## MASTER from Japan to the World

# Spreading Japanese-style Quality Education by Utilizing an E-learning System

-A user-friendly system for public and private education in Uzbekistan-

Uzbekistan, a landlocked country in Central Asia, has been promoting education, human resources development, and ICT for fostering industrial development, as the enthusiasm among its people for education grows. However, there have been major setbacks due to a shortage of teachers in public schools, challenges associated with teachers' competency, and lack of teaching materials and private educational services.

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Under these circumstances, Digital Knowledge Co., Ltd., an e-learning systems developer and operator in Tokyo, implemented "Uzbekistan: SDGs Business Verification Survey with the Private Sector for Learning Management System (LMS) Application to Improve Regional School Teachers' Qualification and Eliminate Educational Disparity" through JICA's SDGs Business Supporting Surveys scheme in order to offer and promote the use of Japan's quality educational contents across Uzbekistan.

This project has introduced the e-learning education system of Digital Knowledge Co., Ltd. to the ICT center, Ministry of Public Education, for enhancement of both public and private education. Specifically, in the public education sector, the company provided online educational programs of leading Japanese educational companies customized for Uzbekistan, such as teaching method programs for school teachers and math materials for elementary and junior high school students. As for private education, it opened after-school classes for elementary and junior high school students, which incorporate the company's educational system, at public school buildings. The programs for teachers in particular have impressed Uzbek teachers who had never participated in any specific training on improving students' understanding and academic performance. Comments were heard like, "I didn't know there is such a way of teaching."

Mr. SAITO Yosuke of Digital Knowledge Co., Ltd. explained as follows: "The after-school classes that we started provide Japanese-style one-on-one tutoring, electronic abacus lessons, and other services. We initially planned to offer about two classes, but we ended up adding more classes in a hurry as word of mouth got



Students in Uzbekistan using the e-learning system (Photo: Digital Knowledge)



Teachers in Uzbekistan intently receiving teaching method training (Photo: Digital Knowledge)

around and applications flooded in. Although our original intention in applying for the scheme was to see if Japanese-style education business would be feasible overseas, we rediscovered the potential of Uzbekistan as a country with great possibilities where people are so enthusiastic about education and the necessary infrastructure is being developed."

"I can feel the great love that the people at Digital Knowledge have for Uzbekistan," said Mr. Kubota, a project formulation advisor in charge of this project at the JICA Uzbekistan Office. He continued as follows: "Normally, it is very difficult for a private company to persuade the Government of Uzbekistan and move a project forward. But Digital Knowledge is speedily advancing this project, based on the firm trust with the Ministry of Public Education. This owes to not only Uzbekistan's high expectations for the services of the company but also the fact that its enthusiasm has been relayed to the Government. It has also helped that the Deputy Minister of the Ministry of Public Education (at the time) has studied at a Japanese graduate school under JICA's Project for Human Resource Development Scholarship (JDS)\* and has tremendous confidence in Japanese education."

When schools across the country closed in response to COVID-19 in March 2020, the Ministry of Public Education requested the cooperation of the company directly. "The company expanded its original plan to provide free online learning programs, and this was highly appreciated by the Government of Uzbekistan," recalled Ms. Ozawa, who was in charge of this project at the Private Sector Partnership and Finance Department of JICA's headquarters.

Built on the trust between a Japanese company and the Government of Uzbekistan, Japan's quality education and ICT are contributing to the development of Uzbekistan, while responding to the desire of its children to learn.

<sup>\*</sup>See page 147 for more information on JDS.

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**Promoting Acceptance of Foreign Human Resources Gives Boost to Farmers in Laos and Japan!** —Agricultural promotion through cooperation with Lao Government, Farmers Cooperative Association in Kagawa Prefecture, and JICA—

The province of Xieng Khouang in northern Laos is located in a mountainous area which is lagging behind in agricultural and infrastructure development. It is a poverty area where hill tribes, such as the Hmong, make their living mainly through slashand-burn agriculture and collecting natural fruits. Although the Government of Laos is taking measures to encourage hill tribes to switch to settled agriculture, this has not yet led to solving the poverty issue.

The Farmers Cooperative Association in Kagawa Prefecture (the Farmers' Co-op) has been accepting technical intern trainees from Asia since 2008 and learned about the situation of Xieng Khouang, the province from which their Lao trainees had come. In 2017, the Farmers' Co-op began a project for developing agricultural production areas in Xieng Khouang to enable vulnerable farmers in the province to settle there, grow and harvest crops, and earn a stable income.

Mr. KONDO Takashi, Representative Director of the Farmers' Co-op, explains as follows: "We started experimenting with garlic seeds cultivated in Kagawa Prefecture because the climate in the cool highland province of Xieng Khouang is suitable for the cultivation of temperate vegetables and fruit trees. We established an agricultural production corporation in Laos and started growing seedlings. One of our goals for the future is to grow kiwifruit pollen for pollination. We are working with local staff to provide technical guidance and supplies to farmers that are appropriate for the local climate and conditions." Mr. MORIKAWA Takeshi of INFINI Co., Ltd., one of the Farmers' Co-op members participating in the project, shares his ambitions. "We selected fruit tree seedlings that may be suitable for local conditions and exported them from Japan to Laos. In the future, we hope to process and commercialize the crops, promote sales of superior varieties as products of Laos, and export them to neighboring countries."

The Farmers' Co-op has been making use of the Technical Intern Training Program to generate benefits for both farming communities in developing countries sending technical intern trainees to Japan, and communities in Japan receiving them. The Farmers' Co-



Technical intern trainees from Laos engaging in garlic shipment work (Photo: the Farmers' Co-op)

op currently hosts approximately 200 trainees from four countries, including Laos. The trainees learn agricultural methods while working at the member farms of the Farmers' Co-op for six years at most as of December 2020. With regard to Laos, there is a growing trend in which the agricultural production corporation is offering work to trainees after they return home, and some of them who studied in Kagawa Prefecture are playing

an active role in providing a gricultural supports in the areas where hill tribes live. This program helps Lao farmers by increasing their incomes and creating opportunities for farming and employment.



A rural landscape in the province of Xieng Khouang, Laos (Photo: the Farmers' Co-op)  $% \left( \left( {{{\rm{A}}_{\rm{F}}}} \right) \right)$ 

At the same time, for the farmers in Kagawa Prefecture it secures a stable workforce and, in the future, enables them to obtain high-quality seeds and pollen from Laos, thus leading to a win-win relationship for both sides.

In order to further expand these activities of the Farmers' Coop, the "Xieng Khouang-Kagawa-JICA Cooperation Program for Sustainable Agricultural Development" was launched in October 2019. This program aims to improve the livelihood of vulnerable farmers in Xieng Khouang province by supporting production and sale of vegetables and fruit trees through the collaboration of the Ministry of Agriculture and Forestry of Laos, the Farmers' Co-op, and JICA. JICA coordinates with the Government of Laos, facilitates administrative procedures, provides guidance to agricultural extension workers, and conducts market research related to the distribution of agricultural products. JICA Volunteers and experts also will be dispatched to support the activities of farmers and agricultural corporations. Kagawa Prefecture, for its part, is promoting new initiatives such as improvement of the environment for receiving technical intern trainees through an "All-Kagawa" approach with the support of private companies and related organizations. "The Xieng Khouang-Kagawa-JICA Cooperation Program is a good example that meets the needs of both Laos and Kagawa Prefecture through collaboration between ODA and the Technical Intern Training Program," says Mr. SHINOZAKI Yusuke of JICA's Economic Development Department.

"Rather than simply exporting Japanese techniques, it is important to provide guidance and advice on adapting them to local conditions," pointed out Mr. SUEZAWA Katsuhiko of NPO Active Chain Agriculture, a participant in this project. Representative Director Kondo describes the achievements of the project and future goals as follows. "Even after technical intern trainees returned to their countries, we continued to provide support so that they can apply the skills they learned in Japan in their home countries. As a result, highly motivated and talented people now apply for Technical Intern Training. We hope to continue this positive cycle and make sure that it leads to paving the way to the future."

It is expected that the success of the production area development project, which is based on the acceptance of foreign human resources, will continue to help promote agriculture in both developing countries and Japan.

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#### Overcoming COVID-19 with Japanese Technology and Know-how!

—Improving Myanmar's medical system through high-quality, safe medical oxygen supply system—

In Myanmar, there is an urgent need to improve the level of medical care, enhance the training of medical personnel, and strengthen the healthcare system. One of the major challenges is ensuring a safe and stable supply of medical oxygen that is essential for treatment.

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In response to this situation, Kitajima Sanso Co., Ltd., a Japanese company headquartered in Tokushima Prefecture, through JICA's Framework SDGs Business Supporting Survey with the Private Sector \*1, conducted the "Verification Survey with the Private Sector for Disseminating Japanese Technologies for establishing supply chain-management system for safe, high quality and hygienic medical oxygen in Myanmar," in five hospitals in Yangon and its suburbs from 2017 to 2020.

"The biggest issue in providing medical oxygen in Myanmar was the lack of domestic laws and rules on medical oxygen. Therefore, accidents related to medical oxygen occurred frequently in Myanmar, while in Japan it hardly occurs," Mr. Bradley Shelley, Managing Director of Kitajima Sanso, tells us about the situation at the time.

In Myanmar, there were no rules on the quality and safety of medical oxygen. As a result, the concentration of the produced oxygen was not consistent, and oxygen cylinders were transported in the same way as ordinary shipments. As hospitals also had no inventory management systems, they sometimes ran out of stock of medical oxygen because of delays in ordering by hospital staff.

In order to improve this situation, Kitajima Sanso made it a top priority to promote the concept of medical oxygen in Myanmar. Through implementing the KITAJIMA ROC (Responsible Oxygen Cycle) System, the company dedicated itself to giving instructions on every operation from the production of medical oxygen to the management of medical oxygen supply in hospitals.

The KITAJIMA ROC System is a stable supply system of medical oxygen to comprehensively deal with the production, quality control, safe delivery, and stable supply of high-quality



A Kitajima Sanso employee giving guidance on safe delivery methods to a local medical oxygen delivery staff member (Photo: Kitajima Sanso)

medical oxygen, and is highly evaluated in Japan. During the survey, Kitajima Sanso employees made numerous visits to Myanmar and provided full guidance to oxygen cylinder transporters about truck load management, safetyconscious transport methods, 5S\*2, and safety and hygiene, and to hospital staff about the management and use of cylinders.



Guidance being given on safe use of medical oxygen at a national hospital in Yangon (Photo: Kitajima Sanso)

"Just teaching the correct know-how would only increase troublesome work for Myanmarese people. Therefore, we made an effort to carefully explain why we should perform the task in every task. Myanmarese people are very talented and sincere, so they will do the work properly once they understand the reason. When I realized this, I felt a great sense of fulfillment." Mr. KONISHI Yusuke, working in the International Business Division of Kitajima Sanso, said.

Thanks to the cooperation that focused on changing awareness, when Kitajima Sanso staff visited the local hospitals that were beneficiaries of the project half a year after the survey ended, they saw that Myanmarese people had developed ROC systems on their own by using local equipment and the hospitals were providing guidance to manufacturing companies, and they noticed that the situation had changed considerably compared to before the project.

Kitajima Sanso's medical oxygen is now widely recognized in Myanmar and is also used in response to COVID-19. When a new hospital specializing in the treatment of COVID-19 was established in a hurry in Yangon, the Government of Myanmar directly requested the company's cooperation, and Kitajima Sanso's medical oxygen was supplied in the new hospital in coordination with a Japanese equipment manufacturer, the Ministry of Foreign Affairs of Japan, and the Embassy of Japan in Myanmar.

In this way, initiative taken by a Japanese company through transferring excellent Japanese medical technology and sharing knowledge is making a significant contribution to strengthening the overall national health and medical system in Myanmar.

<sup>\*1</sup> Formerly "Verification Survey."

<sup>\*2</sup> Widespread adoption of five steps: Sort, Set, Shine, Standardize, and Sustain (55).

## from Japan to the World

**Preparing for Unknown Infectious Diseases in Africa!** —Joint research on zoonotic virus infections between Hokkaido University and the University of Zambia—

Zoonoses caused by viruses that infect both humans and animals, such as COVID-19 and Ebola virus disease, have become a global threat in recent years. Outbreaks of viral zoonoses have also been confirmed in Zambia. It has become a priority for the country to control them. Furthermore, it is highly possible that yet unidentified viruses exist in Africa, and research projects on such novel viruses are now attracting attention not only in Africa, but also on a global scale.

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Under those circumstances, the "Project for Surveillance of Viral Zoonosis in Africa" was carried out in Zambia from 2013 as a joint research by Hokkaido University and School of Veterinary Medicine, the University of Zambia (UNZA-SVM) under the Science and Technology Research Partnership for Sustainable Development (SATREPS)\* program. Additionally, a succeeding project, the "Project for Epidemiology of Zoonotic Virus Infections in Africa," is being implemented since 2019.

The first step in these two projects was the construction of a virology laboratory with an animal facility to improve the research environment at UNZA-SVM, which had almost no infrastructure for education and research on viral zoonoses. Additionally, diagnostic methods for viral zoonoses such as viral hemorrhagic fever were introduced to the researchers of UNZA-SVM.

Dr. TAKADA Ayato at the Research Center for Zoonosis Control (CZC), Hokkaido University, explained as follows. "This project began thanks to the longstanding close ties between Hokkaido University and UNZA. A school of veterinary medicine was established at UNZA with the cooperation of Japan about 30 years ago. Then, Hokkaido University's faculty members visited Zambia to train people from scratch and help UNZA to establish a veterinary school. This was the beginning of the exchange between the two universities. Later, our cooperative relationship was further strengthened, as CZC was established at Hokkaido University and a joint



Checking the presence of a virus (Photo: Hokkaido University)



Dr. Takada and UNZA-SVM researchers collecting blood from a bat in the field (Photo: Hokkaido University)

project with UNZA was launched." Dr. TAKADA is acting as a central figure in this project.

The Democratic Republic of the Congo (DRC), Zambia's neighboring country, has also joined in the succeeding project which started in 2019, handling not only samples of animals such as arthropods, but also those of humans. The project is intended to strengthen the epidemiological research capacity of the research institutions in the two countries and improve their diagnostic capabilities. This project and the preceding project from 2013 have already discovered various viruses in Zambia. In the DRC, it is expected that the project might contribute to early detection and enhancement of measures against Ebola virus disease, of which there have been several outbreaks in the country since 2017.

Hokkaido University has been accepting students from Zambia and the DRC. The University has been carrying out programs for training them to create experts on zoonosis control. UNZA-SVM has conducted more than 60,000 specimen tests in response to the COVID-19 pandemic. Those who studied at Hokkaido University and came back to their countries are active as core personnel in combatting COVID-19.

Dr. KAJIHARA Masahiro, a faculty member working with Dr. Takada at CZC, expressed his hope for Zambia as follows. "It was hard to train veterinarians in Zambia before; however, they are doing it now. Zambia is even accepting graduate students from other African countries and is becoming a center for veterinary research in Africa."

Longstanding academic cooperation between Japan and Africa is about to bring about great strides in measures against infectious diseases, a transborder issue, with a view to preparing for infectious diseases in the future.

<sup>\*</sup>See the Glossary on page 40.