and well digging to provide local inhabitants with water for everyday living in Ethiopia.

(1996: \7,039 thousand)

üE Send Schools to Children of the World

Built and operated vocational training schools for girls in Ghana (Accra).

(1996: \8,128 thousand)

üE Japanese Organization for International Cooperation in Family Planning

Health and sanitation guidance, health examinations and toilets for women and children (health and sanitation guidance, training for health and sanitation counselors) in Ghana.

(1996: \5,705 thousand)

üE The Institute of Cultural Affairs

Provided women in Kenya with guidance for raising livestock.

(1996: \ 5,557 thousand)

üE Africa Children Education Fund

Distributed textbooks to schools, provided children with health examinations, and operated a vocational training school in Kenya.

(1996: \10,889 thousand)

üE Mikono International

Built elementary schools, provided tuition for orphans, planted trees in bare areas, taught women sewing, and provided traveling health examinations in Kenya (Garissa).

(1996: \16,473 thousand)

üE Assistance Group for Women in Slum

Taught dressmaking and operated dressmaking school for women in Kenya (Nairobi).

(1996: \3,179 thousand)

üE International Association for the Visually Impaired

Taught acupuncture, moxibustion and massage to the visually impaired in Kenya (domestic invitation).

(1996: \1,686 thousand)

üE SAVE AFRICA PROJECT

Provided Environmental Technology Research and Training Center in Zaire (Shaba region) with desks, chairs, and training supplies.

(1996: \7,731 thousand)

üE The Institute of Cultural Affairs

Provided youths in farming villages in Zambia with vocational training (welding and woodworking).

(1996: \5,162 thousand)

üE Association to Aid the Refugees, Japan

Taught refugees from Zaire in Zambia tree planting for environmental conservation, charcoal manufacturing, and how to make bicycle trailers.

(1996: \8.4 million)

üE World Vision Japan

Taught well digging and repair in order to secure a supply of drinking water, and educated local inhabitants about health and sanitation in Zambia.

(1996: \5,089 thousand)

üE The Party for Greening of Desert

Taught tree planting and agricultural skills to combat desertification in Djibouti.

(1996: \4.97 million)

üE The People's Education Support Fund, Japan

Taught women in Zimbabwe how to read, provided vocational training, and operated a cooperative.

(1996: 3,995 thousand)

üE Japanese Organization for International Cooperation in Family Planning  
Guidance for improving health and sanitation for women and children in Tanzania (health and sanitation guidance, training for health and sanitation counselors, guidance for parasite prevention, etc.).

(1996: 7,841 thousand)

üE Earth Greenery Activities, Japan

Planted trees for environmental conservation, built environmental recovery model farms, and taught agricultural skills in Tanzania.

(1996: 4,462 thousand)

üE Action for Greening Sahel (AGS)

Planted trees for environmental conservation, prepared sapling nurseries, and taught agricultural skills to farmers in Chad (state of Chari Baguirmi).

(1996: 17,681 thousand)

üE Japan Burkina Faso Friendship Association

Distributed medical supplies to farmers and built elementary schools in Burkina Faso.

(1996: 4,943 thousand)

üE Regional Amicable Voluntary Assistance Cooperation, Japan

Preparation of medical treatment facilities, vocational training (sewing), and guidance for improving living conditions for farmers in Madagascar.

(1996: 7,544 thousand)

üE Volunteer Southern Cross Japan Association

Prepared sapling nursery, and provided local inhabitants of Madagascar with guidance concerning environmental conservation, tree planting and vegetable cultivation.

(1996: 6,486 thousand)

üE Association of Cooperation for Self-Support in Rural West Africa

Provided guidance concerning health and sanitation, taught reading, well digging, administered malaria prevention medication, and created vegetable gardens to secure a supply of food for local inhabitants of Mali (Koulikor).

(1996: 6.38 million)

üE Mother's Group, Working with Children for Human Rights and World Peace

Prepared farms, dug wells, built tree nurseries for preventing desertification, and operated a vocational training school (dressmaking) for women in Mali (Bamako).

(1996: 14,797 thousand)

üE Association Sahel

Planted trees for preventing desertification taught agricultural and reading skills to local

inhabitants of Mali.  
(1996: \4,857 thousand)

üE SAVE THE AFRICA

Built a net to prevent sand from shifting, planted trees to prevent desertification, provided vehicles, and taught auto repair skills in Mauritania.  
(1996: \7.92 million)

üE World Vision Japan

Distributed farming equipment, seeds and livestock, taught agricultural skills, and prepared barns to/for farmers stricken by civil war in Rwanda.  
(1996: \4,972 thousand)

üE Japan International Volunteer Center

Provided guidance for local development and improving living conditions for local inhabitants of South Africa, and provided training for life improvement trainers.  
(1996: \6,851 thousand)

üE Christian Child Welfare Association

Provided street children in Ethiopia (Addis Ababa) with vocational training, clothing and food.  
(1997: \3,523 thousand)

üE Japan International Food for the Hungry

Provided saplings for greening and soil preservation, provided guidance concerning health and sanitation, built sanitation facilities, and dug wells to provide local inhabitants of Ethiopia with drinking water.  
(1997: \8,384 thousand)

üE Japan International Volunteer Center

Built sapling nurseries and planted trees for forest protection in Ethiopia.  
(1997: \7,565 thousand)

üE Send Schools to Children of the World

Built and operated vocational training schools for women in Ghana (Accra).  
(1996: \6,811 thousand)

üE The Hunger Project Japan

Dug wells and taught agricultural skills (vegetable cultivation) to farmers in Ghana.  
(1996: \4,985 thousand)

üE Africa Children Education Fund

Operated a vocational training institute / health center in Kenya and provided children with health examinations.  
(1996: \7,720 thousand)

üE African Elephant Foundation - Japan

Taught reading and sewing skills, and built sewing schools for women in Kenya.

(1996: \2,268 thousand)

üE Assistance Group for Women in Slum

Taught dressmaking and operated dressmaking school for women in Kenya (Nairobi).

(1997: \3,304 thousand)

üE The Institute of Cultural Affairs

Provided young people in Cote d'Ivoire with vocational training (haircutting, dressmaking, weaving).

(1997: \4,269 thousand)

üE The Institute of Cultural Affairs

Provided young people of farming villages in Zambia with vocational training (welding, woodworking, chicken ranching).

(1997: \ 5.27 million)

üE Association to Aid the Refugees, Japan

Taught refugees in Zambia construction skills and how to make bicycle trailers.

(1997: \5,418 thousand)

üE Tokushima International Cooperation

Provided improved nutrition for children living in poverty stricken areas of Zambia (operated vegetable and chicken "bank").

(1997: \3,088 thousand)

üE World Vision Japan

Dug wells to secure drinking water, provided training for well repair technicians, and provided instructions concerning health and sanitation for local inhabitants in Zambia.

(1997: \4,346 thousand)

üE The Party for Greening of Desert

Taught tree planting and agricultural skills to combat desertification in Djibouti.

(1997: \5,275 thousand)

üE The People's Education Support Fund Japan

Taught women in Zimbabwe how to read, provided vocational training, and operated a cooperative.

(1997: \3,317 thousand)

üE African Education Fund International

Provided food and improved nutrition for refugees from Zaire in Tanzania.

(1997: \6,463 thousand)

üE Earth Greenery Activities, Japan

Built environmental recovery model farms, and provided guidance concerning farm management in Tanzania.

(1997: \3,828 thousand)

üE Action for Greening Sahel

Planted trees for forest management, prepared sapling nurseries, and taught agricultural skills to farmers in Chad (state of Chari Baguirmi).

(1997: \13,658 thousand)

üE Japan Wildlife Research Center

Modification, repair and management of nature reserves in Madagascar.

(1997: \2,901 thousand)

üE Regional Amicable Voluntary Assistance Cooperation, Japan

Provided equipment for traditional crafts (woodworking), provided technical advice on crafts, and cooperated in tree planting in Madagascar.

(1997: \4,725 thousand)

üE Volunteer Southern Cross Japan Association

Prepared sapling nursery, and provided local inhabitants of Madagascar with guidance concerning environmental conservation, tree planting and vegetable cultivation.

(1997: \4,597 thousand)

üE Association of Cooperation for Self-Support in Rural West Africa

Provided guidance concerning health and sanitation, taught reading, dug wells, and created vegetable gardens for local inhabitants of Mali (Koulikor).

(1997: \6,315 thousand)

üE Association Sahel

Planted trees for preventing desertification, taught agricultural and reading skills to local inhabitants of Mali.

(1997: \3,885 thousand)

üE SAVE THE AFRICA

Built a net to prevent sand from shifting, planted trees to prevent desertification, provided vehicles, and taught auto repair skills in Mauritania.

(1997: \6,475 thousand)

üE World Vision Japan

Distributed farming equipment, seeds and livestock, taught agricultural skills, and prepared barns to/for farmers stricken by civil war in Rwanda.

(1997: \7,649 thousand)

üE Japan International Food for the Hungry

Provided saplings for afforestation and soil conservation, provided guidance concerning health and sanitation, built sanitation facilities, and dug wells to provide local inhabitants of Ethiopia with drinking water.

(1998: \11,897 thousand)

üE Japan International Volunteer Center

Planted trees for forest protection in Ethiopia.

(1998: \7,123 thousand)

üE Oasis - Japan

Dug wells and provided technical advice concerning vegetable and cotton cultivation for management of model farms in Ghana.

(1998: \902 thousand)

üE Mikono International

Built elementary schools, distributed teaching materials and equipment, taught women sewing, and provided traveling health examinations in Kenya (Garissa).

(1998: \18,921 thousand)

üE African Elephant Foundation - Japan

Taught reading and sewing skills for women in Kenya (Coast Province).

(1998: \2,621 thousand)

üE Assistance Group for Women in Slum

Taught dressmaking and operated dressmaking school for women in Kenya (Nairobi).

(1998: \3,210 thousand)

üE The Institute of Cultural Affairs

Provided young people in Cote d'Ivoire with vocational training (sewing, weaving) and taught reading skills.

(1998: \4,166 thousand)

üE SAVE AFRICA PROJECT

Built storage barns and provided farming vehicles for teaching agricultural skills in the Democratic Republic of the Congo.

(1998: \4,426 thousand)

üE Tokushima International Cooperation

Provided improved nutrition for children living in poverty-stricken areas of Zambia, and operated "chicken bank."

(1998: \4,262 thousand)

üE The Institute of Cultural Affairs

Provided youths in farming villages in Zambia with vocational training (welding, woodworking, chicken ranching, and bricklaying), and taught agricultural skills.

(1998: \6,936 thousand)

üE The Party for Greening of Desert

Taught tree planting and agricultural skills to combat desertification in Djibouti.

(1998: \6,046 thousand)

üE Earth Greenery Activities, Japan

Built environmental conservation model farms and provided guidance concerning farm management, etc. in Tanzania.

(1998: \6,595 thousand)

üE World Vision Japan

Dug wells to secure drinking water, provided training for well repair technicians, taught agricultural skills, and distributed seeds and fertilizer for local inhabitants in Tanzania.

(1998: \11,492 thousand)

üE Action for Greening Sahel

Planted trees for forest management, prepared sapling nurseries, and taught agricultural skills to farmers in Chad (Chari Baguirmi state).

(1998: \13,406 thousand)

üE The Hunger Project Japan

Taught agricultural skills, provided guidance concerning livestock raising, and taught reading skills to farmers in Burkina Faso.

(1998: \8,216 thousand)

üE Volunteer Southern Cross Japan Association

Prepared sapling nursery, and provided local inhabitants of Madagascar with guidance concerning environmental conservation, tree planting and vegetable cultivation.

(1998: \6,532 thousand)

üE Association of Cooperation for Self-Support in Rural West Africa

Provided guidance concerning health and sanitation, taught reading, well digging, built toilets, and created vegetable gardens for local inhabitants of Mali (Koulikor).

(1998: \8,133 thousand)

üE Association Sahel

Planted trees for preventing desertification, taught agricultural and distributed saplings in Mali.

(1998: \1,681 thousand)

üE SAVE THE AFRICA

Built a net to prevent sand from shifting, planted trees to prevent desertification, provided vehicles, and taught auto repair skills in Mauritania.

(1998: \8,198 thousand)

üE World Vision Japan

Provided vocational training, classes for reading, schools supplies and counseling for people stricken by civil war in Rwanda.

(1998: \10,213 thousand)

ü4 Support from Japanese NGOs through Japan International Forestry Promotion and Cooperation Center

Japanese NGOs provide support via Japan International Forestry Promotion and Cooperation Center (JIFPRO) by assisting studies, training for staff and counterparts from developing countries, providing technical guidance by dispatching experts, etc., for tree planting projects to be implemented in developing countries.

üE Developing countries including Africa "Promotion of Private Sector Activities for Global Tree Planting"

(1996: \93 million; 1997: \151 million; 1998: \151 million)

Promotes greenery all over the world, provides education and training for technicians, provides support for NGOs involved in greenery, and supports afforestation through international non-governmental cooperation through financial assistance of private enterprises, etc.

ü4 Support from Japanese NGOs through the Association for International Cooperation of Agriculture and Forestry

Japanese NGOs dispatch experts to assist in overseas agriculture and forestry projects through the Association for International Cooperation of Agriculture and Forestry.

üE Developing countries including Africa "Promotion of NGOs Activities in the Field of Agriculture and Forestry."

(1996: \85 million; 1997: \91 million; 1998: \85 million)

Example: Tree planting guidance in Mali (Association Sahel)

## 2. COOPERATION THROUGH CONTRIBUTIONS TO INTERNATIONAL ORGANIZATIONS

International organizations such as the United Nations have been involved in combating desertification in various ways. Japan joins these efforts through contributions to such international organizations.

This paper outlines assistance provided by Japan to the following organizations/bodies:

- (1) Secretariat of the Convention to Combat Desertification;
- (2) United Nations Environment Programme (UNEP);
- (3) Food and Agriculture Organization of the United Nations (FAO);
- (4) World Food Programme (WFP);
- (5) International Fund for Agricultural Development (IFAD);
- (6) United Nations Development Programme (UNDP);
- (7) World Meteorological Organization (WMO);
- (8) United Nations Educational, Scientific and Cultural Organization (UNESCO);
- (9) Consultative Group on International Agricultural Research (CGIAR);

- (10) United Nations Industrial Development Organization (UNIDO);
- (11) International Bank for Reconstruction and Development (IBRD, the World Bank);
- (12) Global Environment Facility (GEF); and
- (13) African Development Bank (AfDB).

(1) Secretariat of the Convention to Combat Desertification

(i) Through contributions to the Trust Fund (see Note 1. below) and Special Voluntary Fund (see Note 2. below) established by the General Assembly resolution 47/188 and managed by the Secretariat of the Convention to Combat Desertification, Japan has supported the participation of developing countries in the Conference of the Parties to the Convention to Combat Desertification as well as holding various other meetings such as regional meetings to prepare regional action programmes organized by Secretariat of the Convention to Combat Desertification. Since 1994, Japan has contributed a total of US\$4,892 thousand, the largest contributor in the world. Contributions for the years 1996 through 1998 are as follows: (1996: US\$887 thousand; 1997: US\$1,076 thousand; 1998: US\$1,800 thousand)

(ii) Main support provided by Japan through the Secretariat of the Convention to Combat Desertification (CCD) is as follows:

- üE Support for participation of Affected Developing Countries at the tenth session of the Intergovernmental Negotiating Committee for Desertification (INCD): US\$300 thousand
- üE Africa-Asia Global NGO Forum (December 1996): US\$57 thousand
- üE National Action Programmes in Niger (April 1998) and in Mozambique (April 1999): US\$32 thousand
- üE Technical workshop for 15 CCD African focal points (April 1998): US\$47 thousand
- üE Africa-Asia Forum on CCD (August 1996): US\$109 thousand
- üE National awareness-raising seminars (Iran, Myanmar, Pakistan, Mongolia, Nepal, Bangladesh, Cambodia, Cuba, Panama, Honduras, El Salvador): US\$159 thousand
- üE Formulation of a regional action programme in Asia: US\$53 thousand
- üE Asian Ministerial Conference on the CCD: US\$54 thousand
- üE UNDP-SEED expert meeting (March 1997): US\$45 thousand
- üE The second Asia-Africa Forum on Combating Desertification (September 1997): US\$202 thousand
- üE Support to NGOs for participation in the CCD process (COP2, Dakar 1998) US\$50 thousand
- üE CCD Information System: US\$60 thousand
- üE Support to the COP/ CST (Survey and Evaluation of Existing Networks): US\$50 thousand
- üE Institutional support to Least Developed Countries (LDCs) (Togo, Haiti, Kyrgyzstan, Uganda, Madagascar, Cambodia, Myanmar, Zambia, Tanzania, Angola): US\$161 thousand
- üE Support for sub-regional activities in Africa : CILSS sub-regional forum (Niamey, July 1997), SADC meeting on Early Warning Systems (1997): US\$106 thousand
- üE First Asian National Focal Points Meeting (Ohtsu, May 1998): US\$25 thousand
- üE Support for sub-regional activities in West Asia : Experts Group Meeting In Muscat (September 1998), Experts Group Meeting in Bangkok (November 1998): US\$99 thousand
- üE Support for regional activities in GRULAC : The fourth Regional Conference on the CCD (Antigua, St. Johns, April 1998): US\$70 thousand
- üE Support to Action Facilitation Programme in Asia: US\$200 thousand

üE Support for the preparation of national reports/communication in Africa (1999): US\$80 thousand

Notes:

1. Fund for supporting participation of NGOs from developing countries in Conference of the Parties to the Convention to Combat Desertification and tasks of the Conference of the Parties and Secretariat of the Convention to Combat Desertification. This fund changed its name to the "Supplementary Fund" in 1999.

2. Fund for supporting participation of developing countries in Conference of the Parties to the Convention to Combat Desertification. This fund changed its name to the "Special Fund" in 1999.

(2) United Nations Environment Programme (UNEP)

(i) UNEP had been monitoring desertification before the Convention to Combat Desertification was drafted, and created the "World Atlas of Desertification" in 1992. The second edition was subsequently drafted in 1997. UNEP regularly publishes the "Desertification Control Bulletin" to educate people about desertification. By request of the Science and Technology Committee set up by the Convention to Combat Desertification at the first Conference of the Parties, UNEP conducted a study on institutions and organizations able to take part in a global network. Support for various countries included support for preparing a national action programme and a domestic education programme for Kazakh S.S.R in 1998, as well as projects to reclaim and manage land and to stabilize shifting sand of the Russian Federation. UNEP also educates the public about desertification in South Africa. In 1998, UNEP participated in conferences to prepare action programmes for West Asia, Asia and the Pacific, Latin America and the Caribbean. The organization also provided support for preparing action programmes for sub-regions of southern Europe, the Asian part of the Russian Federation, and the southern part of Africa. UNEP furthermore held workshops for NGOs and provided various type of technical support.

Japan's recent contributions to UNEP are as follows (US\$5 million of the contributions for 1996 were transferred to the 1997 budget in accordance with budget adjustment by UNEP.

Contributions for 1997 and 1998 were transferred to the respective budgets for the next fiscal year):

(1996: US\$9 million; 1997: US\$6 million; 1998: US\$4,928 thousand)

(ii) Japan also contributes to creation of a vegetation database for Asia by converting satellite image data to figures to show change in vegetation and soil covering brought about by human activity, and providing the data to UNEP/GRID (Global Resources Information Database).

(1996: 10,835 thousand; 1997: 11,034 thousand; 1998: 10,975 thousand; 1999: 10,975 thousand)

(3) Food and Agriculture Organization of the United Nations (FAO)

(i) Between 1996 and 1998, Japan's contribution to the core budget to FAO, a permanent organization of the United Nations concerning food and agriculture, was total of US\$159 million. This is the second most of all countries. Japan also voluntarily contributed approximately

US\$15 million to the FAO's trust fund to help combat desertification through the agricultural, forestry and fisheries projects of the FAO. Japan's contributions to the FAO are as follows:

üE Contribution to the Core Budget

(1996: US\$53 million; 1997: US\$54 million; 1998: US\$53 million; 1999: US\$65 million [scheduled])

üE Voluntary Contributions

(1996: US\$6 million; 1997: US\$5 million; 1998: US\$4 million [scheduled])

(ii) Of the FAO field projects to which Japan contributes on a voluntary basis, those closely related to combating desertification are as follows:

üE Information System for Water Resources Monitoring and Planning in the Lake Victoria Region

(1996: US\$500 thousand; 1997: US\$400 thousand)

üE Mithawan Watershed Management in Pakistan

(1996: US\$300 thousand; 1997: US\$200 thousand)

üE Strengthening Country Capacity in Forest Resource Assessment for Sustainable Forestry Planning in the Asia-Pacific Region

(1996: US\$250 thousand; 1997: US\$150 thousand)

üE Support to the Reorientation of Forestry Policies and Institutions of Countries of Asia in Reform to a Market Economy

(1996: US\$440 thousand; 1997: US\$440 thousand; 1998: US\$340 thousand)

üE Agricultural Land and Water Information for Sustainable Agricultural Development (in Latin America and the Caribbean)

(1996: US\$430 thousand; 1997: US\$430 thousand; 1998: US\$390 thousand)

üE Study on Irrigation Potential for Africa

(1996: US\$280 thousand; 1997: US\$280 thousand; 1998: US\$250 thousand)

(4) World Food Programme (WFP)

WFP is an international organization that provides food in the form of emergency food aid and assistance to developing countries. Activities related to the combating desertification include:

(1) emergency food aid for people suffering from hunger due to the effects of drought, (2) Food For Work (FFW: provides food to compensate for work in order to relieve people from chronic hunger, and at the same time, promote self-sufficiency and create an asset) project through which trees are planted and irrigation waterways are restored. Japan's contributions for supporting WFP activities are as follows:

(1996: US\$124,032 thousand; 1997: US\$98,991 thousand; 1998: US\$123,757 thousand) (Note: these include food aid under the Food Aid Convention, and emergency grant aid.)

(5) International Fund for Agricultural Development (IFAD)

The International Fund for Agricultural Development (IFAD) is an organization that provides financing for development especially for the field of agriculture. IFAD is involved with desertification issues through technical cooperation in the form of grant for research of farming methods for arid areas and financing for agricultural projects for preventing desertification in agricultural areas. Having been selected as the host organization to house Global Mechanism of Convention to Combat Desertification to secure financial resources for affected parties to combat

desertification, IFAD should be able to largely contribute to combating desertification on the global scale through such activities, with the cooperation of the World Bank and UNDP, who are also working in cooperation with the Convention to Combat Desertification. As a member since IFAD was established, Japan has contributed a total of US\$220 million over four replenishments since the initial contribution. Japan is the third largest contributor, accounting for approximately six percent of contribution to the IFAD activities.

(6) United Nations Development Programme (UNDP)

UNDP has constructed a data network on desertification that covers Africa, the Middle East, Latin America, and the various regions of Asia. UNDP also hosts workshops on water supply management in desertified areas, and trains personnel by implementing pilot projects, etc. Japan has contributed a total of US\$555.7 million to the international organization between 1996 and 1999.

(7) World Meteorological Organization (WMO)

The World Meteorological Organization (WMO) supports the activities of national Meteorological Services to establish and maintain systems of collecting meteorological information on droughts and desertification and providing the necessary data and information in a timely manner to policy-makers and agricultural institutions through its scientific and technical programmes such as the World Climate Programme and the Agricultural Meteorology Programme. WMO also helps improve the capacity of related national Meteorological Services through training. Japan annually contributes to WMO's regular budget in accordance with the WMO Convention and makes contributions to the Voluntary Cooperation Fund. Between 1996 and 1999, Japan made contributions of a total of ¥2,761 million to WMO.

(1996: ¥612,825 thousand; 1997: ¥738,499 thousand; 1998: ¥742,067 thousand; 1999: ¥667,894 thousand)

(8) United Nations Educational, Scientific and Cultural Organization (UNESCO)

None of UNESCO's projects are implemented directly with voluntary contributions from Japan, but Japan pays 25 percent (1999) of the assessed contributions from member countries (1997: ¥6,553 million; 1998: ¥7,184 million; 1999: ¥8,301 million). Projects for combating desertification are included among UNESCO projects implemented with member countries' assessed contributions.

As part of the Man and the Biosphere (MAB) programme, a workshop on growing crops on arid land was held in Israel in March and April of 1997 by the initiative of African countries under the framework of the International Programme on Arid Land Crops (IPALC). As a result, a short-term fellowship of young researchers from the countries of West Africa was implemented and a regional workshop was held in Niger.

As part of a special project concerning "Women and water resource supply and use," UNESCO conducted study on water resources and women's needs in Niger and Chad, and conducted a joint evaluation with a Canadian university concerning water quality and the living conditions of women in Burkina Faso. A project for improving women's participation in water resources management was implemented with the assistance of French Agence in Mauritania. Regional

training course was organized in co-operation with the International Water and Sanitation Centre, for representatives from ministries and NGOs from nine African countries. UNESCO also allocated grants for African students to undertake research activities in the field of water resources, implemented a pilot project to utilize rainwater in Kenya (till 1999), and organized regional workshops in South Africa in partnership with UNICEF and UNDP / World Bank in November 1997. A special project to implement these recommendations is scheduled to be launched together with UNICEF and UNDP / World Bank during the 1998 - 1999 biennium.

Moreover, with the International Hydrological Programme (IHP), support is provided for general water quality control in arid and semiarid regions, and for ground water research in the Sahara and surrounding area.

(9) Consultative Group on International Agricultural Research (CGIAR)

The objectives of the CGIAR are to enhance sustainable productivity of agriculture, forestry and fisheries, increase food production in developing countries through long-term and organized support for international agriculture, forestry and fisheries research, and to enhance welfare of local inhabitants as an affiliation of 16 international agriculture research centers. As part of the measures to combat desertification, International Crops Research Institute for the Semi-arid Tropics (ICRISAT, based in India) conducts research on crops that can grow on arid land. Japan contributed \340 million to ICRISAT in 1998.

(10) United Nations Industrial Development Organization (UNIDO)

UNIDO is dedicated to promoting development of industry in developing countries, and in recent years has been involved in developing environment-friendly, sustainable industry in Africa. In order to improve excessive gathering of firewood and charcoal, which is one of the main causes of desertification, UNIDO contributes by supporting development of technologies to promote use of alternate sources of energy (solar and wind power), and holding international symposiums. Of all the member countries, Japan contributes the most to UNIDO. Contributions are as follows:

Contribution to core budget:

(1996: \2.09 billion; 1997: \2.18 billion; 1998: \1.75 billion)

Voluntary contributions:

(1996: \630 million; 1997: \520 million; 1998: \300 million)

Part of Japan's contributions are used for projects designed to promote alternative livelihoods in areas of Africa affected by desertification, for example the project to promote development of the traditional fiber industry in the West African region of Mali (approx. US\$270 thousand), and the project to foster female entrepreneurs in industrial fields related to agriculture in Ethiopia (approx. US\$850 thousand).

(11) International Bank for Reconstruction and Development (IBRD; the World Bank)

The World Bank cooperates in combating desertification by stressing the correlation of poverty and soil degradation and promoting revitalization of agricultural village development strategies. As the second largest backer of the World Bank next to the United States (IBRD/IDA) (8.22% as

of June 1998, 18.00% after the 12th replenishment), Japan supports development support activities of the World Bank, including combating desertification. In order to indirectly support development support activities of the World Bank, Japan contributes to the Policy and Human Resource Development (PHRD) fund used for technical support provided by the World Bank (budget for 1999: 8,940 million). Development support activities of this fund include projects that contribute to combating desertification.

Projects that would help combat desertification include: the Community-Based Rural Development Project in Burkina Faso (received US\$0.4 million from PHRD); the Sana's Water Basin Management Project in Yemen, (0.5 million), and the Environmental Support Programme in Cote d'Ivoire (US\$0.4 million).

#### (12) Global Environment Facility (GEF)

The Global Environment Facility (GEF) is the financial mechanism for providing new and additional grant and concessional funding to meet the incremental costs of measures taken by developing countries and countries with economies in transition to achieve agreed global environmental benefit in the following focal areas:

- (a) climate change;
- (b) biological diversity;
- (c) international waters; and
- (d) ozone layer depletion.

The incremental costs of activities concerning land degradation, primarily desertification and deforestation, shall be eligible for funding when they relate to the four focal areas mentioned above.

Japan contributed about US\$415 million to GEF1 in a 4 year period from July 1994 to June 1998. The Amount accounted for about 20.5 % of the GEF1 capitals (about US\$2.02 billion) and was the second largest next to that of the United States. Moreover, Japan has pledged to contribute about US\$413 million to GEF2 in a 4 year period from July 1998 to June 2002. The amount accounts for about 20.0 % of the GEF2 new money about US\$ 2.06 billion and is the largest next to that of the United States. Japan also participates as the Member of the council held biannually. Along with providing advice concerning the operation, including project approval, etc., Japan also contributes to effectiveness and efficiency of GEF financed-activities by dispatching advisors to the Scientific and Technical Advisory Panel (STAP) to provide scientific and technical advice on the GEF portfolio and projects.

#### (13) African Development Bank (AfDB)

The African Development Bank (AfDB) provides development support for combating desertification, such as water supply projects in Tunisia, and irrigation projects in Zimbabwe.

Japan supports development support activities of the AfDB Group, including combating desertification. Following the United States, Japan is the second largest contributor to the AfDB (13.89% as of 1997), and is the largest backer of the African Development Fund (AfDF) (14.56% as of 1997).



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