



## Striving to Save our Environment

JICA partners with the Ministry of Water and Irrigation (MWI) and Water Resources Management Authority (WRMA) in the area of water resources management and development. This was marked by the commencement of The Study on Integrated Flood Management for the Nyando River Basin and the signing of the Exchange of Notes for the Rural Water Supply Project.

An Environmental Impact Assessment (EIA) license for the Kapsabet Water Supply Project was also issued giving the green light for the project to begin. Preparations are being made to dispatch the Basic Design Study Team. The signing of the Partnership Principles by GoK and Development Partners marked a turning point in the approach to development in this sub-sector which was highlighted by the convening of the Water Sector Conference and Sector-wide Approach to Planning (SWAP) Launch at the end of October.

In the forest sub-sector, the Joint Mid-term Evaluation Team of the Intensified Social Forestry Project (ISFP) gave a positive verdict to the collaboration between JICA and the Forest Department (FD) and the Kenya Forestry Research Institute (KEFRI). Two Regional Training Courses were also held at KEFRI under JICA's Third Country Training Programme (TCTP). At the same time, the approval by the Kenya Wildlife Service (KWS) of the Conservation Education Strategy compiled with JICA's assistance through

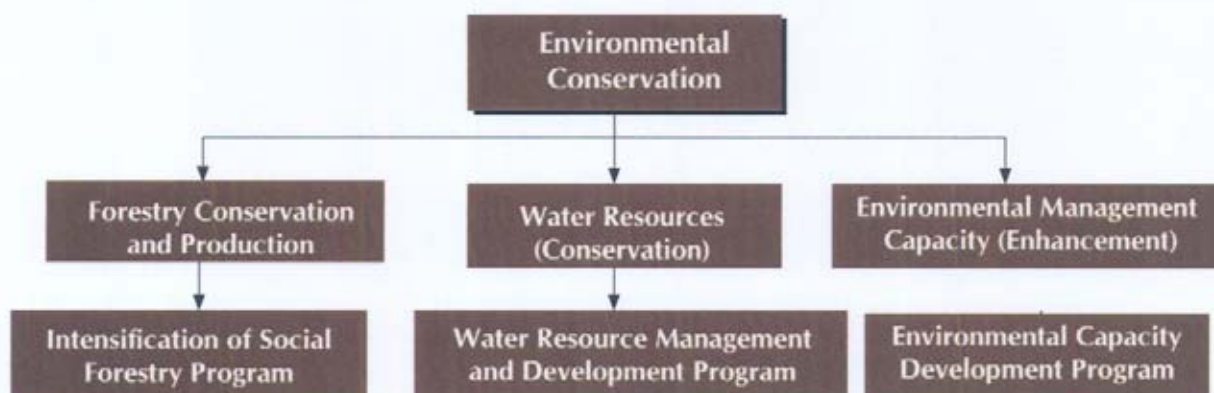
the Strengthening of Wildlife Conservation Education (SOWCE) Project was a positive sign of this project's achievement. Development Partners also formed a wildlife sub-group to enhance coordination and harmonization of activities. Further collaboration in the area of environmental management capacity continued through the Project for Improvement of Environmental Management Capacity in Nakuru Municipality and the Surrounding Areas.

Some of the important events in the sector included the visit to KEFRI by Japanese Members of Parliament in May and July, during which the importance of Japan's assistance in the forestry sub-sector was recognized. In November, Japan's Minister for Environment headed Japan's delegation to the United Nations Climate Change Conference (COP 12), and also had the opportunity to be exposed to Kenya's precious wildlife while visiting the SOWCE Project at KWS.

### Past Support to Environment Conservation

Collaboration with Government of Kenya (GOK) in the Environment Sector has progressively developed over the years. The Social Forestry Training Programme (SFTP) and Social forestry Extension Model (SOFEM) were implemented through the Forestry Conservation and Production Scheme and became precursors to the presently ongoing

### Support to Environmental Conservation







Intensified Social Forestry Project (ISFP) and the Third Country Training Programme on adoption of Social Forestry in Africa. Under the Water Resources Conservation Scheme, JICA added a Technical Cooperation input to the Meru Water Supply Project that was implemented through Grant Aid by dispatching an Expert and Counterpart Training. JICA has also carried out several Development Studies such as the National Water Masterplan (1992), Water Supply in Seven Towns in Eastern Province (1997), and the Aftercare Study on the National Water Masterplan (1998) to name a few. Other studies include the Basic Design Study for Rehabilitation and Expansion of Nakuru Sewerage Works (1993) and the Basic Design Study on Ground Water Development in Rural Districts (Machakos, Makueni, Kitui and Mwingi) (2004) among others.

## On-going Projects

### 1. Intensified Social Forestry Project (ISFP)

The project targets farmers in the semi-arid areas of Kitui, Mbeere and Tharaka districts with focus on institutional and technical capacity building of the Forest Department, intensification of social forestry extension activities among farmers and farmer groups as well as effective information sharing among the relevant stakeholders for social forestry development. (See Highlight on Page 16.)

### 2. Strengthening of Wildlife Conservation Education (SOWCE)

The Second Joint Coordinating Committee meeting of the Strengthening of Wildlife Conservation Education (SOWCE) Project was held in mid-September to review the results of the annual work-plan and the progress of the project, and also chart the way forward. Considering that it was held at around the middle of the life-span of the project that is scheduled to end in January 2008, the meeting was a very significant landmark. A lot of progress has been made especially in the development of the Conservation Education Strategy under the strong leadership of KWS. This culminated in the adoption of the strategy by the KWS Board of Trustees towards the end of October 2006 highlighting the achievement of one of the outputs of the project.

Another expected output is the strengthening of the capacity of KWS education officers in the field. Towards this end, three workshops were held during the year. These were the Training Workshop on Programme Development with Hands on Material, the Training Workshop on Presentation Skills and Audio-Visual Material Development, and the Community/KWS Exposure and Exchange Workshop. From these developments, it is expected that the project's purpose of strengthening the institutional capacity of KWS for effective implementation of wildlife conservation education will be achieved by the time the project comes to an end.

### 3. Nakuru Environmental Management Project (NEMP)

Famous for its high population of lesser flamingo (*Phoeniconaias minor*), Lake Nakuru lies at the bottom of a closed basin with no out-flowing rivers. The lake is therefore susceptible to all kinds of pollution resulting from environmental degradation arising from change in land use, and from increased urbanization and industrialization. All these pose a threat to the economy of the region in the short run and the ecosystem at large in the long run.

In response to these challenges, the Project for Improvement of Environmental Management Capacity in Nakuru Municipality and the Surrounding Areas (NEMP) was formulated with JICA's assistance at the request of the Government of Kenya and started in February 2005. To supplement the activities of the Department of Environment that was set up within the Nakuru Municipal Council in 2001, the purpose of this project is to improve the environmental management capacity of the Council in water related areas. This includes capacity development



*Subdivision of land for cultivation has led to severe deforestation of the once thick indigenous Mau Forest.*





in water quality monitoring and testing (WQTL), promotion of concerted actions of the lead organization with regard to sustainable actions for watershed management, and the enhancement of public and private participation in environmental management.

Ms. Margaret Huro Kuibita, a staff member of Municipal Council of Nakuru, attended a one and a half month course in Japan on Construction of a Model Environmental City by Community Participation. This project is scheduled to continue up to January 2009.

#### 4. Third Country Training Programme (TCTP) on Adoption of Social Forestry in Africa

The high reliance on wood resources by communities in developing countries has led to serious environmental degradation. In order to counter this tendency, the practice of social forestry contributes to environmental conservation, poverty reduction, food security and sustainable rural development. This calendar year was therefore quite busy for the staff at the Kenya Forestry Research Institute (KEFRI) since not one but two Regional Training Courses on Enhancing Adoption of Social Forestry in Africa were conducted.

According to the Record of Discussions, KEFRI is supposed to run four such courses under JICA's Third Country Training Programme (TCTP) from Japanese FY 2005/6 to 2008/9. A maximum of 20 participants invited from Angola, Botswana, Burundi, Eritrea, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe are expected to attend each course. However, not to be left out this year, Madagascar, though not one of the target countries requested to send two participants to the second course using her own budget. This is testimony that the popularity of the course has spread even further afield.

#### 5. Study on Integrated Flood Management for the Nyando River Basin

The 66% incidence of poverty in Nyando linked to the perennial flooding of the river is what led to the Government of Kenya requesting the

Government of Japan for technical assistance to carry out a study and prepare an Integrated Flood Management Plan for the Nyando River Basin. The Study on Integrated Flood Management for the Nyando River Basin was thereafter launched on 3rd August, 2006 during a national workshop for stakeholders organized through collaboration between JICA, the Ministry of Water & Irrigation and the World

Meteorological Organization (WMO). The study will cover the 2,606 km<sup>2</sup> Nyando River Basin drainage area and the other flood prone areas crossed by the Ombeyi, Miriu and Nyamasaria rivers.

The objectives of the study are threefold:

- ◆ To formulate an integrated flood management plan for the Nyando River Basin. This will involve a review of existing flood control plans, and also community based activities.
- ◆ Support communities to strengthen their capacity in flood management.
- ◆ Develop the flood management capacity of concerned authorities through on-the-job training on site in the implementation of pilot projects.

Promotion of human security will be the key concept in this study. The guiding principle is to directly protect the vulnerable communities adversely affected by floods by empowering them to confront the threats posed to their lives, livelihood and dignity. While taking into account findings and recommendations from previous studies on flood management, this study will fully involve stakeholders drawn from government ministries and institutions, NGO's, CBO's and the private sector. The implementing agency is the Water Resources Management Authority (WRMA).



*JICA Study team observes gully erosion cutting communication in the middle watershed.*





*Tedious manual search for water in a dry river bed.*

## Grant Aid Project

### 1. Rural Water Supply Project

Though the coldest month in Kenya was only two days away, it was a hot and dusty day in Kitui District at the end of June as JICA and Ministry of Water and Irrigation staff traversed Mutonguni Division along crisscrossing dirt roads towards Mithikwani. Their mission was to hand over handpump facilities at borehole No. 14 to the Mithikwani community. This is one of the four sites that were test drilled by JICA consultants during the Implementation Review Study of the Rural Water Supply Project.

Due to the seasonal availability of surface water in Arid and Semi-Arid Lands (ASALs), communities in these areas depend largely on ground water.



*Test drilling in one of the target areas.*

In Machakos, Kitui, Mwingi and Makeni, districts, the rates of access to safe water are 36.4%, 9.8%, 9.8%, and 14.2% respectively. Through Japanese Grant Aid following the Exchange of Notes between the Government of Kenya and the Government of Japan signed on 1st September 2006, actual work on the ground for The Project for Rural Water Supply is poised to commence in early 2007. The project is planned to benefit 124 communities in the four districts through the drilling of bore holes, provision of pumps, and the rehabilitation of one spring water supply facility. The project will also include a soft component that involves capacity building of the targeted communities with regard to operation and maintenance of the facilities, and the local administration in terms of supporting the communities.



*Handing over of hand pump facility at Mithikwani.*





A presentation at Kanini Kaseo Farmers Field School in Kitui, and (inset) measuring the height of a grafted mango tree during AESA Kwa Macembe FFS.

## A Closer Look at Farmers Field Schools

The lady standing under the tree faces the gathering and clearly intones “Ef – Ef - Ess!” in greeting and.... “Clap Clap Clap,...Clap Clap Clap,... CLAP!” is the rhythmic clapping response from her audience. This is done twice by anyone wishing to speak at any Farmers Field School. This time, it is Gaudensia wa Njuki, Vice-Secretary of Kwa Macembe Farmers Field School (FFS) in Mbeere District addressing her fellow graduates and the Integrated Social Forestry Project (ISFP) Joint Mid-term Evaluation Team led by JICA’s Resident Representative, Mr. Kano. It is the beginning of AESA (Agro Ecosystem Analysis) of the group’s plot where grafted mango and ‘mukau’ (*Melia volkensii*) trees have been planted.

FFS extension methodology is the engine for implementation of the ISFP in Arid and Semi-arid Lands. Farmers meet once a week to carry out AESA which involves observation of the development and interaction with other co-existing factors of trees/crops planted on their plots. The project has targeted communities at the grassroots level and Kwa Macembe is one of the 48 first cycle FFS groups run by FD extension staff that have already graduated. From these groups, 104 farmers have been trained, qualified as farmer facilitators and are supposed to establish and support additional Farmer-Run FFS. The participatory approach is supposed

to ensure ownership and enhance sustainability.

On the practical level, in practicing what they have learnt from FFS, farmers are already engaging in the establishment and maintenance of tree nurseries for seedling propagation, planting grafted mangoes, cropping with improved techniques, inter-cropping, maintaining woodlots, orchards and fodder banks. However, findings of the Joint Mid-term Evaluation carried out in mid July by JICA and Forest Department (FD) reveal that apart from the material benefits that farmers will reap from social forestry, there are also some non-tangible gains. Members of the FFS interviewed cited cohesiveness of their groups and better time management as additional benefits among others.

The project presently covers three pilot districts: Mbeere, Kitui and Tharaka. However, selected foresters and DFOs from Malindi, Kilifi, Laikipia, West Pokot, Meru South, Rachuonyo and Kwale districts have been trained in ISFP FFS extension system and are in the process of preparing action plans. The purpose of this project is for individual farmers, farmer groups and other stakeholders to intensify social forestry practices in semi arid areas. This is expected to improve their living standards and also to enhance sustainable environmental conservation.





## Advancing Knowledge, Creating a Better Future

Human resource or human capital is the greatest asset for national development. This is because development depends and is based on what people initiate, plan, execute and progressively improve to achieve higher levels in any given human endeavour. The state and rate of a country's socio-economic and technological development is determined by capability, quality, effectiveness and efficiency of its human resource in any given field or sector.

JICA emphasizes capacity development in its programs to ensure their sustainability as indicated in Figure below.

### Past Support to Education and Human Resource Development

A number of projects have been initiated in Kenya in this field such as Jomo Kenyatta University of Agriculture & Technology (JKUAT) (1980 - 2000), African Institute for Capacity Development (AICAD), and Strengthening of Mathematics and Science in Secondary Education (SMASSE).

### On-going Projects

#### 1. SMASSE

The performance of mathematics and science in Kenya and in many African countries has been

relatively poor as revealed by a JICA sponsored study in 1995, whose recommendations led to the launching of a Ministry of Education (MOE)-JICA technical cooperation for Strengthening Mathematics and Science in Secondary Education (SMASSE) project piloted in nine Kenyan districts for a period of five years with effect from July 1998.

The project's overall goal is to upgrade Kenyan youth capability in mathematics and science through in-service training (INSET) of the teachers of these subjects. The training is a cascade model whereby eight selected teachers from Kenya Science Teachers College (KSTC) were trained in Japan as project's national trainers. KSTC laboratories were upgraded and KSTC became a SMASSE INSET national centre. From each of the subject (mathematics, chemistry, physics and biology) four teachers were competitively selected by merits from each of the nine districts and trained as district trainers for the subjects. The facilities in selected secondary schools were enhanced with funding from JICA-MOE to make them district SMASSE INSET training centres under management of District Education Officers and school principals. Each of these caters for about 200 participants. The district trainers train all mathematics and science teachers from all the secondary schools at these centres.

### Support to Education and Human Resource Development

