KDDI Foundation Activities for Achieving SDGs

—ICT Infrastructure Buildup and Human Resources Development in

Myanmar—





1. Introduction

In 2015, the United Nations summit adopted the 2030 agenda for sustainable development to transform our world, containing 17 Sustainable Development Goals (SDGs) and 169 targets by 2030. These SDGs promote prosperity for all countries while protecting the planet. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection (Ref: United Nations website). SDGs reflect the grand global objective of "No one must be left behind."

SDGs can only be achieved by integrating the knowledge and expertise of diverse fields spanning economics, society, the environment, and science and technology. Information and communications technology (ICT) will play a significant role in this endeavor. It is also important to raise the level of infrastructure buildup, education, and science and technology especially in developing countries to eliminate inequality among countries

As a Public Interest Incorporated Foundation fulfilling the

corporate responsibility of KDDI Group by social contributions, KDDI Foundation has been engaged in international cooperation supporting many developing countries such as Cambodia, Myanmar, and Nepal for the purpose of contributing to the sustainable development of international society. As an example of these activities, this article introduces ICT infrastructure buildup and human resources development in higher education in Myanmar.

2. ICT infrastructure buildup for education in Myanmar

Improvement of the ICT infrastructure for educational purposes plays a very important role in Myanmar's national reformation. In Myanmar, where the ICT infrastructure for education is still weak, the first action taken up by parties related to higher education in Myanmar and concerned parties from Japan including KDDI Foundation was to construct a cloud network for universities via Asia-Pacific Telecommunity (APT) projects. The first project to construct a private cloud system for use within a university began in fiscal year 2014. This involved the construction of an on-campus cloud system at the University

Figure: Myanmar network for higher education constructed through APT projects

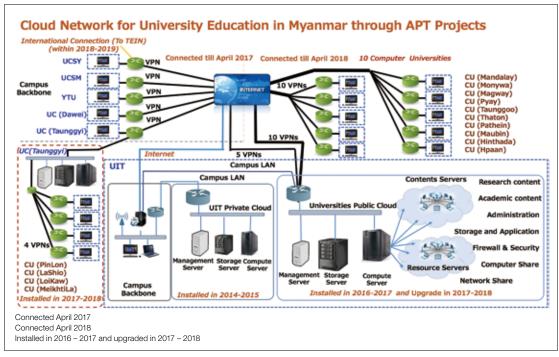


Photo 1: Server construction work with two university instructors (center of photo)



of Information Technology (UIT)—a core university for computer studies in Myanmar-for education and research, and technology transfer of methods and techniques for using, operating and maintaining, and configuring this system. Following this, in the 2nd APT project started in FY2016, we connected the cloud system to six universities based on a Virtual Private Network (VPN) and implemented advanced ICT educational programs in the cloud system. After that, in the 3rd APT project started in FY2016, the number of universities connected to this system was extended to 16 and cyber security functions were strengthened. Furthermore, based on financing provided by KDDI Foundation, four more universities were connected and three more sub-cloud systems were added at University of Computer Studies, Taunggyi, Yangon Technological University and University of Computer Studies, Mandalay. This completed a highly reliable distributed cloud system for 20 universities. We expect this shared cloud system for universities to contribute to advance education and research activities in Myanmar and to help a progressive expansion of Myanmar's educational network infrastructure.

3. ICT Human resources development

KDDI Foundation has been hosting an Application Contest for University Students since FY2017 under the theme of solving social problems through application development. The first contest was attended by 18 universities including universities related to the APT projects. Out of 55 teams, 10 teams passed a preliminary selection process, and the final contest with presentations and demonstrations was held on March 3,

2018 in Yangon, Myanmar. This contest was supported by the Embassy of Japan in Myanmar and cosponsored by several Japanese companies. In addition, Professor Hiroshi Esaki of the Graduate School of The University of Tokyo served as co-chair of the judging committee for this contest. The winner was TEAM EASY-Q of UIT, which won for the sophistication of their application and their skillful demonstration. The second Application Contest was held again, in Yangon, Myanmar, on February 23, 2019. The number of participating universities increased to 46, and both

programing and presentation skills showed much improvement since the last contest. These contests aimed not only to sharpen technical skills in programming but also to develop problem identification and analysis skills, comprehensive-planning skills, and presentation skills in English. We have confidence that continuation of these kinds of activities can contribute to the sustainable development of Myanmar. They are an effective means of developing ICT human resources and we plan to expand the scale of such activities in the future. We also promote a variety of application validation experiments based on collaboration between Japanese and Myanmar's universities. On October 18, 2018, demonstration of remote medical care learning between Kyusyu University and three medical universities in Myanmar was conducted.

In addition, KDDI Foundation and the Asia Pacific Network Information Centre (APNIC) have jointly started to sponsor training in advanced Internet technologies for university instructors and network managers throughout Myanmar. Two training courses were provided at University of Computer Studies, Yangon in September and December in 2018. Training instructors and teachers, as well as students, will be essential for future self-reliance from the view point of sustainability.

4. Conclusion

It is important that many people across diverse countries and fields fulfill their respective roles on the path toward achieving the SDGs. They must share the overall goal of solving a wide range of social problems so that everyone as global citizens can participate equally in a prosperous future. In this article, we introduced activities in Myanmar on human resources development and improvement of the educational environment through ICT technologies for the purpose of eliminating inequality among countries. Similar activities focusing on the spreading of ICT and enhancement of educational environment in developing countries have been conducted, such as the building of schools and installation of computers, holding of English and music classes in Cambodia, installing optical fiber systems in Mongol, Nepal and Cambodia, and introducing an e-leaning system for universities in Nepal.

KDDI Foundation hopes to contribute to achieving these SDGs through ongoing and committed activities in developing countries while strengthening its global partnerships and spreading Japanese technologies as an advanced ICT nation.

Photo 2: Group photo at Application Contest

