



JICA 2016

JAPAN INTERNATIONAL COOPERATION AGENCY

ANNUAL REPORT
KENYA OFFICE



TICAD VI and BEYOND



TICAD VI and BEYOND

Photo by Takeshi Kano

A historic event - TICAD VI held in Nairobi in August 2016

Cover photos (clockwise):

- Improvement of quality of health service through mentorship
- ABE Initiative Participant Harrison Odhiambo explains his research at the Dandora dumpsite to JICA and Nairobi County staff
- Rusumo One Stop Border Post (OSBP) supported by JICA – Rwanda/Tanzania border
- Engineers at the Kenya Electricity Generating Company (KenGen)
- Charles Mureithi, training ex-participant who won second place in the National Farmers Award, 2016
- JICA Senior Volunteer teaches students about farm machinery

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About Us: The Japan International Cooperation Agency (JICA)





Chief Representative's Message

TICAD VI and BEYOND

Keiko Sano | Chief Representative, JICA Kenya Office

It is my pleasure to share with you JICA Kenya Office's activities and achievements in 2016 through this Annual report whose theme is **"TICAD VI and BEYOND"**.

In August, 2016, we all in Nairobi saw with our own eyes the remarkable success of TICAD VI - the Sixth Tokyo International Conference on African Development - as the very first TICAD held on the African soil and a manifestation of African ownership of its development process. TICAD started in 1993 and continues to serve as a pioneering, open and inclusive forum for international cooperation on African development through a multilateral framework.

TICAD VI outcome document is the Nairobi Declaration, which was adopted at the closing session of the conference. As stated in the declaration, TICAD VI came about at a critical juncture of translating global vision into concrete actions for Africa.

The international community agreed upon the Sustainable Development Goals (SDGs) at the UN summit in September, 2015, aiming at realization of a world where no one is left out of the benefits of development. In Africa, Agenda 2063 was adopted at the AU summit in January, 2015, which articulates the continent's development vision, aspiration, goals and priorities. The SDGs and Agenda 2063 are interrelated and therefore their implementation through an integrated approach with strong commitment is necessary.

In this regard, TICAD VI provided a great opportunity to affirm or reaffirm the multi-stakeholders' engagement including African countries' ownership for advancing Africa's sustainable development by identifying three pillars to address the major challenges in Africa and international development priorities.

JICA Kenya Office covers Kenya, Eritrea, Seychelles and Somalia, and has been promoting comprehensive cooperation for the sustainable and inclusive development in these countries. In Kenya, for instance, we are implementing various projects to strategically respond to the nation's needs in the areas of Economic Infrastructure, Agriculture Development, Human resource development, Health, and Water/Environment.

I hope that you will find in this report, concrete examples of our activities in these sectors and how they are relevant and contribute to three pillars of the Nairobi Declaration in the respective African countries on the ground.

Lastly, let me express my sincere gratitude to the people of Kenya for the warm hospitality extended to the participants of TICAD VI. We at JICA Kenya Office are indeed humbled and continue to cherish working with the African people in advancing sustainable and inclusive development.

2016 at a GLANCE

**JAPANESE FISCAL YEAR
(April-March 2015)**

Technical Cooperation

5.004

**Billion
Japanese Yen**

JICA's ODA Loan

10.875

**Billion
Japanese Yen**

JICA's Grant Aid

0.978

**Billion
Japanese Yen**

Training Participants (New)

292

Persons

Experts (New)

242

Persons

JICA's Volunteers (New)

25

Persons

Note: JICA's ODA Loan is based on the amount of disbursement.

JICA's Grant Aid is based on the amount of signed Grant Agreement.

JICA's Volunteers include Senior Volunteers in addition to JOCV.

1USD = ¥119.027 (March 2015)

Source: JICA 2016 Annual Report Data Book



Rice Grown Using Water Saving Rice Culture (WSRC)

2016 Highlights

The Japan International Cooperation Agency, JICA, seeks to partner with Kenya by providing support towards the development of economic infrastructure, agriculture, the environment and water, human resource development, and health.



In 2016, JICA continued to make significant strides to implement and oversee various projects and programmes that contribute to both Kenya's Vision 2030 and the United Nations' Sustainable Development Goals.



Nairobi city in the sun. (Photo-TICAD Website)

1

TICAD VI

Demonstrating increasing ownership by Africa, the Sixth Tokyo International Conference on African Development (TICAD VI) was held in Africa for the first time since inception of the TICAD process in 1993. Kenya was greatly honored to be the first host of TICAD outside Japan.

3

ENERGY

KenGen MD, Eng. Albert Mugo received the 12th JICA President Award for strong partnership and outstanding contribution towards the development of the Olkaria I Unit 4 & 5 Geothermal Power Project.



2

INFRASTRUCTURE

President Uhuru Kenyatta commissioned Phase I of the Second Container Terminal at Mombasa Port, supported by Japan

4

PRIVATE SECTOR DEVELOPMENT

Supported productivity improvement, innovation and management level capacity development at Small and Medium-sized Enterprises (SMEs) in collaboration with Japanese experts. Human Resource Development for Industrial Development is a Technical Cooperation project implemented by the Kenya Institute of Business Training (KIBT).





Participants on 5S-KAIZEN-TQM Exchange Visit and Joint Learning to Kericho County Hospital



5 HEALTH

Centres of excellence in Quality Improvement set up at hospitals across the country. Targeting improved health care provision at the counties.



6 AGRICULTURE



The Smallholder Horticulture Empowerment and Promotion (SHEP) approach, helped farmers to increase their incomes by addressing market needs using techniques such as Growing to Sell, which involves extensive market research, as opposed to Growing and Selling, where little planning takes place.



7 HUMAN RESOURCE DEVELOPMENT

JICA Training ex-participant Charles Mureithi won second place in the 2016 National Farmers' Award in category was Small Scale Farm Geared towards Full Commercialisation. He begun "green tourism" on his farm, a concept he learnt in Japan.



8 WATER & SANITATION/ ENVIRONMENT

Continued support for provision of clean water under Rural and Urban Water Supply programs in various parts of Kenya.

9

JOCV VOLUNTEERS

JICA marked the 50th Anniversary of the Japan Overseas Cooperation Volunteers (JOCV) in 2016. Japanese volunteers have for five decades worked in different parts of Kenya, supporting JICA's five main thematic areas of development.





TICAD VI THEME: ADVANCING AFRICA'S SUSTAINABLE DEVELOPMENT AGENDA: TICAD PARTNERSHIP FOR SHARED PROSPERITY

THE TICAD VI SUMMIT



Co-organizers



The Tokyo International Conference on African Development (TICAD) is a conference co-hosted by Japan and held regularly to promote policy dialogue between African leaders and development partners.

The Sixth Tokyo International Conference on African Development (TICAD VI) was held at Nairobi's Kenyatta International Convention Centre (KICC) on the 27th and 28th of August, 2016. For the first time in TICAD history, the summit was held on African soil, demonstrating the principles of African ownership and international partnership that define the TICAD process.

TICAD VI was a huge success, having been attended by 32 African heads of state, Japan's Prime Minister, and more than 18,000 accredited participants. The summit also attracted over 300 top business executives, over 1700 representatives from Japan, and over 2000 participants from Africa. The TICAD VI theme, *Advancing Africa's Sustainable Development Agenda: TICAD Partnership for Shared Prosperity*, served as the banner for 74 concurrent side events, which were held before and during the summit.

Sub-themes

TICAD VI had three sub-themes, each of which was consistent with both the global focus on sustainable development, and the African development priorities espoused in Agenda 2063, a strategic framework for the socio-economic transformation of the African continent over 50 years, starting in 2013.

These sub-themes were:

- Promoting Structural Economic Transformation through Economic Diversification and Industrialisation
- Promoting Resilient Health Systems for Quality of Life
- Promoting Social Stability for Shared Prosperity



Nairobi city in the sun. (Photo–TICAD Website)

TICAD VI Outcomes

The summit had four major outcomes:

- The Nairobi Declaration recognised Africa as a dynamic continent, affirmed TICAD as a unique process, and conveyed a commitment to addressing the priorities set out in the summit's thematic discussions.
- The Nairobi Implementation Plan outlined strategies to promote economic transformation, resilient health systems, and social stability for shared prosperity, to be carried out over the next three years.
- The TICAD VI Business Declaration sought to fortify the role of the private sector in the TICAD Process.
- A “call to action”, arising from the Spouses Programme, invited partners to increase investment in maternal and child health and resources for the health sector in general.

Summit Benefits

In addition to the sub-themes and outcomes, several benefits have emerged as a result of TICAD VI:

- Japan will invest in Africa's future by implementing measures to develop quality infrastructure, build resilient health systems, and lay the foundations for peace and stability.
- The quality infrastructure developed as a result of these measures will create a foundation for the economy and promote private sector ventures as the core economic activities.
- To accomplish this, the private sector will be promoted through training in Human Resource Development and Productivity Improvement.
- The business environment will be improved in order to promote dialogue between the public and private sectors.



TICAD VI and Kenya

Japan pledged Kshs. 27.3 billion towards the construction of an industrial park and free trade area in Dongo Kundu, Mombasa. The first phase of this Special Economic Zone is scheduled to be completed by 2019. This project will include the development of infrastructure at the Port of Mombasa, as well as the creation of access roads, a transition line, a water supply pipeline from the mainland, sub-station drainage, power supply, and a free-trade zone.

Four international companies donated a 7.6 million-shilling mobile laboratory to the First Lady's Beyond Zero campaign, which aims to improve maternal and child health outcomes.

An agreement, dubbed the Agreement on Promotion and Protection of Investment, was signed by Kenya and Japan in order to facilitate and promote Japanese investments in Kenya.

Several private sector firms showcased their companies in exhibitions, business fora, symposia, and other side events held before and during TICAD VI.

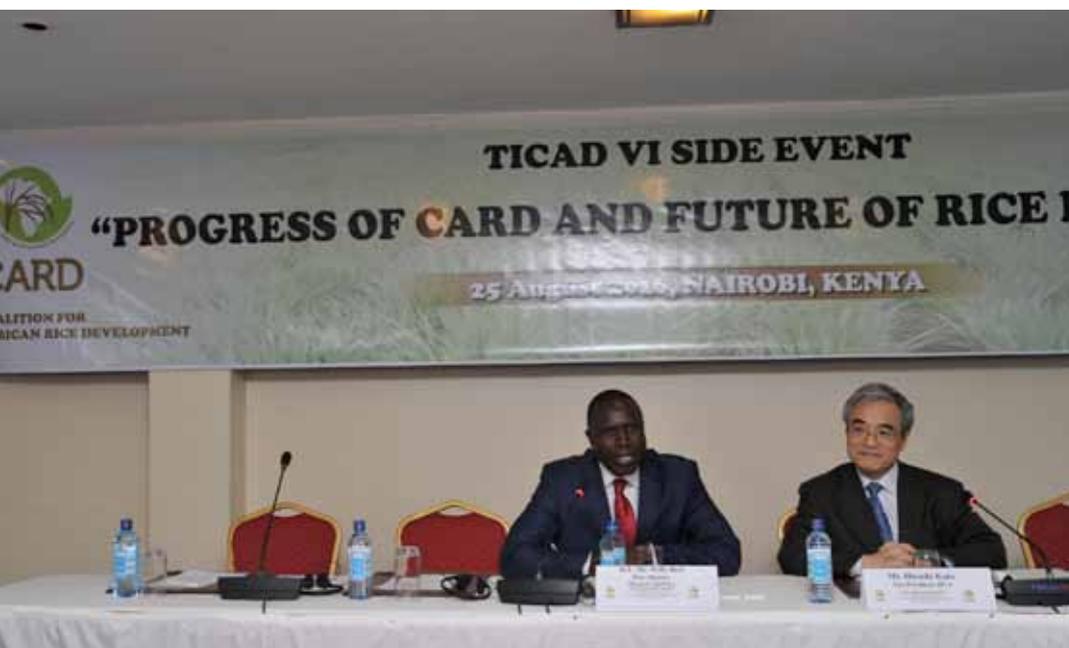
A retreat was organised by the TICAD VI Secretariat, through the Ministries of Foreign Affairs and Devolution and Planning, to review and assess the outcomes of the TICAD VI Summit. Two reports were produced as a result of the retreat: The Organisation of TICAD VI and The Substantive Outcome of TICAD VI.

Kenya at the Forefront of TICAD Implementation

The TICAD process began in 1993, with Japan trying to refocus attention on support for Africa. Since TICAD I, Japan has taken the lead in the TICAD Process, refocusing attention to issues of Africa's development. AUC's participation since TICAD V reflects Africa's ownership of the process. Also, with Kenya having hosted the first TICAD held in Africa in 2016, the country is in a pivotal position to act as a hub of TICAD aligned assistance. Kenya is leading the TICAD process as it implements various programs that have resulted from previous TICAD engagements.

Focusing on People

TICAD VI strongly supported quality of life, healthy populations, and the resolution of global challenges. For each project undertaken, JICA focuses not only on the improvement of infrastructure and processes; but also ensured that the quality of life for the populations and cultures in the areas impacted by JICA is emphasised. Where roads were improved, for instance, non-motorised transport was also taken into consideration, with sidewalks created and lights provided to ensure the comfort of the pedestrians using these roads. In the agriculture sector, gender mainstreaming ensured the prioritisation and participation of the entire family unit even as profits were simultaneously realised due to improved, market-oriented and environmentally friendly farming methods.

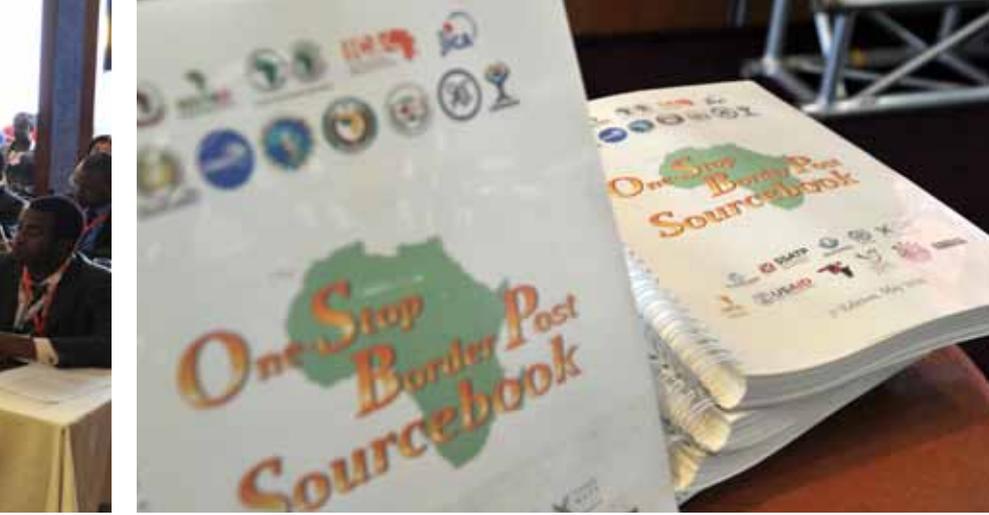




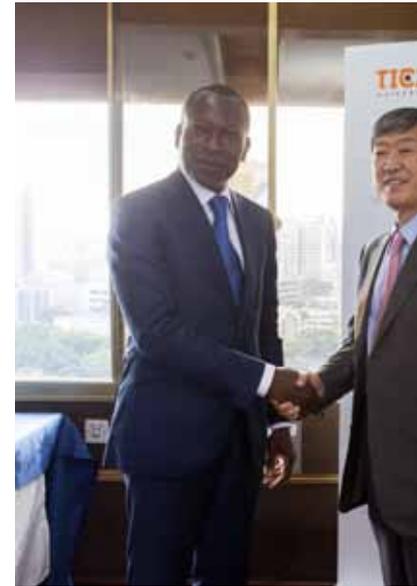
TICAD VI PICTORIAL

Photos by Shimichi Kuno and Takeshi Kuno





**TICAD VI
PICTORIAL**
Photos by Shimichi Kuno and Takeshi Kuno





PILLAR

1

Promoting Structural
Economic Transformation
through **Economic Diversification** and
Industrialisation



Olkaria 1 Units 4 & 5 Geothermal Power Station

PROMOTING STRUCTURAL ECONOMIC TRANSFORMATION THROUGH ECONOMIC DIVERSIFICATION AND INDUSTRIALISATION

TICAD VI Nairobi Implementation Plan

“We recognize that structural economic transformation through diversification and industrialization depends on progress in a range of areas. We therefore encourage public and private sector actors as well as relevant organizations to take clearly-defined measures to support...”

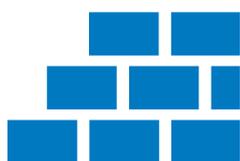
480,000

TEU

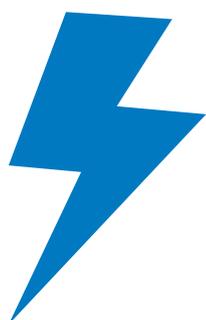
(Twenty-foot Equivalent Units)

PHASE 1

container terminal commissioned at Mombasa Port



18%
OF KENYA'S
ELECTRICITY
GENERATION



capacity financed by JICA

Comprehensive Approach Toward the Resolution of Infrastructure Predicament

Mombasa: the Gateway City for Northern Corridor and EAC

JICA's current ongoing projects include modernisation of the Port of Mombasa project and construction of the Dongo Kundu bypass which links to the new sea port container terminal and the Moi International Airport. Other projects under the grant aid scheme include formulation of the Mombasa City County Integrated Urban Master Plan (which includes logistics on the northern economic corridor), development of the Dongo Kundu Special Economic Zone (SEZ) and development of the Mombasa Port.

Nowhere does JICA's commitment to quality stand out more than in its efforts to establish quality infrastructure projects. In Kenya, transportation and energy account for 40% of the cost of production. This is a constrain to industrialization. JICA's intervention in quality infrastructure is not just about the "hard" aspects – roads, ports, and buildings – but also about the "soft" part of things: how projects affect people, how safe they are, and whether their impact contributes to the overall wellbeing of their users.

TICAD VI reiterated that projects should also be transformative and distinct. They should benefit people in the long run.

Transportation is led by urbanisation, and for this reason, JICA has seen the need to focus on regional infrastructure development, particularly urban transportation.

During TICAD VI, it was emphasised that quality infrastructure development is the way to go in Africa. From the moment a project is conceptualised, through formulation and financing, and finally to implementation, quality remains the mantra. Planning, in terms of scope, quality, and schedule, is painstakingly undertaken to ensure that projects initiated and implemented by JICA serve to promote quality economic growth not just immediately, but also generationally.

The main reason for JICA's intervention in the transportation sector is to improve the living environment and increase incomes of the people. This is attained by vitalising socio-economic activities through attainment of swift, smooth, and safe transportation of people and goods.

Building roads and bridges alone is not enough for transformational infrastructure development. Transformative transportation systems require a good

4,000 
PEOPLE EMPLOYED 
For construction of
2nd container terminal,
Mombasa Port



President Uhuru Kenyatta with Japanese Ambassador to Kenya Toshitsugu Uesawa during the commissioning of the second container terminal at the Mombasa port on September 3, 2016.

plan, and a good human resources development base including a strengthened organisation for proper infrastructure planning and maintenance. These attributes mark JICA's philosophy to develop high quality infrastructure.

In addition to the Master Plan for the port, another Master Plan had to be developed for the city of Mombasa. A Loan Agreement for the Mombasa Port Area Road Improvement Project was signed in June, 2012 to improve the transport evacuation system around the sea port.

Poor connectivity impedes growth. JICA is aware that what happens in Mombasa can affect Kenya's immediate neighbours, as well as the landlocked countries further inland which depend on the port for shipping and other crucial economic activities.

In the words of Infrastructure and Evaluation Advisor, Dr. Steve Mogere, "The port is the barometer of how the hinterland is doing." This is why the Northern Economic Corridor, which stretches about 50km on each side of the old railway line, is crucial.

Nairobi city is known for congestion and traffic jams, which cost the country millions of shillings every single day. JICA's Northern Economic Logistics Master Plan seeks to take further steps to alleviate the issues currently plaguing Northern Corridor on logistics. While the road network is generally in good condition, and there is a standard gauge railway which promises to have a positive impact nationwide, timely delivery of goods and services is an area that still needs major improvements.

JICA is seeking to partner with Kenya to create a super trade corridor from Mombasa Port to Malaba and even further to the great lakes region. With the objective of reduction of transportation costs in mind, special economic zones, industrial parks and planning of secondary cities, known as "growth nodes", would need to be put in place to re-engineer the economic growth engine.

Another distinctive area of JICA cooperation has been in road maintenance. For 15 years, JICA has managed to partner with Kenya to re-organise road administration, re-align maintenance system of roads and improve public transport, which is an issue that needs to be addressed, especially in Nairobi.

Over the years, modal share of rail to road has deteriorated. Today, only 3% or less of Kenya's transport takes place by rail. However, even if the modal share were to rise to the world average of about 40%, road networks would still need to be expanded and, by extension, roads would still need to be maintained.

Enhancement of Urban Transport Infrastructure

Nairobi's rapid development in recent years has not come without its challenges. Reliable transportation systems, functioning distribution networks, and clean energy are crucial to the connection of supply chains and access to goods and services across the nation.

Nairobi currently faces several infrastructural challenges, with traffic jams, poor urban mobility, and population growth. As the capital city of East and Central Africa's largest economy, and with competition swiftly coming in from neighbouring Tanzania and Uganda, it is imperative that Nairobi solves these challenges in a way that ensures not only continued economic growth, but also the comfort of those who use it.

In 2016, President Uhuru Kenyatta launched a project to enlarge Nairobi's congested Ngong Road into a dual carriageway. The project, which covers 2.6km, involves upgrading of Ngong Road into a four-lane road and provision of facilities for pedestrians and cyclists.

This project, which is the first phase of a wider project to reduce congestion on Ngong Road, is being funded by the Japanese government through JICA and is expected to be completed by August, 2017.



A section of Ngong Road currently under construction (Artist impression)

Strengthening Kenya's Economy

Quality, Reliable, Affordable and Cleaner Power

Geothermal energy is heat from within the earth that can be used to generate electricity. It is a renewable form of energy (i.e. clean power). Once the steam is used, it can be cooled back into liquid water and pumped back into the ground. It is extracted from the earth without burning fossil fuels, and has a much lower level of emissions than other forms of energy. As such, geothermal energy mitigates global warming.

For decades, Japan has shared its geothermal energy expertise with other countries. Through JICA, that expertise has been brought to Kenya in the form of systematic capacity building and power plant construction projects with the Geothermal Development Company (GDC) and the Kenya Electricity Generating Company (KenGen) respectively. These experiences have resulted in remarkable improvements in Kenya's geothermal resource management, planning and development, as well as on-the-job training in drilling techniques.

Geothermal energy is an indigenous resource abundantly found in Kenya's Rift Valley. The estimated potential is more than 10,000MW. Unlike hydroelectric power, the availability of geothermal power does not depend on the prevailing weather conditions. Due to its consistency, geothermal energy provides stable bulk

electric energy, making it the best base load and the most economical power option for "clean", sustainable economic growth in Kenya. It is, therefore, the best candidate in addressing Sustainable Development Goal (SDG) 7: "Ensure access to affordable, reliable, sustainable and modern energy ('clean' energy) for all". Geothermal energy is environmentally friendly because it has no combustion process. It does not produce any gas pollutants or combustion air emissions. For instance, geothermal power plants produce very little carbon dioxide.

The value of geothermal energy for direct use is becoming widely recognised in Kenya, with encouraging results. Examples of this would be the Hot Water Pools in Olkaria and Lake Bogoria, the hot water supply to control temperature and humidity in greenhouses, milk pasteurisation, aquaculture, and other domestic uses.

JICA has assisted in developing the GDC Geothermal Development Strategy by assessing the geothermal resource capacities of various GDC Prospects and recommending the most economic approach to the development of geothermal resources in Arus, Baringo, Korosi, Chepchuk and Paka along the Rift Valley.

In December, KenGen was awarded the 12th JICA Presidential Award for strong partnership and outstanding contribution towards the development of the Olkaria I Units 4 and 5 Geothermal Power Project.

Japan has made a major contribution to projects in Kenya's power subsector over the years. By 2019, this support will account for about 20% of Kenya's total installed capacity. This accumulated support includes Kipevu Diesel (75MW), Sondu-Miriu (60MW), Sangoro (21MW) and Olkaria I Units 4&5 (140 MW). JICA has made



Eng. Albert Mugo receives the 12th JICA Presidential Award for strong partnership in Olkaria I Units 4 & 5 Geothermal Power project

a commitment to support another 140MW at Olkaria V, and 70MW Olkaria additional Unit VI. JICA is currently supporting around 18% of the country's peak demand of 1600MW.

In addition to power generation, JICA is supporting the Kenya Electricity Transmission Company (KETRACO) for the Olkaria-Lessos-Kisumu transmission line, to stabilise electricity transmission to the Western part of Kenya. It is also a key connector to the East African region power pool.

To enhance the volume and security of Kenya's power supply, which would by extension provide for stable investment and economic growth, JICA and the National Treasury signed a Loan Agreement on 9th March 2016 amounting to 45.690 billion Japanese Yen (approximately 40 billion Kenyan shillings) for the construction of the Olkaria V Geothermal Power Plant.

Beside the power plant, the loan will go towards the construction of a steam-gathering system, a transmission line, and a substation. KenGen will be the executing agency for this collaborative project. All three contracts have been awarded, and the ground breaking ceremony is expected to take place in April, 2017.

Following the commissioning of 280MW (140MW financed by JICA) Geothermal Power, the capacity of geothermal energy in Kenya increased rapidly, reaching 632MW by June 2016. Power outages reduced drastically because of increased geothermal bulk supply to the grid replacing the seasonal hydro.

Geothermal energy accounted for 47% of total electricity production in 2015/2016. These changes had immediate impact on the cost of electricity, reducing the Domestic electricity tariff by 21% from 25.5 Ksh./kWh to 20.2 Ksh./kWh in 2014 to the benefit ordinary

Kenyans. Since geothermal energy does not require any fuel, the fuel cost charge reduced by 68% from 7.2 Ksh./kWh to 2.3 Ksh./kWh in 2016.

Improving Performance to Facilitate International Trade

In 2016, JICA continued its activities for the third phase of the Project on Capacity Development for International Trade Facilitation in the Eastern African Region.

This technical cooperation project is implemented in collaboration with the Japan Customs and World Customs Organization (WCO). The project team is based at the Kenya Revenue Authority. Through this project, 70 customs officers and 2000 private cargo and freight forwarders from the East African region were trained in various aspects aimed at improving trade facilitation.

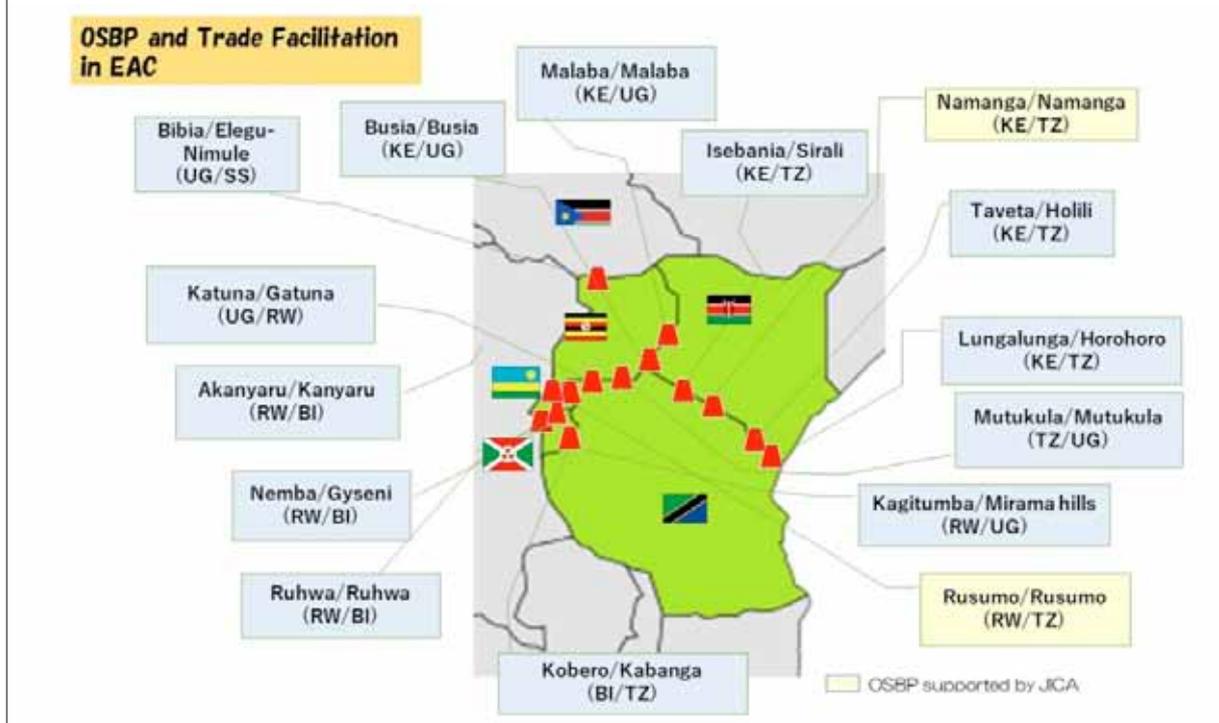
A major component of the project is the development and operationalisation of One Stop Border Posts, popularly referred to as OSBPs. An OSBP is a border facility that combines two border control processing stops into one. This consolidates border control functions within one location to facilitate swift exit and entry between two countries while ensuring adherence to the regulations of both countries. It reduces customs bottlenecks, ensuring a smooth flow of goods and services.

The project has been instrumental in initiating regional initiatives to improve transport infrastructure between countries, with the aim of facilitating international trade. Resultantly, in 2016, a risk-based approach for the facilitation of trade was introduced.



Rusumo OSBP supported by JICA (RW/TZ border)

OSBPs supported by JICA



Cargo Clearing and Forwarding Agents (CCFAs) underwent comprehensive training, and the EAC Model Customs Agents and Freight Forwarders Management Bill was developed.

KAIZEN: Improving Business Skills to Ensure Efficiency and Effectiveness

Initiated during TICAD V and reiterated in TICAD VI, the Project on Human Resource Development for Industrial Development is a Technical Cooperation project implemented by the Kenya Institute of Business Training (KIBT) at Kenya's Ministry of Industry, Trade and Cooperatives. Through this project, which aims to improve efficiency within and facilitate the growth of SMEs, individuals are trained on productivity and quality management (KAIZEN, 5S), Management Strategy, Marketing and Sales, Financial Management and General Business Skills. The training is conducted by Master Trainers and Trainers of KIBT who are taken through a rigorous training programme with the support of Japanese Experts. This includes training in Japan where the trainers are able to see firsthand best practices from international experiences.

One of the key expected results of this programme will be the development of a consultation program for SMEs together with an implementation framework at KIBT.

ACHIEVEMENTS

Infrastructure

- 1 Port of Mombasa.** JICA worked to boost the cargo-handling capacity in the port of Mombasa, signed a Loan Agreement to improve the transport evacuation system around the port, and continued to oversee the Mombasa Southern Bypass project.
- 2 Ngong Road dual carriageway.** In 2016, a project to upgrade Nairobi's Ngong Road into a dual carriageway was launched by President Uhuru Kenyatta. This project was funded by the Japanese government through JICA.
- 3 Access to power.** Thanks to JICA's efforts in Geothermal Development, 100 percent access to power is now a possibility for the people of Kenya.
- 4 Vision 2030.** Aligns with Kenya's Vision 2030, under the Infrastructure sector.

Human Resource Development for Industrialization

The ABE Initiative: Reinforcing the Link between Kenya and Japan

TICAD V saw the introduction of the Africa Business Education Initiative for the Youth (ABE), a strategic five-year plan which sought to provide opportunities for 1000 youths in Africa to study Masters courses at Japanese universities and intern at Japanese enterprises. In 2016, the third batch of ABE graduates returned to Kenya.

George, an employee of the Kenya Wildlife Service, studied at the Sophia University, known to the Japanese as the Jochi University, in Japan. He hopes to build capacity and create awareness on the importance of planting trees in the Nyanza region, from whence he hails. He is certain that a practice he observed in Japan, using rice husks to make briquettes for fuel, will make a positive environmental impact.

Jacqueline, who underwent an internship at the Financial Agency in Japan, conducted research on the insurance market in Kenya. She described her interactions during the internship as impressive and eye-opening.

“One of the major causes of air pollution in Kenya is vehicle exhaust fumes,” Kariuki says. After attending the Kobe Institute of Computing, where he participated in developing a low-cost solar-powered air pollution monitoring system, he gained a greater understanding of the need for a monitoring system that not only detects high pollution levels, but also reduces them.



ABE Students celebrating cultural diversity in Japan

JICA Training Ex-Participant Wins National Farmers Award

A beaming Charles Mureithi recently visited the JICA Kenya office to present the trophy he received after winning second place in the 2016 National Farmers' Award. The award category was “Small Scale Farm Geared towards Full Commercialisation.”



Mr. Mureithi presents his trophy to JICA Kenya office staff

In 2011, along with participants from 11 other countries, Mureithi attended a JICA-sponsored course in Japan titled Implementation and Promotion of Agribusiness for African Countries. It was during this visit that he observed the concept of “green tourism”, which he has implemented at his farm in Sipili, Laikipia West, to great success.

Visitors to his farm enjoy the experience of picking their own fruits and eating as many as they wish. They are spoiled for choice, with the over 20 varieties of fruits on the farm, including passion fruits, guavas, pineapples, lemons, oranges, figs, avocados, grapes, apples, mangoes, strawberries and pomegranate.

Mureithi has inspired many people within and outside his county to venture into agribusiness, and receives visits from both individuals and organised groups such as schools and farmers' organisations. He has inspired many farmers to venture primarily into fruit farming and value addition of farm produce.



A pupil learns scientific concepts through conducting a simple experiment

Demystifying Math, Science, Technology, and Innovation

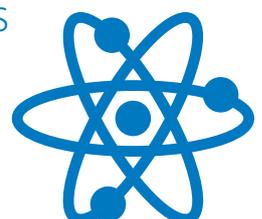
Mathematics and science subjects are widely believed to be the most difficult subjects one will ever learn in school. Interestingly, it is not so much that the subjects are difficult as that the methods used in teaching them have not been effective.

It was with this in mind that JICA implemented the Strengthening of Mathematics and Science in Secondary Education Project, or SMASSE, which ran from 1998-2013. The very successful project led to Strengthening of Mathematics and Science in all Public Primary Schools, or SMASE, which saw JICA continue to collaborate to improve the quality of education and highlight the reality that it is possible for both teachers and students to find mathematics and science easy to understand, and that these subjects are essential to their daily lives.

In addition to having trained over 55,000 Kenyan mathematics and science teachers (1998-2013), JICA continues to enhance the capacity of national trainers at the Centre for Mathematics, Science and Technology education (CEMASTEA) through training in Japan and locally. They are trained as Kenyan trainers and as trainers for mathematics and science who also train educators from all the Anglophone countries. The latter are

55,000 TEACHERS TRAINED

in strengthening of
Mathematics
and Science
Education



trained under JICA's Third Country Training Program (TCTP) annual courses at CEMASTEА.

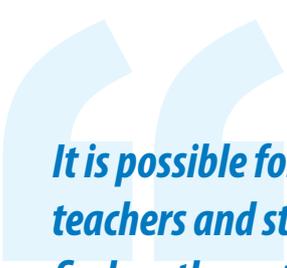
Following up on these efforts, a two-week Third Country Training Programme (TCTP) was held in Nairobi. It was funded by JICA and organised by the Centre for Mathematics, Science and Technology Education (CEMASTEА). More than 40 teachers from Ethiopia, Ghana, Nigeria, South Africa, and Zambia completed this training and received certification.

So far, 180 trainers from Anglophone countries have been trained (2014-2016). For the same purpose, JICA has since 2013 deployed to CEMASTEА a Japanese Expert and Senior Volunteer on Mathematics and Science.

In March, 2016, JICA, in collaboration with the Association for the Development of Education in Africa (ADEA) and Kenya's Ministry of Education, Science and Technology (MoEST), held a conference in Nairobi to discuss the role and place of Mathematics and Science Education (MSE) in the region.

Attended by representatives from JICA, 27 African countries, the World Bank, UNESCO, ADEA, and the University of Sussex, the conference explored the contributions of MSE to the transformation of Africa and successful MSE models continent-wide.

Narika Corporation, a company that develops and supplies science instructional materials/equipment in Japan, works to help students gain a better understanding of natural science theories. Using products that encourage visual and hands-on training, the corporation has received appreciation throughout Japan.



It is possible for both teachers and students to find mathematics and science easy to understand, and that these subjects are essential to their daily lives.

Higher Education:

The “AFRICA-ai-JAPAN” Project (African Union-african innovation-JKUAT AND PAUSTI Network Project)

was initiated in PAUSTI/JKUAT from June, 2014 and will last at least for 5 years. This project is a joint initiative involving Jomo Kenyatta University of Agriculture & Technology (JKUAT), Pan African University-Institute of Basic Sciences, Technology and Innovation (PAUSTI) which was established by African Union Commission (AUC), and (JICA). This project will strengthen the knowledge and skills in the fields of Agriculture, Engineering, Science and Biotechnology of both PAUSTI and JKUAT students and staff. This is unique since it promotes the full utilization of local/indigenous knowledge, resources, experiences and wisdom generated and accumulated in Africa to solve Africa's problems. The main purpose for the project is;

- 1) To promote local indigenous knowledge and wisdom in driving african inovations (ai),
- 2) To strengthen the knowledge and skills of PAUSTI/ JKUAT students to actualize their innovative ideas, and
- 3) To encourage innovation vitality in collaboration with industry across Africa.

The activities are under the following Centers:

Innovation Center for Product, Development and Commercialization (iPDeC): main objective is scaling up and commercialization of innovations through identification of new opportunities for partnership, business plan development and addressing intellectual property issues

Innovation and Prototyping Integrated Centre (iPIC): is centrally located at Engineering Workshops building. The Centre hosts modern state-of-the art facilities that provide machinery and advanced prototyping platform for innovation, invention and education

Innovation Centre for Bio-resources (iCB): The Center for Bio-resources aims at innovations that address crop production challenges

Innovation Centre for Molecular Biology and Biochemistry (iCMoB): The activities undertaken at the centre are aimed at understanding the molecular basis of biological activity in organisms (micro-organisms, human, animals and plants) to enhance the development of innovative solutions to meet human needs. The centre will be used by staff and students of JKUAT and PAUSTI.



Mid-term review of Africa-ai-Japan project

The “AFRICA-ai-JAPAN” concept is based on the 5S-KAIZEN philosophy of continuous improvement, MONOZUKURI principle which embodies the spirit, art, science and craft of making excellent products through continuous improvement of systems, and innovation approach such as System x Design Thinking. PAUSTI/ JKUAT students are expected to develop innovative products by infusing these principles in their research activities. It also encourages university collaboration with key stakeholders in the public and private sectors.

The project intends to strengthen the creativity towards innovation for PAUSTI and JKUAT students together with staff. The innovation process will be based on a R-3D approach: Research (R), Development (D), Demonstration (D), and Dissemination (D) model. The university will lead the innovation process from the research stage to the prototype stage. For commercialization, the universities will need to collaborate with suitable industry.

The Project for Capacity Development for Strengthening Rural Electrification Using Renewable Energy (“BRIGHT”)

JICA’s assistance to the project came to an end in January 2017. The follow-ups and completion of these projects will be taken over by JKUAT and “AFRICA-ai-JAPAN.”

The following innovations have been produced through Joint Research and Development between JKUAT and Ashikaga Technical College in Japan. These products will undergo necessary trials before

commercialization including; (1) Kenyan Designed Advanced Solar Home System utilizing lead-free battery, (2) Pilot Hydram for water pumping (no fuel or electricity required), (3) Turbine for Small Hydro Power Generator-(1-3kW) and (4) Turbine for Small Wind Power Generator-Windmill and small generator at 200W has been established in JKUAT.

Support for higher Education in Eritrea

The Government of the State of Eritrea requested the Government of Japan to provide assistance to improve the quality and capacity of three institutions of higher education, namely: Massawa College of Marine Science and Technology, Eritrea Institute of Technology and Hamelmalo Agricultural College. The Memorandum



Visit to Hamelmalo Agricultural College in Eritrea with professors from JKUAT

of Understanding (MoU) was signed by National Commission for Higher Education (NCHE) in Eritrea and the Jomo Kenyatta University of Agriculture and Technology (JKUAT) in Kenya on 26th October 2011.

The MoU established a framework for cooperation between NCHE and JKUAT in academic capacity building including teaching, research and programme development. The Project which was commenced in February 2013 covered many activities including reviewing and revision of post-graduate curricula, procurement of educational equipment and materials for experiments, academic staff exchange, PhD programme, and joint researches.

At the end of the project, the 5th Joint Coordination Committee Meeting was held on 28th November, 2016 in Asmara, Eritrea. As an outcome of meeting, it was agreed that the research projects started during the project should continue. At last, Prof. Romanus O. Odhiambo of JKUAT noted that the project has created brotherhood and sisterhood among the researchers.

Industrial Human Resource Development in collaboration with Toyota Kenya Academy

Established in 2014 as an institute offering courses in automobile mechanics, entrepreneurship, Japanese, and KAIZEN, Toyota Kenya Academy (TKA) serves both Toyota staff and the general public.

As a collaboration activity with TKA for the industrial human resource development in Kenya, JICA has dispatched two senior volunteers in the fields of Agriculture Machinery and Construction Machinery at TKA since January 2015. The senior volunteer for the Agriculture Machinery conducted tractor demonstration training sessions in seven counties and tractor operator training two times in 2016. The volunteer for construction machinery has been preparing training courses for different machineries, including mobile crane, fork lift and Moto grader. The training courses shall be implemented jointly with relevant technical



Students practice handling of farm machinery



A Senior Volunteer teaches about farm machinery

institutions such as Kenya Institute of Highways and Building Technology (KIHBT). The trainees in both fields are taken through intensive classroom training coupled with practical sessions to enable them apply what they have learnt in their day to day operations.

Japanese Private Sector contributes to learning of scientific concepts

NARIKA Corporation from Japan develops science teaching materials that help students to understand scientific concepts not just by hearing or seeing but by actually conducting the experiments themselves.

With the support of JICA, NARIKA, in collaboration with the Ministry of Education (MOE) and the Centre for Mathematics, Science and Technology Education in Africa (CEMASTEA) launched a verification survey to disseminate the science teaching materials. The survey aimed to enhance student-centred science education in Kenya through provision of teaching apparatus and guide book developed by the Corporation.

Through experiments conducted with hands-on science equipment, students/pupils can understand various principles/theories of natural science more deeply in combination with “visual image” and “feeling obtained by hands-on operation through their five physical senses”.

The Science Experiment Sets were developed and localized as supporting teaching and learning materials (teacher’s guide and students’ worksheet), to meet the needs and requirements in the educational environment in Kenya, including KCPE examination analysis.

For the practical operation of the concept in the classroom, introduction of Japan-made science materials and technical training for the teachers are expected to greatly contribute to the support of teachers, and to improve the learning performance of the students.

The “Genecon V3” has been acknowledged to meet the Kenyan curriculum for primary science, and this product supports a lot learning of the topics on “Electricity and Energy” in 7th Grade and “Transformation of Energy” in 8th Grade. The products also help the



Pupils easily understand the concept of Electricity using the Genecon V3 by Narika Corporation

students to form the basic understanding of the “visualization and practical experience of the theories” in physics, which is regarded as the most difficult subject in secondary education.

In order to promote child-centred science education, with a varieties of hands-on demonstrations, NARIKA Corporation has come up with the idea of developing “NARIKA Science Wagon” which will bring the following three advantages into the Kenyan primary schools.

1. Mobility for hands-on experiment anywhere in school
2. Useful features such as a whiteboard and magnets
3. All-in-one kit on a wagon available for various experimental topics

(Set-1) Effects of Heat on Matter

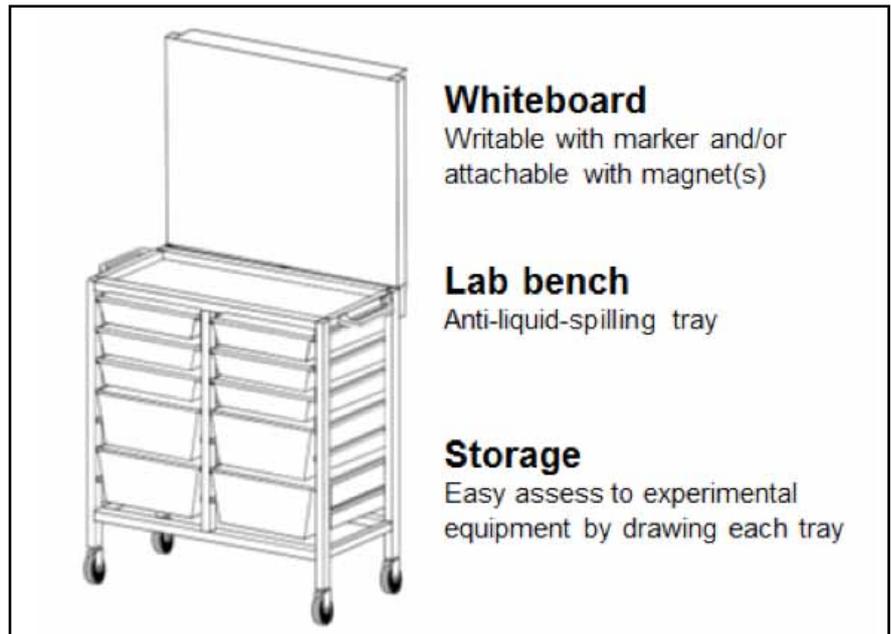
(Set-2) Simple Electric Circuit

(Set-3) Energy Conversion

(Set-4) Renewable Energy and Energy Saving

(Set-5) Making Works Easier

These are science experimental sets along with “Experiment Book” created to comply with Kenyan science curriculum set by Kenya Institute of Curriculum Development (KICD). These will be designed with intention to cover the course units of above-mentioned five areas that are most commonly desired by Kenyan teachers/students and frequently appear on the KCPE each year.



Whiteboard

Writable with marker and/or attachable with magnet(s)

Lab bench

Anti-liquid-spilling tray

Storage

Easy access to experimental equipment by drawing each tray

Narika Science Wagon

ACHIEVEMENTS

Human Resource Development

1 KIBT. Trainers from the Kenya Institute of Business Training (KIBT) were given productivity and quality management training in Kenya and Japan.

2 ABE graduates. The third batch of ABE graduates returned from Japan to Kenya, with a wealth of information on innovative changes that can be made in different sectors and communities.

3 SMASE. The Post-SMASE project, which is an offshoot of the Strengthening of Mathematics and Science Education Project (SMASE), saw JICA collaborate to improve the quality of education and highlight the reality that both teachers and students can find mathematics and science easy to understand.

4 Toyota Kenya Academy. JICA dispatched volunteers who worked at the Toyota Kenya Academy, conducting machinery training sessions in seven counties.

5 National Farmers’ Award. A graduate of a JICA-sponsored course won a National Farmers’ Award.

6 Vision 2030. JICA partnered with Kenya in fulfilling the Education sector of Vision 2030.



Narika’s Mr. Naganuma presents a Science Wagon to the CS. Dr. Matiang’i and CEMASTE A Director Mr. Stephen Njoroge

Impacting Smallholder Farmers to Increase Income

The Smallholder Horticulture Empowerment and Promotion (SHEP) approach is a combination of promoting Farming Business as well as taking into account the psychological needs of a person. These will empower and motivate farmers to change their mindset from 'Grow and Sell' to 'Grow to Sell' and sustainably increase productivity and incomes.

The approach is a product of a technical cooperation project between Kenya and Japan. It is now being implemented continent-wide across African Countries with support of JICA.

One female farmer, whose experience at the SHEP Farm Business Linkage Stakeholder Forum (FABLIST) enabled her understand the importance of knowing the market, said, "I met someone from a community-based agribusiness organization. He said: 'You can be a millionaire... what you lack is time planning.' At the time, we were not sure about our future outputs, but I decided to take a step forward. I had never questioned the conventional way of farming. But after SHEP experience, our neighbors have since approached us for advice and sought to join us."

SHEP facilitates gender mainstreaming by offering Gender Awareness Training, which explains the concepts of "Household as a Farm Management Unit" and "Couple as Partners for Better Management". Due to the adoption of gender mainstreaming, households saw a 14 per cent increase in income, in addition to the 40 per cent increase already attributed to just SHEP.

"Before SHEP, I was a terrible husband," one male farmer shared. "I used to be brutal... and denied my wife a chance to contribute to decision-making. But things started to improve when I received the SHEP Gender Awareness Training. My wife now manages money in the house. We share responsibilities on the farm. We are now very happy and have a lot of love. My wife has gained confidence and she now educates other women in the community about proper household relationships."

14% INCREASE IN INCOME



for households, due to
the adoption of gender
mainstreaming



Farmers conduct market survey under SHEP approach

...after SHEP, our neighbours [who] saw us and said 'You are mad!' have stopped laughing at us and want to join us instead." ~Female farmer

Using a Water-Saving Culture to Enhance Rice Productivity

Situated in Kirinyaga County, central Kenya, the Mwea Irrigation Scheme is well known for its production of different types of rice, particularly the aromatic basmati and pishori varieties. For many years, it has been a point of collaboration between Japan and Kenya, due to the fact that both countries are familiar with rice paddy farming, and Japan has extensive experience in the successful cultivation of the crop.

Well over 70 percent of Kenya's population depends on agriculture for its livelihood. Aware of the impact that this sector has on the economy, JICA has worked for years to implement strategies that maximise the benefits of agriculture in Kenya.

One such strategy is the Water-Saving Rice Culture (WSRC). Designed for rice farmers in the Mwea Irrigation Scheme, this initiative, which consists of five components, seeks to enhance rice productivity and profitability while saving irrigation water. The WSRC was promoted by the Rice-Based Market-Oriented Agriculture Promotion Project, or RiceMAPP, with JICA's support. RiceMAPP drew its strength from Japan's rice cultivation technology and experience as well as Kenya's increasing demand for rice.

The project identified and tested eight potential farming systems. The eight rice-based and market oriented farming systems are now practiced in Mwea Irrigation scheme. During the implementation of the RiceMAPP project, at least five technical guidelines for rice and sequential crops (i.e crops, other than rice,

which are produced after the main rice crop or ratoon crop in the same paddy field) were produced.

The guidelines on Irrigation Water Management in the scheme were developed to promote the main technology tested by RiceMAPP, i.e the Water-Saving Rice Culture. Other guidelines developed include the Guideline to Sequential Crops Production in Mwea. The sequential crops provide options for additional income for farmers in the scheme. For two years, RiceMAPP has been conducting verification trials on sequential cropping in demonstration farms.

By the time of project completion in January 2017, the extension activities by core farmers and water users' association leaders had led to increased technology adoption rates, with profits for practicing farmers increasing by up to 136 per cent between 2011 and 2015.

59-year-old veteran rice farmer Daniel Kibuchi, who has watched Kenya's largest rice irrigation scheme increasingly embrace technology through the years, states that his farm has become more productive and more profitable as a result of JICA's efforts in Mwea. RiceMAPP has seen him increase the amount of rice harvested from his two-acre farm. "Right now I specialise in growing rice for seeds which I sell to Mwea Rice Growers Multipurpose Co-operative. Growing seeds fetches more compared to producing for household consumption," he says.



Farmers harvest rice at Mwea Irrigation Scheme

ACHIEVEMENTS

Agriculture

- 1 Profit rate for farmers.** The Water-Saving Rice Culture, which seeks to enhance rice productivity and profitability, contributed to a 136 percent profit rate for farmers between 2011 and 2016.
- 2 SHEP.** The Smallholder Horticulture Empowerment and Promotion (SHEP) approach resulted in both gender mainstreaming and increased profits for families.
- 3 Vision 2030.** Through these projects, JICA contributed to the Economic Pillar of Vision 2030, under Agriculture.

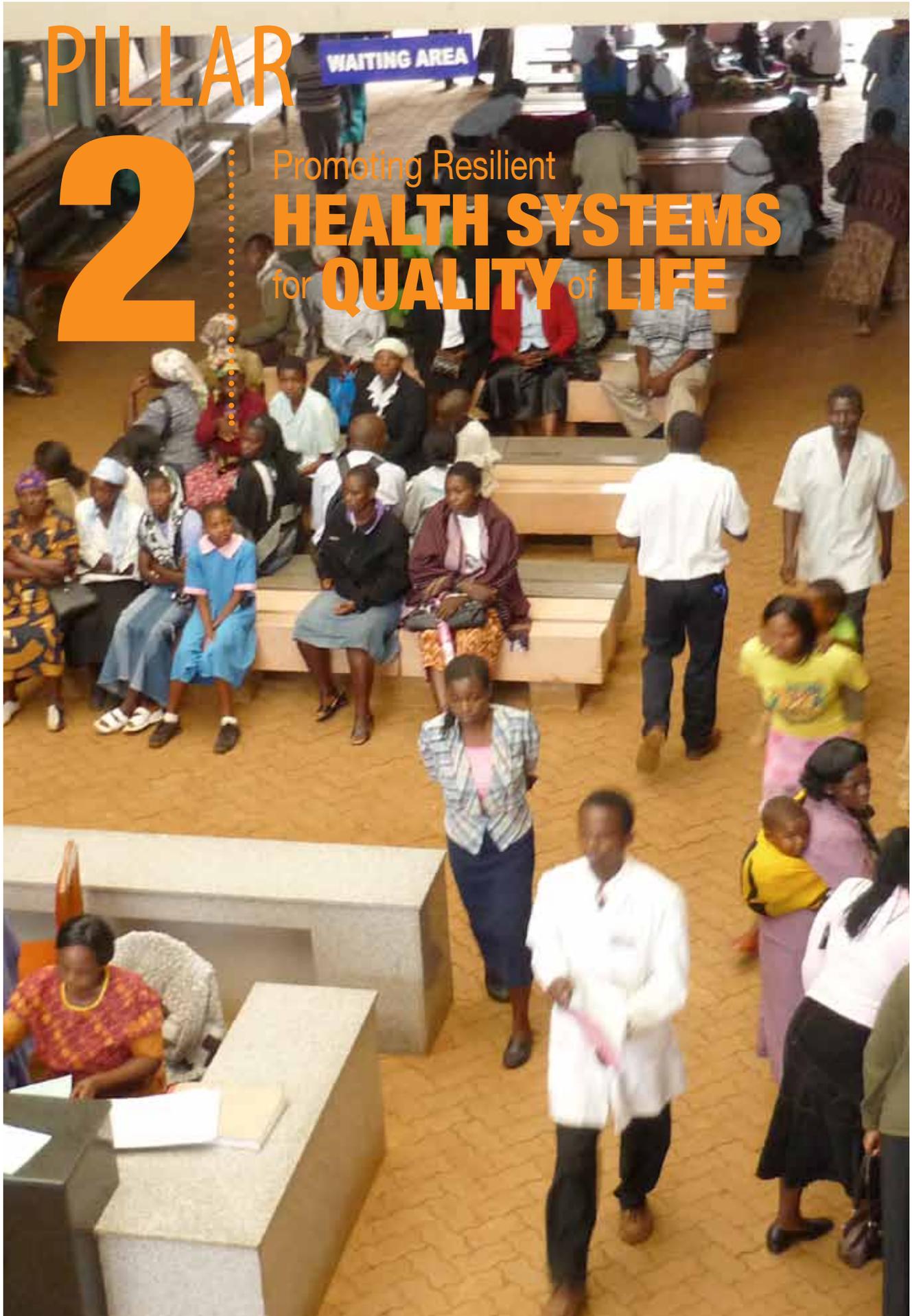
PILLAR

2

Promoting Resilient

HEALTH SYSTEMS

for **QUALITY** of **LIFE**



Out-patient department at Kisii Level 5 Hospital

PROMOTING RESILIENT HEALTH SYSTEMS FOR QUALITY OF LIFE

TICAD VI Nairobi Implementation Plan

“We reaffirm the fundamental importance of resilient, inclusive and sustainable health systems for quality of life and for better preparedness to cope with public health emergencies. To this end, we encourage governments, international organizations, private sector and CSOs to take specific measures in their respective capacities, in full respect of Africa Health Strategy 2016-2030 and in line with the G7 Ise-Shima Vision for Global Health...”

TICAD VI Facilitates SDG Efforts

In line with SDG 3, Good Health and Wellbeing, JICA is committed to partnering with the Kenya government to improve the quality of life in Kenya. Continued efforts to progress towards universal health coverage by increasing access, improving services and minimizing cost are among the main activities JICA has undertaken in this regard.

Kenya's health sector was a major beneficiary of the TICAD VI. The Japanese Prime Minister, Shinzo Abe, said that Kenya would be used as a model country in Africa as part of Japan's move to foster universal healthcare.

An 8-million-shilling medical laboratory was donated to the First Lady's Beyond Zero initiative, which seeks to improve maternal and child health in Kenya. This laboratory, which has a higher diagnostic capacity than a basic lab, was donated through a joint partnership between Japanese firms Toyota Tsusho, Sysmex, Terumo, and Eiken Chemicals.

Disbursement of the 1st tranche of 2 billion Yen loan for UHC was made in March 2016 (before TICAD VI) 2nd tranche of 2 billion yen is due in March 17.

Study Tour to Japan on Universal Health Coverage (UHC)

Policy drivers make good leaders and advocates for universal healthcare. In 2016 Chair and Clerk of Senate Health Committee, along with officials from the National Health Insurance Fund and county representatives, went on a one-week-long study tour to Japan understand the Japanese experience of universal healthcare. This tour was hosted by JICA.

Capacity Development and Mutual Planning

One major challenge that Kenya's health sector faces is the chronic shortage of resources. To combat this, JICA has conducted capacity building to help health practitioners make maximum use of available resources.

With devolution firmly in place in Kenya, different county governments now provide health services to their County residents. In 2016, JICA supported capacity development, particularly for county health systems, meeting outlining capacity development priorities and meeting the consequent needs at the county level. Significant progress was made in the health system management training.

Kenya currently has 47 counties, and each county has its own structures, priorities, and health management strategies. JICA has played a key role in the identification and collection of best practices that can be shared across counties for replication and expansion of healthcare systems. In 2016, the first round of best practice selection took place, and three counties were given awards to this effect.

JICA has conducted capacity building to help health practitioners make maximum use of available resources.

Harnessing Technology for Efficient Disease Surveillance

Emerging communicable diseases, such as Ebola, yellow fever, and Rift Valley fever pose a serious public health threat and can have consequences reaching beyond a country's borders. Unfortunately, Kenya suffers from a chronic shortage of resources, which means that it is extremely difficult to relay crucial information on disease outbreaks nationwide. Delays in the receipt of information by the necessary government bodies cause delays in containing and stopping the spread of disease.

To alleviate this issue, JICA, in collaboration with the Japan Agency for Medical Research and Development, Science and Technology Research Partnership for Sustainable Development (AMED-SATREPS), the Kenya Medical Research Institute (KEMRI) and Kenya's Ministry of Health (MOH), developed a system known as the Mobile SMS-Based Disease Outbreak Alert System, mSOS.

Through mSOS, health facility workers and disease surveillance coordinators can communicate in real time using text messages





Delegates to JICA Consultative Meeting on Lab Capacity Development against Pandemic Threats in Africa

Through mSOS, health facility workers and disease surveillance coordinators can communicate in real time using text messages. As soon as a health worker sends an alert regarding a suspected disease outbreak, health authorities at sub-national and national levels are able to receive information on the location from which the message was sent, the suspected disease, and the patient's identity. A web portal then displays information on a map, outlining repeated incidents, hotspots, and health facilities.

mSOS was first tested in Kajiado and Busia, and after the success of these tests, it was decided that a national roll-out was in order. In 2016, JICA focused on this national roll-out of mSOS, as well as integration of the facility into the National Health Information System (DHIS). The World Health Organization (WHO) and the United States Centres for Disease Control and Prevention (CDC) came in to help train disease surveillance coordinators and health records and information officers countrywide on mSOS and its integration in the DHIS. Test kits were developed at KEMRI, and research on mass production and commercialisation is now underway to enable use of kits.

mSOS
DISEASE
SURVEILLANCE
in real time
using text messages



.....

2 billion
YEN LOAN
2016 for support
towards achieving
Universal Health
Coverage





A Japanese Volunteer with JICA staff and the Quality Improvement Team from Machakos Level 5 Hospital

Continuous Quality Improvement (KAIZEN) in Health Care in County Hospitals

Ministry of Health selected facilities and with support from JICA, progress is underway to create centres of excellence in quality improvement. Safe delivery, neonatal care, pharmacy, laboratory, surgical services, and accident and emergency services were prioritised by the Ministry of Health as areas that currently face quality challenges.

In FY 2016, two hospitals (Coast General and Kericho County) were supported by JICA for this purpose: Kenyatta National Hospital (surgery and neonatal), Coast General Hospital (maternity, accident and emergency), and Kericho County Hospital (accident and emergency, pharmacy).



JICA leadership in global health action (Mr. Ikuo Takizawa)



Improvement of Quality of Service through Mentorship



Messaging for Health Promotion (Hand washing)



Adverse effects of industrial actions in 2016 (deserted hospitals)

ACHIEVEMENTS

Health

1 mSOS. JICA, in collaboration with the Japan Agency for Medical Research and Development, Science and Technology Research Partnership for Sustainable Development (AMED-SATREPS) developed a project known as the Mobile SMS-based Disease Outbreak Alert System, mSOS, to enhance disease surveillance in Kenya. mSOS was integrated into DHIS and Disease Surveillance Coordinators and health facility workers trained on its operation.

2 UHC. The disbursement of the 2 billion Yen first tranche of the first ever Yen loan for support towards achieving Universal Health Coverage.

3 Study Tour. Chair and Clerk of Kenya's Senate Health Committee, along with officials from the National Health Insurance Fund and county representatives, went on a one-week-long tour to Japan to understand the Japanese experience of universal healthcare.

4 VISION 2030. By facilitating better health services, JICA's work in Kenya's health sector contributes to the government's commitment to achieve universal health coverage by 2030.

PILLAR

3

PROMOTING
SOCIAL STABILITY
for SHARED **PROSPERITY**



Narok Water Treatment Facility



PROMOTING SOCIAL STABILITY FOR SHARED PROSPERITY

TICAD VI Nairobi Implementation Plan

“We confirm that shared prosperity and progress cannot be achieved and maintained without social stability. We therefore encourage individual and collective measures to support...”



WATER SUPPLY
INCREASED TO
5,000m³

after rehabilitation of the
existing water treatment
plant in Narok

The importance of clean, fresh water to the growth of any economy, and thus the survival of any nation, cannot be overstated. We rely on water to prevent disease, increase food security, promote gender equality, and provide sustainable energy. Poor water quality and poor sanitation practices, therefore, have direct, unfavourable impacts on both human lives and national economies.

In 2016, JICA continued its efforts to provide access to clean water, train communities on waste management, and combat desertification to strengthen resilience to climate change.

NAROK: Providing Access to Clean Water

Inadequate water supply and outdated water treatment facilities were once the bane of the people of Narok, but thanks to projects and capacity building activities initiated and overseen by JICA, these issues can now be relegated to the county's history.

For over a decade, JICA has consistently supported the improvement of urban water supply by constructing and improving water treatment facilities, rehabilitating intakes, and training community members to ensure that projects are sustainable.

In 2014, JICA embarked on the construction of a water supply system designed to increase Narok's water supply from 200m³ per day to 5,000m³ per day, growing the service population from 18,000 to 50,000. This project, which aimed to rehabilitate the existing water treatment plant, was funded by grant aid from the Japanese government through JICA. A groundbreaking ceremony was held on 1st August, 2015.

On 18th April, 2016, JICA officially handed over the project to the Narok County government. Speaking during the official groundbreaking ceremony, the Narok Water and Sewerage Company Managing Director said the project, which meets World Health Organisation



(WHO) standards, will provide 60,000 more residents of Narok County with access to clean drinking water.

In order for the water supply project to remain sustainable, the people have to be trained on how to conserve water, maintain facilities, and decrease diseases that would be caused by poor sanitation and/or poor facility maintenance. JICA has continued to facilitate capacity development to ensure that the water supply system is a long-term solution to the people of Narok.

The project, which meets World Health Organisation (WHO) standards, will provide 60,000 more residents of Narok County with access to clean drinking water.

~Narok Water and Sewerage Company
Managing Director

Enhancing Capacity of Water Supply in Eritrea

In Asmara, the capital of the State of Eritrea, with population of 700 thousand, drinking water is distributed from three water treatment plants. The water distribution, however, is insufficient in volume and quality due to aged and damaged facilities. Furthermore, some of the urgent challenges are:

1. Improvement of proper maintenance of the water supply facilities,
2. Proper recording of operation data, which are necessary to grasp the present conditions and issues, among the others.

In order to tackle these challenges, JICA dispatched experts to improve the skill of recording, information management and water quality management at dam facilities, water treatment plants, transmission, distribution, and service facilities. At the end of the project, Asmara Water Supply and Sewage Department enhanced its capacity to collect and manage necessary information for understanding Operation and Maintenance (O&M) situation of targeted water supply facilities. JICA will continue to support the improvement of water supply condition in Asmara.



Expert providing advice at the Stretta Vaudetto Water Treatment Plant in Asmara, Eritrea

Solutions for Nairobi's Solid Waste

Nairobi generates more than 2,000 metric tonnes of waste every day. In line with the UN's Sustainable Development Goals, JICA continued its efforts in 2016 to build capacity for solid waste collection and transportation.

In March, 2016, JICA held the final seminar for the Solid Waste Management Project. Attended by more than 1,000 participants including Nairobi County representatives, waste collection companies, NGOs and UN agencies, the seminar highlighted JICA's role in combating the waste management menace in Nairobi.

During the seminar, it was reiterated that solid waste management cannot be achieved without an integrated approach that includes the cooperation and participation of all stakeholders.

This was further underscored during a joint seminar on waste management in Africa that was held as part of the TICAD VI activities.

2,000
METRIC TONNES
is the waste generated
by Nairobi
every day



ABE Initiative Participant Harrison Odhiambo explains his research at the Dandora dumpsite to JICA and Nairobi County staff

Strengthening Resilience to Climate Change

Worldwide changes in climatic patterns have seen droughts in Africa's drylands increase in both frequency and severity. Kenya, like other nations, has had its resources strained as the government and communities work to resolve the issue of desertification and drought.

In 2016, JICA developed the African Initiative for Combating Desertification to Strengthen Resilience to Climate Change in the Horn of Africa and the Sahel. This initiative, which was proposed and launched during TICAD VI, seeks to increase the resilience of nations and communities to climate change by promoting measures for combating desertification.

Kenya's Cabinet Secretary for the Ministry of Environment and Natural Resources, Prof. Judi Wakhungu, attended the initiative's introductory meeting, which was held at the Kenya Forestry Research Institute (KEFRI) in Nairobi.

JOCV: Partnering with local communities for over 50 years

From the sunny day in March, 1966, when the first Japan Overseas Cooperative Volunteers (JOCVs) arrived in Kenya, more than 1600 JOCVs and Senior Volunteers (SVs) have made the commitment to spend two years entrenching themselves in, learning about, and impacting different communities in Kenya.

The JOCV programme was instituted to foster a friendship between Kenya and Japan by supporting socioeconomic development in Kenya and reaping the fruits of volunteerism.

In 2016, a celebration was held in Kenya to mark 50 years of JOCV. An initial event took place in Japan in 2015 to showcase and celebrate what volunteers are doing around the world. The Kenya event was held to raise increased awareness of JOCV activities within the country.

JICA developed the African Initiative for Combating Desertification to Strengthen Resilience to Climate Change in the Horn of Africa and the Sahel

ACHIEVEMENTS

Water and Sanitation/ Environment

- 1 Water supply.** Through JICA's efforts, the people of Narok can now enjoy an increase in their water supply.
- 2 Solid Waste Management.** In March, 2016, JICA held the final seminar for the Solid Waste Management Project, which emphasised that solid waste management cannot be achieved without an integrated approach that includes the cooperation and participation of all stakeholders.
- 3 Climate Change.** JICA developed the African Initiative for Combating Desertification to Strengthen Resilience to Climate Change in the Horn of Africa and the Sahel. This initiative seeks to increase the resilience of nations and communities to climate change by promoting measures for combating desertification.
- 4 Vision 2030.** The activities carried out under JICA's Water and Sanitation/ Environment Sector have strengthened Kenya's Social Pillar of Vision 2030, which seeks to improve the country's environment, health, and sanitation.

JICA PROJECTS

Economic Infrastructure

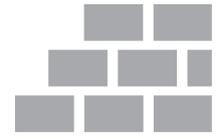


200

PUBLIC AND PRIVATE SECTOR

participants attended the results dissemination seminar for HRDID Project

USD 34 million



Rusumo One Stop Border Post (OSBP) and international bridge completed (**Rwanda/Tanzania border**)



140 MW

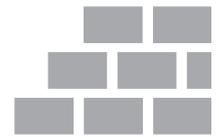
GEOTHERMAL POWER

Project in **Naivasha**

480 TEU

PHASE 1

Second Container Terminal commissioned in **Mombasa**



Agriculture



14%

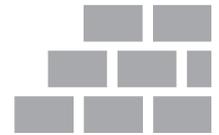
INCOME INCREASE

For households, due to the adoption of gender mainstreaming.

136%

PROFIT INCREASE

For finance between 2011 - 2016 after adoption of new technologies in Mwea.



Human Resource Development



292

TRAINING PARTICIPANTS

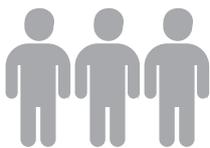
Sent to Japan from Kenya in 2016

134

KENYAN ABE INITIATIVE STUDENTS

accepted from 3 batches

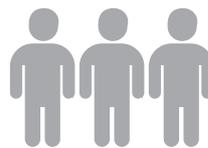
(2014-2016)



4

KENYAN ABE INITIATIVE GRADUATES

Admitted to PhD programs in Japan



55,000

PRIMARY SCHOOL

Maths and Science teachers trained under SMASE

July 2013 to March 2016

For a full list of JICA projects, please visit www.jica.go.jp/kenya/index.html

JICA PROJECTS

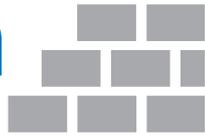
Health

110 million

KENYA SHILLINGS

Diagnostic equipment and training for TB control county and sub-county TB coordinators are trained nationwide.

(2014-2016)



3,000

PEOPLE CASCADE TRAINING

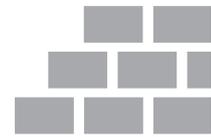
Regional program for HSS (MOH/AMREF/JICA) – more than 300 people from 37 countries trained on TOT.

(2014-2016)

50 million

KENYA SHILLINGS

Printing of materials and training of health personnel on disease outbreak alert and response (Ebola budget) – 1. All the counties and sub-counties Disease surveillance officers, plus 430 health workers in Level 4-6 facilities trained on mSOS



Water and Environment



5,000m³

WATER SUPPLY INCREASED

Construction of intake, water treatment plant and distribution network in **Narok**

July 2013 to May 2016

41,700

SERVED FROM 70 BOREHOLES

Construction of water supply facilities for rural population in

Baringo

July 2013 to March 2016



861 Kgs seeds / 3500 seedlings

DROUGHT TOLERANT TREES (MELIA VOLKENSII) PLANTED

and KEFRI's capacity STRENGTHENED in **Kitui**

MARCH 2013 to DECEMBER 2017



List of JICA Kenya's Projects in the Five Key Sectors

Project Name	Scheme	Period	
		From	To
Economic Infrastructure Development			
Ngong Road (Phase I)	Grant Aid	2012	2017
F/S for Nairobi Viaduct	Preparatory Survey (Loan Assistance)	2015	2017
M/P for Nairobi Urban Public Transportation System	Development Study	2016	2017
Urban Dev. M/P advisor	Individual Expert	2016	2017
M/P for Northern Corridor Logistics Development	Development Study	2014	2016
M/P for Mombasa Gate City Development	Development Study	2014	2016
Road Maintenance (phase 3)	Technical Cooperation	2016	2018
Mombasa Port (1)	ODA Loan	2010	2016
Mombasa Port (2)	ODA Loan	2014	2019
Mombasa Southern Bypass (1)	ODA Loan	2012	2021
F/S for Mombasa Port Gate Bridge	Preparatory Survey (Loan Assistance)	2015	2017
Sondu Miriu Sang'ort Hydro	ODA Loan	2008	2016
Olkaria I (Unit 4/5) and additional Unit 6	ODA Loan	2012	2020
Olkaria V	ODA Loan	2015	2019
Olkaria I rehabilitation	ODA Loan	2016	2018
GDC Capacity Enhancement project	Technical Cooperation	2013	2017
Geothermal Development Policy update (for GDC)	Development Study	2014	2016
PPP advisor	Individual Expert	2016	2017
Olkaria-Lessos-Kismu T/L	ODA Loan	2010	2018
BRIGHT human Resource Development project	Technical Cooperation	2010	2016
Electricity Network Engineering (training)	Group and Region-Focused Training	2013	2020
Geothermal Engineer (training)	Group and Region-Focused Training	2013	2020
Human Resurse Development Project forIndustrial Development	Technical Cooperation	2015	2018
Human Resurse Development Project forIndustrial Development (2)	Technical Cooperation	2018	2021
ABE Initiative Third Batch	Training in Japan	2016	2019
Mombasa SEZ M/P project	Development Study	2013	2015
Preperatory Study for Mombasa SEZ	Preparatory Survey (Loan Assistance)	2016	2017
Project on Capacity Development for International Trade Facilitation in the Eastern African Region	Technical Cooperation	2013	2017
Training Courses related to industrial policies	Group and Region-Focused Training	2013	2020
Training Programme at Toyota Kenya Academy	SV	2015	2018

List of JICA Kenya's Projects in the Five Key Sectors

Project Name	Scheme	Period	
		From	To
	JOCV	2010	2020
Agriculture Development			
Sustainable Smallholder Irrigation Development and Management in Semi-Arid Lands Project (SIDEMAN-SAL)	Development Study	2012	2016
Smallholder Horticulture Empowerment and Promotion Project for Local and Up-scaling (SHEP PLUS)	Technical Cooperation	2014	2019
Project on Enhancing Gender Responsive Extension Services in Kenya (PEGRES)	Technical Cooperation	2014	2017
Mwea Irrigation Development Project	ODA Loan	2010	2020
Rice-based and Market-oriented Agriculture Promotion Project (RiceMAPP)	Technical Cooperation	2011	2016
The project on rice research for tailor-made breeding and cultivation technology development in Kenya		2013	2018
The Project for development of sericulture research by applying biological resources and molecular genetics		2016	2020
Training Programs	Group and Region-Focused Training	2013	2020
	JOCV	2010	2020
Human Resource Development			
INSET Policy / Continuous Professional Development (CPD) Advisor	Individual Expert	2014	2016
Third Country Training	Third Country Training	2014	2015
Third Country Training	Third Country Training	2016	2017
Regional Cooperation Advisor	Individual Expert	2014	2016
Regional Cooperation Advisor (Extension)	Individual Expert	2016	2017
Partnership w/ Private Sector on Teaching Material	Support for SMEs	2015	2018
	JOCV	2013	2020
AFRICA - ai - JAPAN Project: African Union - african innovation - JKUAT AND PAUSTI Network Project	Technical Cooperation	2014	2019
ABE Initiative	Country-Focused Training	2014	2019
	Individual Expert	2014	2016
	Individual Expert	2017	2018
	Group and Region-Focused Training	2013	2020
Health			
Technical Advisor for Tuberculosis Control	Individual Expert	2014	2016
Technical Advisor for Tuberculosis Control	Individual Expert	2016	2017
The Project for Development of Rapid Diagnostics and the Establishment of an Alert System for Outbreaks of Yellow Fever and Rift Valley Fever		2011	2016
Reinforcement of Vaccine Storage (Grant Aid)	Grant Aid	2011	2013

List of JICA Kenya's Projects in the Five Key Sectors

Project Name	Scheme	Period	
		From	To
STOP TB HIV Training Program	Group and Region-Focused Training	2010	2020
	JOCV	2010	2020
Project for Organizational Capacity Development for Devolved County Health Systems in Kenya (OCCADEP)	Technical Cooperation	2014	2018
Health Finance Policy Advisor	Individual Expert	2013	2016
UHC Study Tour(country Specific Training)	Country-Focused Training	2015	2017
Health Sector Policy Loan for Attainment of the UHC	ODA Loan	2015	2016
Partnership for Health Systems Strengthening in Africa	Technical Cooperation	2011	2015
Partnership for Health Systems Strengthening in Africa 2	Technical Cooperation	2016	2020
Project for supporting health from school to community Mbita		2012	2017
Partnership w/ NGO Basic Education in Machakos		2013	2017
Training Program	Group and Region-Focused Training	2013	2020
Partnership w/ NGO on Medical Examination		2016	2018
		2016	2017
Non Communicable Disease Project	Technical Cooperation	2016	2019
	JOCV	2010	2020
Environmental Conservation			
Water Resources Management Expert (Monitoring, Information Management)	Individual Expert	2016	2018
The Project strengthening capacity in Non-Revenue water reduction	Technical Cooperation	2016	2020
The project augmentation of water supply system in narok	Grant Aid	2013	2017
Rural Water Supply in Baringo	Grant Aid	2013	2017
Training Program	Group and Region-Focused Training	2010	2020
	JOCV	2010	2020
Project on Development of Drought Tolerant Trees for Adaptation to Climate Change in Drylands of Kenya	Technical Cooperation	2012	2017
The Project for Enhancing Community Resilience against Drought in Northern Kenya (ECORAD)	Development Study	2012	2015
Project on Enhancing Community Resilience against Drought through Sustainable Natural Resources Management and Livelihood Diversification (ECORAD 2)	Technical Cooperation	2016	2021
Study on Basic Infrastructure in Northern Kenya	Preparatory Survey (Technical Cooperation)	2016	2016
Capacity Development Project for Sustainable Forest Management in the Republic of Kenya (CADEP)	Technical Cooperation	2016	2021
REDD+ Piloting Project under local government	Technical Cooperation		
Project on Private Sector involvement in forest extension			

List of JICA Kenya's Projects in the Five Key Sectors

Project Name	Scheme	Period	
		From	To
Advisor on combating desertification	Individual Expert		
Training Program	Group and Region-Focused Training	2010	2020
JOCV	JOCV	2013	2020
The Project for Capacity Development of Solid Waste Management of Nairobi City	Technical Cooperation	2012	2015
The Project for Capacity Development of Solid Waste Management of Nairobi City 2	Technical Cooperation	2016	2020
	Support for SMEs	2015	2017
Training Program	Group and Region-Focused Training	2010	2020
	JOCV	2013	2020
Others			
ALOS Third Country Training on Mapping	Third Country Training	2011	2015
Third Country Training on Social Forestry	Third Country Training	2014	2017
SMASE-WECSA Third Country Training on Science and Math Education	Third Country Training	2014	2016
	JOCV	2013	2020
	Group and Region-Focused Training	2011	2020

Location of projects in Kenya

Maps of JICA Major Projects

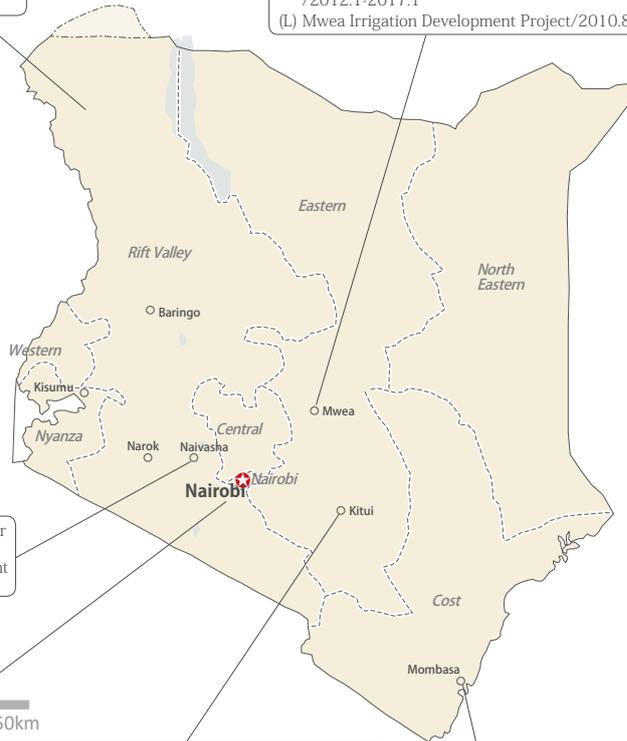
as of October 1, 2016

Kenya

(P) Technical Cooperation (D) Development Study/Technical Cooperation for Development Planning (L) Loan (G) Grant Aid

<Rift Valley, Nyanza>
 (L) Olkaria-Lessos-Kisumu Transmission Lines Construction Project/2010.12

(P) The project on rice research for tailor-made breeding and cultivation technology development in Kenya/2013.5-2018.5
 (P*) Rice-based and Market-oriented Agriculture Promotion Project /2012.1-2017.1
 (L) Mwea Irrigation Development Project/2010.8



(L) Olkaria I Unit 4 and 5 Geothermal Power Project/2010.3
 (L) Olkaria V Geothermal Power Development Project/2016.3

(P) Project on Development of Drought Tolerant Trees for Adaptation to Climate Change in Drylands of Kenya/2012.7-2017.7 [Kitui County]

<Nairobi and its environs>
 (P) Project for Capacity Development for Promoting Rural Electrification Using Renewable Energies/2011.8-2017.1 [Juja]
 (P) The Project for Capacity Strengthening for Geothermal Development in Kenya/2013.9-2017.9[Menengai]
 (P) AFRICA - ai - JAPAN Project: African Union - African innovation - JKUAT AND PAUSTI Network Project/2014.6-2019.6 [Juja]
 (P) Project on Human Resource Development for Industrial Development /2015.8-2018.7
 (G) The Project for Dualling of Nairobi-Dagoretti Corner Road C60/C61/2012.6

(D) Project for Formulation of Comprehensive Development Master Plan in the Mombasa Gate City/2015.3-2017.2
 (L) The Mombasa Port Area Road Development Project/2012.6
 (L) Mombasa Port Development Project (Phase2)/2015.3

<All area/Wide Area>
 (P) The Project for Development of Rapid Diagnostics and the Establishment of an Alert System for Outbreaks of Yellow Fever and Rift Valley Fever /2012.1-2017.1 [Central, Coast, Nairobi, North Eastern, Western]
 (P) Project on Capacity Development for International Trade Facilitation in the Eastern African Region/2013.12-2017.12 [Tanzania, Uganda, Rwanda, Brundi]
 (P) Project on Enhancing Gender Responsive Extension Services in Kenya/2014.8-2017.8
 (P) Project for Organizational Capacity Development for Devolved Health Systems in Kenya/2014.10-2019.10
 (P) Smallholder Horticulture Empowerment and Promotion Project for Local and Up-scaling (SHEP PLUS)/2015.3-2020.3
 (P) Capacity Development Project for Sustainable Forest Management in the Republic of Kenya/2016.7-2021.7
 (P) The Project strengthening capacity in Non-Revenue water reduction/2016.7-2021.7
 (P) Partnership for Health Systems Strengthening in Africa (PHSSA) Phase II/2016.8-2021.3
 (P) The Project for development of sericulture research by applying biological resources and molecular genetics/2016.7-2021.7
 (D) Project for Formulation of Master Plan on Logistics in Northern Economic Corridor/2015.3-2017.3[Kenya, Uganda]
 (L) Health Sector Policy Loan for Attainment of the UHC/2015.8

Technical Cooperation : Ongoing and planned (R/D signed) projects, *Technical Assistance Project related to ODA Loan
 Development Study/Technical Cooperation for Development Planning : Ongoing projects
 Loan : Ongoing and planned (L/A signed) projects
 Grant Aid : Ongoing projects (G/A or E/N signed)

Acronyms

5S	Sort, Set, Shine, Standardize and Sustain	mSOS	Mobile SMS-Based Disease Outbreak Alert System
A&E	Accident & Emergency	NCC	Nairobi City County
ABE	African Business Education Initiative	NCHE	National Commission for Higher Education, Eritrea
ADEA	Association for the Development of Education in Africa	NTD	Neglected Tropical Diseases
AMED-SATREPS	Agency for Medical Research and Development, Science and Technology Research Partnership for Sustainable Development	O&M	Operation and Maintenance
AMREF	African Medical Research Association	ODA	Official Development Assistance
AUC	African Union Commission	OSBP	One Stop Border Post
CCFA	Customs Clearing & Forwarding Agents	PAUISTI	Pan-African University Institute for Basic Sciences, Technology and Innovation
CDC	Centres for Disease Control and Prevention	PPP	Public-Private Partnership
CEMASTEА	Centre for Mathematics, Science and Technology Education in Africa	R/D	Record of Discussions
EAC	East African Community	REA	Rural Electrification Authority
F/S	Feasibility Study	RICEMAPP	Rice-based and Market-oriented Agriculture Promotion Project
FABLIST	Farm Business Linkage Stakeholder Forum	SDGs	Sustainable Development Goals
FCTC	Framework Convention on Tobacco Control	SEZ	Special Economic Zone
GDC	Geothermal Development Company	SHEP	Smallholder Horticulture Empowerment and Promotion
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome	SMASE	Strengthening of Mathematics and Science Education
HRDID	Human Resource Development for Industrial Development	SME	Small and Medium Enterprise
INSET	In-Service Education and Training	SV	Senior Volunteer
JFY	Japanese Financial Year	TB	Tuberculosis
JICA	Japan International Cooperation Agency	TEU	Twenty-foot Equivalent Unit
JKUAT	Jomo Kenyatta University of Agriculture and Technology	TCTP	Third Country Training Program
JOCV	Japan Overseas Cooperation Volunteers	TICAD	Tokyo International Conference on African Development
JPY	Japanese Yen	TKA	Toyota Kenya Academy
KCPE	Kenya Certificate of Primary Education	TMEA	Trade Mark East Africa
KEFRI	Kenya Forestry Research Institute	TQM	Total Quality Management
KEMRI	Kenya Medical Research Institute	UHC	Universal Health Coverage
KenGen	Kenya Electricity Generating Company	UN	United Nations
KETRACO	Kenya Electricity Transmission Company	UNESCO	United Nations Educational, Scientific and Cultural Organization
KIBT	Kenya Institute of Business Training	WHO	World Health Organisation
KICD	Kenya Institute of Curriculum Development	WSRC	Water Saving Rice Culture
KIHBT	Kenya Institute of Highways and Building Technology		
KPA	Kenya Ports Authority		
KWS	Kenya Wildlife Service		
L/A	Loan Agreement		
M/P	Master Plan		
MoEST	Ministry of Education, Science and Technology		
MOH	Ministry of Health		
MSE	Mathematics and Science Education		



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