Implementing Skills Training for Disaster Prevention, Telemedicine, and Sensor Networks (2014 APT-J4 Training)

2015.04.21 Tue 13:37/Human Resources Dev.

The APT (Asia-Pacific Telecommunity) organizes human resource training courses every year under the framework called the APT-J4 Program for engineers from APT member countries who work in the information and communications sector. This year, we made a proposal, which was accepted by the APT, for a training course on "The Use and Application of ICT Services and E-applications to Bridge the Digital Divide." This is the fourth consecutive training course with which we have been entrusted by the APT since 2011.

APT trainings are aimed to build the human resources necessary to develop the economies and societies of developing countries. In order to do so, the APT solicited and selected participants for this training course from APT member countries, getting 13 people from 12 countries to come to Japan. For three weeks, beginning on March 3rd, 2015, we introduced the participants to various examples of ICT applications currently being used in Japan in places like Tokyo, Sendai, and Tono. These include disaster prevention and reduction systems, telemedicine, M2M sensor networks, as well as environmental and E-agriculture.





Although broadband networks are nowadays widely available through optical and mobile communications in many Asian countries, big issues remain, like regional inequality in medical services and education, as well as the lack of knowledge concerning information security.

Now that all the participants have had the chance to learn about how Japan implements advanced ICT in new urban development projects, and that they have been able to look at real-life examples, we hope they will become future core citizens of their respective countries who can promote their countries' necessary projects by using ICT. We think that this training course has served as a good preparation for investigating specific joint projects with each country within the framework of the APT-J3/J2 programs in the future.

The distinctive features of this training were the following: a) that the participants had the opportunity to participate in the Third UN World Conference on Disaster Risk Reduction, held in Sendai; b) that they increased their awareness concerning disaster prevention and reduction by observing the area struck by

the Great East Japan Earthquake; and c) that they obtained insights for planning projects for their own countries by learning about sensor technology that forms the basis of medical ICT and environmental ICT.

As a result of the rapid increase of devices like smartphones and tablets, as well as the growth of the distribution of rich content, these things have come to form a new and vital foundation for people's daily life and socioeconomic activity. Seeing the fact that the participants were more proficient at using ICT devices compared to the BHN staff who accompanied them to the observation sites, we hope that the participants will quickly incorporate and extend the use of Japan's advanced technology.

Normally, the APT pays the travel fees for one participant per country as an "APT fellow." However, there was another participant from Afghanistan in addition to the APT fellow, paying necessary expenses on their own. This was the second year in a row that additional participants have been sent from Afghanistan at their own expense. We understand that this is a sign that people appreciate the content of the trainings offered by BHN. At the same time, we were happy to find out that the participant from Myanmar was one of the participants of the BHN's first human resource training 16 years ago. We feel that we have been able to build much stronger human connections throughout Asia.

Thanks to all the BHN staff who supported this project by fulfilling their respective roles, we were able to successfully finish conducting the training. We sincerely thank everyone for their help.





Hachihei Kurematsu, Vice President English translation by Mariah Gomes

Report on Initial Investigation of the April 2015 Nepal Earthquake (Report 3): Investigative Team Has Returned Home

2015.06.25 Thu 16:37/Emergency Relief (05.15)

Two members of the investigative team that went to Nepal on May 3rd and continued the investigation returned home on May 14th. Therefore, including the member who had already returned, all members have safely come home.

On May 12th, the day before the two members were to return, there was a large M7.3 aftershock. Due to this, there were worries about their returning home; nevertheless, they were able to complete their duties and safely return home.



From May 4th until May 12th, the investigative team exchanged information with four organizations, including the U.N. Emergency Telecommunications Cluster (ETC), as well as ICT related organizations in Nepal.

The team also exchanged information with two experts; additionally, it investigated five locations that were struck by the earthquake, as well as four refugee camps. <u>In report 2 (only in Japanese)</u>, we included some information on the state of the areas affected, and in report 3 we detail some of the investigation's results.





In the past, BHN has helped with setting up CA systems (Community Addressing System), restoring FM radio stations, and providing mobile phone charging services for emergency aid in countries like the Philippines, Haiti, and Myanmar in response to disasters such as earthquakes and hurricanes.

Just as we have in the past, in response to this earthquake, we met with Nepali organizations we had contacted before and confirmed the need for these services.

As a result of the meeting, we learned that there are nearly 500 FM radio stations throughout Nepal, and that they constitute the mass media that covers almost the entire country. Furthermore, we discovered that dozens of community FM radio stations were damaged as a result of this earthquake.

On one hand, we learned that CA systems do not have a very good reputation in Nepal because in some cases they have caused noise complaints owing to the fact that CA systems rely on the use of loudspeakers to convey information. In addition, refugee camps that we had assumed to be the sites for installing CA systems are being closed down in succession.

On the other hand, we received requests from the U.N. ETC, as well as from a number of other organizations to assist with recovery of damaged community FM radio stations. Furthermore, in regards to a mobile phone charging service, it is true that needs for such a service exist, but these needs are mostly from remote areas in the mountains. Due to this, we found that there would be considerable difficulty associated with providing traveling mobile phone charging services.

Therefore, in order to investigate the damage to community FM radio stations, we visited Radio Sindhu (105 MHz, 100W) in one of the most damaged areas, Sindhupalchowk district, which is approximately 90km east of Kathmandu.





The office building that housed the station was cracked by the earthquake, causing it to be uninhabitable. Therefore, the broadcasting equipment was transported from the building, and the station's broadcast was finally restarted two days after the earthquake.

The tent that replaced the studio was donated the day before we visited. Before that, the people who run the

station were forced to broadcast from an extremely small tent that barely fit one person. At present, the tent is set up on the premises of the district's administrative affairs office.

The tent needs to be removed soon, but the station cannot be sent back to its original building. Therefore, the station's manager is searching for vacant land from which to broadcast.

Here at BHN, we hope to quickly advance plans to create and implement an aid project based on the information that we have obtained from the area, as well as the requests that we have received.

English translation by Mariah Gomes

2015.07.09 Thu 18:04/Development Support

As the rainy season is starting in Myanmar we are accelerating our solar power installation works.

The construction of roads and bridges are going on at surprising speed in the Karen State, yet, there still are many rivers without bridges and, when the river is wide and deep, we have to use boat to carry equipment & materials.



After the completion of the solar systems, their ownerships are transferred to the owner of the premises (school or hospital).

As the maintenance work is quite important for the longer life of the systems, as well as to save the cost for maintenance, we are conducting maintenance training, choosing people to take responsibility for the maintenance works.



Currently we are working to install solar power systems to the District Hospital with 100 beds in the township of Hpa Pun, which is expected to be finished by the middle of July.

By Hirofumi Aizawa, Project Manager

2014.08.01 Fri 10:17/Development Support

By the end of May 2014, BHN Association completed installation of a solar power system in the High School of Paung Village.

School rooms are now lit with LED lamps and a large screen (50 inches) TV set with a video player is used for visual studies. Dormitories for teachers and the school toilets are now also lit brightly.





After the construction works, trainings were conducted in June for enabling the local people to maintain the system after it is transferred to them.

The village of Paung is located about 50km from Hpa An, the capital of Karen (=Kayin) State, and many families of refugees are gradually returning to the villages around this area after the ceasefire between the central government and KNU (Karen National Union) has been established.

The high school has 126 students coming from 17 neighboring villages. Many of the high school students are staying overnight in the school to study until late hours to prepare for exams for higher education, however, lack of funds prevented running a dynamo until late at night so as to satisfy the needs of the students.



BHN is now preparing to build a system of the same type in another high school in another village where many refugees are returning.

Hirofumi Aizawa, Project Manager

2016.02.05 Fri 12:09/Development Support

Myanmar is blessed with natural energy resources like gas, oil and water, yet only 30% of its population has access to electricity. Especially, in the areas of battle fields of armed clash that lasted over 60 years, there is definitely lack of all kinds of infrastructure, including roads, electricity, telecommunication networks and so on.

BHN has been installing solar power generation systems in public facilities of Karen (Kayin) state. In addition, provided that the radio wave can be received in the area, we have installed solar-powered radio telephone sets upon request.

In the visiting area of Shan Ywar Thit Hospital, there are seven small villages where there is no doctor nor access to the national grid services. In order to enable the local people to contact the hospital, we set up a special type of radio telephone systems made for remote countryside, but the radio wave was too feeble to establish stable connections. As a solution, we built large antennas on tall poles. Now villagers can consult doctors in the distant hospital whenever they need help.



However, the difficulty is that many of the villagers don't have money to pay for the phone so many times. It's because they still don't have a way to get cash or even if they have, it's very limited.

Under such situation, XMobile Co., a Japanese mobile virtual service provider, offered us to donate to help those people in need of access to telephone services.

With the funds donated from XMobile Co., BHN purchased pre-paid telephone cards and distributed to each of the villages and schools where BHN installed radio telephone systems.



By Hirofumi Aizawa, Project Manager

2016.02.25 Thu 11:15/Development Support

Long-awaited community radio station has finally marked the official opening in Hatiya island, Bangladesh.

Hatiya island is formed by alluvium that soil is carried by running water and accumulated. Because of this, Hatiya is as low as around five to six meters of its sea level, which makes the island vulnerable to cyclone. Adding to this, infrastructure is underdeveloped in this area. Electricity is accessible only in the central part of the island. Despite disadvantaged condition, approximately 300,000 people are living in Hatiya island. Nevertheless, major radios and TVs mainly broadcast news relevant to the people in the capital, Dhaka, and it's very rare to find news about Hatiya. Therefore, people in Hatiya put great hopes in community radio to bring local news to them.

As of December 2015, according to Ministry of Foreign Affairs of Japan, safety level in Bangladesh was level 2; discontinuation of non-essential travel. Under such a circumstance, our travel wasn't allowed until last minutes, but we were fortunate to be able to eventually travel. Inauguration ceremony was held on November 12th with BHN president's participation.







It was such an exciting news for people in Hatiya that Home Minister and Chief Representative of JICA Bangladesh will be attending the ceremony. With no VIPs foreseen to be present at the ceremony, it was initially planned to be a plain one, but now the story became different. People got suddenly busy to clean around the village and to welcome VIPs with posters and flags.

The ceremony under heavy guard started with speeches of Home Minister, Secretary of Information and Chief Representative of JICA Bangladesh. After that, official opening of Radio Sagor Dwip was announced. A number of villagers gathered to see this commemorable scene.







Along with Inauguration Ceremony, Signing Ceremony of Equipment Delivery was also held. From now on, Local partner NGO, DUS, takes responsibilities on proper use and maintenance of the antenna tower, broadcasting equipment and solar panels.



Radio Sagor Dwip is finally launched after a preparation period of a year and half, but this is the real start for the project. We continue working with local volunteers to bring quality information and to gain confidence from villagers with the aim of saving lives in disasters.

Project Coordinator Tomoko Uchiyama English translation by Mami Takahashi Nepal: Relief Project for Aiding Survivors of Earthquake in Central Nepal—Completion of the First Phase and Start of the Second-

2016.05.10 Tue 14:03/Emergency Relief

The main quake (M7.8) on April 25th and the afterquake on May 12th (M7.3) hit central Nepal and caused death to more than 9000 people.

Following the field research in May, BHN offered recovery assistance to nine community FM radio stations in Sindhupalchowk and five other districts from June.

It was initially planned to be completed by October, however, we had to suspend the project due to political disturbance in Nepal that brought scarcity of gasoline and necessary goods.

Finding necessary resources and equipment in the free market, we resumed construction of radio station buildings in December in cooperation with the local partner, Asia-pacific office of AMARC (The World Association of Community Radio Broadcasters.) We handed over repaired and/or rebuilt studios and radio station buildings as well as delivered broadcasting equipment on December 25th, so that we could finally complete the project with two months' delay.

<1st phase support activities>

| District | FM Radio | Equipment | Building | Building | Studio |
|----------------|----------------|-----------|--------------|------------|------------|
| | | | Construction | Renovation | Renovation |
| Sindhupalchowk | Radio Sindhu | 0 | 0 | | 0 |
| | Sunkoshi FM | 0 | | | |
| Dhading | Radio Dhading | 0 | 0 | | |
| Rasuwa | Radio Langtang | | | | 0 |
| | Radio Rasuwa | О | | | 0 |
| Gorkha | Radio Gorkha | О | | 0 | 0 |
| | Barpak FM | О | | | |
| Dolakha | Radio Sailung | О | | 0 | |
| | Hamro FM | 0 | | | |



Furthermore, we have begun the second phase of the project, spanning 100 days from February 18th to May 24th. Eight target radio stations are located in five districts near the epicenter, which were not accessible last year. We will support studio repair works and deliver equipment as we did in the first phase.



Project Manager Kenichi Terauchi

Myanmar Karen: Training of "Solar Power System Advisers"

2016.05.17 Tue 10:51/Development Support



In the three-year project, BHN has installed solar power generation systems and radio telephone sets (upon request) in Kayin (Karen) state, Myanmar, in three hospitals, eight high schools, one town hall and seven villages without doctors.

The government of Kayin state has also installed solar power systems into many households in remote areas. However, the government staffs responsible for these areas do not have enough knowledge about solar power electricity and its generation system so as to be able to give proper advice to villagers.

To solve this situation, upon request from the state government, BHN conducted trainings for the government staffs both in class and in field. After the training and following examinations, BHN awarded "Solar Power System Adviser" title to 19 qualified government staffs.

In the graduation ceremony in January, more than 100 government directors and staffs participated to celebrate the award recipients. These staffs are now going around the remote areas wearing the blue shirts with "Solar System Adviser" printed on the back.







By Hirofumi Aizawa – Project Manager

Myanmar Karen: Water Pump Installed in Kaw Tar Ho Village

 $2016.07.28~Thu~10{:}26/\underline{Development~Support}$



The village of Kaw Tar Ho (KTH) is located in the Eastern part of the State of Kayin (Karen) ,about one-hour drive from the State capital, Hpa An, with 175 households (about 1500 villagers). As KTH village has suffered from armed clashes several times, many of the villagers are returnees from refugee camps or IDPs (Internally Displaced Persons).

Mainly due to lack of irrigation system, the villagers can harvest rice crops only once a year, whereas, in most other areas of Myanmar, rice is commonly produced twice a year. Thus the water shortage has been an obstacle for the villagers in getting more money through multiple cropping as well as in improving their daily lives.

Their well is shallow and dry up easily in dry seasons. Until a few years ago, they used to pump water up from the deep well in the village of Shwe In Don (SID) located about 700 m away from KTH village and then stream the water using water conduit, however, the fuel cost for running the water pump was too expensive for them to continue paying. Therefore, they couldn't help but carrying water buckets on their shoulders from nearby villages and rivers since seven or eight years ago.

BHN was about to close the works for the 2016 fiscal year by the end of March, when it decided to install solar powered pump for the well in the village of SID so as to enable water supply without the need of fuel for running the pump. The water pipes connecting to the two villages had been abandoned for some time but the villagers volunteered to repair them.

In early June, the water pump started again to supply water for the two villages. The villagers applauded as they watched the water tank filled up very quickly, and later, the villagers were so thankful that their representatives visited our office in Hpa An and handed an appreciation letter to BHN.





By Hirofumi Aizawa – Project Manager

Myanmar Delta Area: Community Loud Speaker System Management Workshop and Disaster Training Course held in Bogale and Pyapon

2016.08.08 Mon 13:47/<u>Development Support</u>



In the first phase project started last September, community loud speaker system installation began in March this year and was completed before water festival in April.

After each installation, we have been providing villagers knowledge and skills by holding workshops on system operation and management in order to enable the system to be used properly and sustainably. This time, 57 people from 22 villages in Bogale and 62 people from 22 villages in Pyapon participated. Not only teaching techniques and knowhow, but we also encouraged participants to exchange their thoughts.

Furthermore, in addition to emphasizing the significance of the system, we explained how to use the system in ordinary and emergency situations, together with its maintenance and management. We also introduced practical examples of disaster warning wireless systems in Japan.

Besides, we cooperated with SEEDS Asia (a Japanese NGO) on disaster training. Parking a disaster training vehicle at the site, they explained about mechanisms of natural disaster such as cyclone, storm surge and flood and evacuation procedure using miniature models. All participants answered "Yes" in a questionnaire that asked them if the training was meaningful and useful on their daily life.





As a new content of the project, we prepared hazard maps and put on bulletin boards in 12 villages. In the hazard maps, evacuation routes are shown and highest water level of the last cyclone is marked on its pillar. In a briefing session after installation, villagers were pleased finding their homes on a map.

From now on, we will monitor the community loud speaker system every other year to assure that they are properly taken care of. Also, we keep telling about hazard maps to develop better understanding.



Project officer Eiichi Watanabe

Myanmar Karen: Research Visits in the KNU areas

2016.10.17 Mon 15:21/Development Support





Soon after the independence of Burma in 1948, the people of "Karen" was one of the first ethnical groups that revolted against the central Burmese government to achieve independence (then after, broader autonomy) in their areas. More than 60 years of appalling civil battle continued, but at last, KNU (Karen National Union) signed the ceasefire agreement with the Myanmar government along with the other 7 ethnical armed groups (EAGs) by the end of last year.

To contribute to the progress toward permanent peace by making people in the KNU areas to realize the value of peace, BHN started a project to install solar electric systems into 1,370 households in the areas of the state of Kayin (Karen).

The EAG areas definitely lack all kinds of infrastructures including paved roads. Since Myanmar is now in the middle of rainy season, the access to the villages is possible only by boat and on foot. BHN engineers are conducting research visits to remote villages, walking in mud from time to time and staying in villagers' houses every night.

Actual installation works are expected to start from the end of October (depending on the weather circumstances). Now the procurement of materials and the preparation of standard work arrangements are under way.



By Hirofumi Aizawa – Project Manager

2016.12.26 Mon 12:17/Development Support





In Myanmar, access to national grid services is still limited to around 30% of the total population and the electric service is frequently interrupted by black-outs even in the big cities. In the State of Kayin(=Karen), the electrification ratio is still under 10%, one of the lowest figures in Myanmar.

In order to improve such a situation, especially in the public facilities, BHN has been installing solar power systems to eight high schools, three hospitals, one village well and other public places since 2013.

The State Government of Kayin is also actively distributing solar systems to private houses in the rural areas, however, they just give equipment without necessary information for installation, usage and maintenance. At the same time, the State staff do not have sufficient knowledge to teach villagers on the proper use of solar systems they have distributed. Such a situation caused too many severe damages and troubles with the solar systems.

For the purpose of nurturing the State staff in charge, BHN conducted educational courses in 2014-2015. The curriculum was designed to enable them to guide villagers on the proper use of solar systems, as well as on ways how to repair simple defects.





In 2016, BHN started an advanced course to train them on two tiers or levels: Solar System Adviser course (Tier-1) and Training on Trainers course (Tier-2). Once the students pass the examination for Tier-1, they will be awarded the title of "Solar Power System Adviser" from the State Government. On Tier-2, students are basically chosen from the Solar Power System Advisers of the preceding year expected to play the role of training future Solar Power Advisers.

By running these courses even after BHN has left, the State Government will have a sustainable system for fostering future Solar Advisers.

By Hirofumi Aizawa, Project Manager

Nepal: Second phase assistance activities to earthquake-affected people successfully completed

2017.02.08 Wed 15:28/Emergency Relief



The earthquake that occurred in Nepal on 25th April 2015 victimized nearly 9,000 people and injured another 22,000. The number of damaged houses reached one million. Following the first phase support activities which started immediately after the earthquake on 18th June 2015 until 25th December 2015, BHN started the second phase support for FM radio stations on 18th February 2016 and successfully completed the support activities on 24th May 2016 as planned.

Assistance to FM Radio Stations on Remote and Mountainous Areas

In the second phase, BHN provided broadcasting equipment and rebuilt hut for eight FM radio relay stations in five districts around the epicenter.

Out of these eight stations, six stations outside Kathmandu were those which had been excluded from target areas in the first phase because of the difficulty to access the sites: they were located in remote mountainous areas, thus prone to road closure and highly risky to landslides in rainy seasons.

Kairan FM station is located in a highland region at 2800m above sea level so that the local government's support could not reach this area. For this FM station, we set up UPS batteries upon their request. Since the site is in a remote area, it took us more than ten hours to arrive. After setting up the UPS, the Kairan FM station chief told us happily that they can respond to local people's consultation requests, which are increasing in number after the earthquake, since the batteries enable them to continue broadcasting even during power outage, which sometime lasts as many as 14 hours a day.



In the Palung FM station three hours from Kathmandu, we supported the rebuilding of the collapsed station hut. This station hut was on the summit of a mountain 2750m high and it took us about 30 minutes to climb up a steep and rocky road from the foot of the mountain, so manpower was the only way to carry the materials. In the opening ceremony held on 22nd May, not only the FM station staff, but also local parliamentarians, local government managers and local residents attended. This reminded us that the role of the FM station to the area was very significant.

<2nd phase support activities>

| District | FM Radio Station | Equipment | Relay Station |
|------------|------------------|-----------|----------------|
| | | | Reconstruction |
| Ramechhap | Kairan | X | |
| | Likhu | X | |
| | Hazurko | X | |
| Nuwakot | Nuwakot | X | |
| Makuwanpur | Palung | | X |
| Lamjung | Marsyangdi | X | |
| Kathmandu | Newa | X | |

| Mero | X | |
|------|---|--|
| | | |

Support for introducing new services

BHN introduced the case of a Day Care Center in the city of Patan to the members of the FM stations as an example of possible future local service (Table 2). The Day Care center was established with the cooperation of professors of Japanese universities and it is voluntarily run by the local women's association in Patan City. Palung and Sindhu FM stations showed strong interests in the introduction of a similar Day Care Center in order to enhance the role of the FM station as a community center, and local municipalities also expressed their intention to support the FM stations. They are more positive than expected and we are planning to consider ways for supporting them in the future.

| FM Station name | FM station's comment | Municipality's comment |
|-----------------|----------------------|---------------------------------|
| Palung | willing to introduce | ready to help introduce |
| Sindhu | willing to introduce | ready to form a committee |
| Newa | interested | (no chance to ask for comments) |



Support needs to continue

Although the FM stations operated by NGOs in Nepal are financially in a tough situation already, this earthquake made the situation more difficult. Even now after more than one year, some FM stations damaged by the earthquake do not have the prospects of getting repaired yet. For example, at the Hazurko FM station, the staff has continued broadcasting from the station house that has been cracked even though they knew it is dangerous. As another example, the Newa FM station installed a temporary antenna and has been using it since, because they cannot repair the damaged antenna due to lack of budget. These cases clearly indicate they need continued assistance.

Project Officer, Hiromichi Suzuki

Completion of Second Semester of the 18th BHN Human Development Program

2017.02.20 Mon 17:10/Human Resources Dev.



The second semester of the 18th BHN Human Development Program was held in Tokyo from June 1 to 24, 2016. Each of the following nine Asian countries sent one participant; Bangladesh, Cambodia, Indonesia, Laos, Myanmar, Philippines, Sri Lanka, Uzbekistan and Viet Nam. The group comprised of five engineers and four non-engineers, with seven males and two females. They were promising persons engaging in ICT related ministries or telecommunication service firms.

Programs focused on topics of high interest in Asia

This course intensively aims at fostering leaders in the ICT field in Asian countries with balanced thinking ability and global sense (cosmopolitan way of thinking).

In the first half of the training as the HIDA's* orientation program, the participants learned Japanese culture and the basic knowledge necessary for staying in Japan. In the second half, they completed BHN Training Course focusing on ICT-related topics considered to be highly interesting to Asian countries.

*HIDA: The Overseas Human Resource and Industry Development Association

In the lectures and study visits, we adopted topics covering a wide range of fields and special topics related to "disaster risk reduction, medical care and agriculture by utilizing ICT" and "future perspective of society based on the rapid development of ICT from the aspect of technology and business." The participants highly evaluated the lectures which we believe to have satisfied their interests.

Through the study visits, the participants visited and had hands-on training at research institutes, manufacturing sites of Japanese companies and agricultural laboratory of Japanese unisersity which are fully equipped with cutting edge technologies.

In the weekend homestay, the trainees received dedicated reception with warm hospitality from host families and it made these two days the most heartfelt and memorable moment during their stay in Japan.





See all pictures

Commencement Ceremony

In addition to the lecturers, host families, cooperating company employees and guests representing the embassies including the Cambodian Ambassador attended the Commencement Ceremony who delivered congratulatory addresses. And also, the guests kindly watched the presentation of completion certificates handed to the participants.

Project Manager, Kazuhisa Konoma

2017.04.27 Thu 11:39/Development Support

In the past year BHN has been conducting two programs in the State of Kayin(=Karen).

1. Educational Training on Solar Electricity Systems (SES) to the State Employees
The coverage ratio of national grid in the State of Kayin still remains around 10% of the population. Under such a situation, the State government has been distributing SESs to individual households in the rural areas.

As BHN is going to end the three-year project of installing SESs in the public premises, the sustainability of the SESs built by BHN, as well as of the SESs built by the government, is quite an important issue and we are now in the last stage of ToT (Training of Trainers) project.

As many as 12 to 15 State employees are expected to pass the examination to be qualified as SES Trainers. They are expected to play the role of teachers training others to become "Solar Advisers," who will guide and educate villagers.



ToT participants helping solar advisor cadidates with assignments



The workshop for Solar Electricity Systems in KNU village

2. Electrification in the KNU villages

After the rainy season in November last year, BHN started installation works of 1,370 SESs in the houses of the 15 villages in the KNU area. As almost all of the 1,370 systems originally planned were installed as scheduled by the end of February, we are expecting to install another 200 systems before the next rainy season starts.

Even after the completion of the 1st stage project, a large number of people will be still left without electricity. BHN is now coordinating with KNU, Government and other organizations for the next project to install SESs for houses and public facilities in the KNU area.

The Nippon Foundation (TNF), another Japanese organization working in the same area, is building houses and local clinics in the area. TNF and BHN had concluded agreements in advance, and based on this, we have been running the project cooperatively.

Both KNU and Myanmar Government are appreciative of the projects undertaken by TNF and BHN that they are becoming good examples to enable people feel the "Value of Peace," and that they shall encourage other Ethnical Armed Groups to seriously consider making further steps for peace agreement.



Classroom in the KNU village



Coordination Meeting with KNU, Government, BHN and others

By Hirofumi Aizawa, Project Manager

The Japanese Telemedicine and Telecare Association (JITA) together with the Asia eHealth Information Network (AeHIN) and BHN (NGO) has organized the ASEAN-Japan Health ICT Forum 2017 for the period of 19 – 23 February in Japan. The forum was held in the framework of ASEAN-Japan Health Initiative. The objective of this forum is to share and exchange knowledge and experience on healthcare ICT, or eHealth, among ASEAN countries and Japan.

The participants consisted of 27 representatives from eight ASEAN countries, two special guests, two from ASEAN secretariat and many from Japan as hosts. In addition, 170 participants attended the conference from Japan as observers.

They had meetings in Tokyo and study tours in Tochigi, Gunma and Kagawa prefectures. The participants learned about common needs and issues in the following subjects:

- > development of healthcare among ASEAN countries
- > the role of ICT as enabler
- > force multiplier and key driver in achieving excellence in healthcare services
- > challenges and concerns related to good governance
- > relevance and retention of skilled manpower
- > the need for telemedicine and telehealth to improve the healthcare delivery especially for countries wherein the population is spread across a large geographical location



Study visit to Dokkyo Medical Univ. for obserbing nursing care robots



Visiting rare sugar factory in Takamatsu

The key message out of this forum that emerged from the exercise conducted by AeHIN could be summarized by the term "Mind the GAPS and Fill the GAPS." The abbreviation "GAPS" means the following:

Governance: ICT applications in healthcare need to be governed by the highest accountable officials. This means they define the expected benefits, the risks to watch out for and allocate resources.

Architecture: ICTs in healthcare need a clear blueprint so that all stakeholders in a given country will know how they can contribute to the structure as a whole rather than silos.

People and program management: ICTs in healthcare requires capacity-building of key sectors (clinical, IT and administration) working together to make it work seamlessly.

Standards and interoperability: ICT healthcare works best if standards are adopted and observed by all stakeholders.

Through the forum, the participants shared awareness that is categorized in:

- > Capacity building
- > Collaboration (Annual Forum)
- > Implementation of eHealth Projects
- > International policies (Regulatory Framework)

As the first step to implement Key Messages and shared Awareness, AeHIN in consultation with JTTA and BHN, called for action for regional capacity building on Healthcare ICT technology in support of universal health coverage (UHC), non-communicable diseases (NCD) and disaster management in the ASEAN.



Participants of ASEAN-Japan Healthcare ICT Forum in Tokyo

Hachihei Kurematsu, Project Manager

2017.05.02 Tue 14:42/Human Resources Dev.

BHN conducted the training course "Utilization of ICT Services and E-Applications" focusing on E-Applications supporting the Smart Society such as Medical ICT, Sensor Networks and Agriculture/Fisheries ICT, between March 7 and 17, 2017.

In the training course there were lectures and site visits for the purpose of helping the countries and areas still having more room for improvement in the areas mentioned above, specifically by spreading the use of ICT which would help solving the regional problems.



Ms. Minako Saito from GM3 com. explaining the portable electrocardiography monitor

Background

Japan is a country which is currently tackling major issues such as declining birth rate, aging population, shortage of doctors, managing disasters and the declining regional economies. One of the methods for tackling such problems is to make maximum use of local ICT applications. Toward this end, there are applications already introduced or under feasibility test in Japan and it is expected that they would provide good showcases for other Asian countries. In many Asian countries, while the infrastructures for broadband communications through mobile communications and optical fiber communications are being built, there are still many issues that should be addressed, for example, regional disparities in medical services and education, and seemingly low awareness of the importance of information security.

Participants

One participant each from Bhutan, India, Maldives, Mongolia, Nepal, Niue, Pakistan, Thailand, Tonga and Vietnam attended the training course and they were awarded the training certificates from BHN president upon completion of the training course.



The participants attentively listening to the lecture

Lectures and Study Visits

The participants have learned actual examples of ICT utilization. Based on the knowledge acquired in the training course, they can now investigate implementing similar systems meeting the requirements of their countries. ICT applications are expected to contribute to overcoming the digital divide if they are introduced into rural areas, in such fields as; disaster management; tourism and transportation; environmental monitoring; medicine and welfare; agriculture forestry and fisheries.

Specific themes and model systems dealt with in the training were as follows:

- 1) Telemedicine, Remote Medical Care and Watching System
- 2) Machine (M2M) and Sensor Network Technology
- 3) Disaster Management System by utilizing ICT
- 4) Environment and Agriculture/Fisheries Monitoring using ICT



Study visit on e-Agriculture at Kurokawa Farm, Meiji Univ.

Result

The program was received by the participants as well-organized and eye-opening. The lectures below were especially highly praised by the participants:

- > ICT Utilization and Information Security Policies
- > Telemedicine and Disaster Risk Reduction
- > Study visit for observing telemedicine being actually practiced, where a pregnant woman was remotely monitored by a doctor

We hope the participants will bring back what they learned about ICT utilization in this program and make good use of it to improve social systems by better utilizing ICT.

Hachihei Kurematsu, Project Manager

2017.08.22 Tue 15:04/Development Support

Training of Trainers

State government staffs have had training course on Solar Electric System (SESs) since last October. By the middle of May this year, twelve state government staffs finished the course.

Certified as "Trainer" or coach by Kayin (Karen) state government and BHN, they are expected to train Solar Advisors, other government staffs, who will be in charge of maintaining the solar system. The Solar Advisors, coached by the trainers, would play a decisive role in maintaining and operating the solar systems, that are provided by BHN and the state government, in good condition.



Twelve state government staffs quolified as "Trainer of Solar Advisor"

Electrification in the KNU villages

The first stage of installing 1,570 SESs into the homes of villagers in the KNU areas has been completed. Following the installment, BHN had conducted monitoring work to evaluate the achievements of the project by listening to the voices of the villagers. Though the work was delayed due to the rainy season which gave us difficulty in reaching some villages under heavy rains.

As had been referred to in our last project report, most of the areas under KNU are still left without electricity. Enduring patiently during the civil war, villagers in the area are keenly longing for safety and electricity. BHN is now deliberating on another project, installing as many as 6,000 SESs to homes in the area in need

of electricity, along with furnishing computer systems to a local high school in the region.



Installation work in a village



A solar panel installed into a home of a KNU village



Clearly defined room of the house lightened by solar electricity after dark

By Hirofumi Aizawa, Project Manager

2018.06.08 Fri 18:05/Development Support

Installing 6,138 solar systems in the 65 villages in the KNU area

As we could get agreement with the EAG(Ethnic Armed Group=KNU) and the KSG(Kayin State Government) BHN started the works for the 2nd project of installing 6,138 solar systems in the 65 villages in the KNU areas from January this year.

The locations of the villages are spread in wide and deep country areas and the access to most of the villages are very difficult to transport materials in rainy season.

Hence, the contractors are concentrating their work force to accelerate the installation works to finish all the works before the rainy season staring late May.



Explaining villagers on our project



Explaining villagers on our project



Starting the installtionwork

Starting to discuss with EAG & KSG for the 3rd project

As recently as this February another EAGs signed the Ceasefire Agreement with the government of Myanmar and many dignities from inside & outside of the country attended to attest the signing ceremony.

It was also known that the people and leaders in these EAG villages were watching our activities next door to them and decided to make the ceasefire agreement understanding, after ceasefire agreement, that they will be also become beneficiaries of the projects such as we are doing in the KNU areas.

We are now starting to discuss with EAG & KSG for the 3rd plan of our project.

 $Hirofumi\:Aizawa-Project\:Manager$

2018.06.19 Tue 10:38/Development Support



Kwee Lay School Complex

In the middle of last May, as one part of the electrification project of the Kwee Lay High School located deep in the Karen National Union's (KNU) area, BHN completed the installation of computer systems with 12 PCs powered by the solar systems which was also provided by BHN.

Education Department of KNU was keenly wishing the elder level students to obtain computer literacy before starting their working career after finishing the high school. It took more than 1 year after the inception of the idea of computer curriculum at the high school and the school hosted a big Opening Event to enjoy the start of the new systems.



Maintenance Training



Opening Event of Computer Systems



Computer Lesson

Although the new school term is not started yet, the computer education course started as soon as the long awaited system is completed. 4 school lessons are given during the day time for students and, at night time, training course to teachers are also given for them to be able to prepare teaching materials.

The purchasing & installation works for the computer systems were all done by engineers of BHN as PCs are often stuck without machine trouble and need to call help (but not the matters of guarantee by suppliers) and BHN plans to visit the high school from time to time to consult with school teachers for the better operation of the system.

Hirofumi Aizawa – Project Manager

2018.09.19 Wed 10:33/Development Support

Continued rain falls in Myanmar caused floods in many districts of the country. In the State of Karen(Kayin) where BHN has been actively working, the river Thalwin(or Salween) flooded in the middle of the city of Hpa An(state capital) and many other locations of the state. The office of BHN scarcely escaped to get submerged under water but the activity had to be suspended for about 2 weeks.



Floods in front of BHN Office

Even after the flooding in the city is over, the access to most of our project sites were mostly impossible until around the end of August.

Almost all the villagers in the EAG(Ethnic Armed Group) areas were living without electricity since they were born and education to them how to use electricity (especially the specific character of solar power system) is critical for the sustainable use of the equipment. As the installation works of the solar systems were completed by the end of May, BHN started monitoring activities in all the villages in late August but frequently hampered by remaining after-effects of the floods.

Basically, monitoring activities are conducted to listen to the voices of recipients and to adopt their opinions for future activities.





Monitoring & reeducation under solar lamp

However, as mentioned above, for almost all the villagers, "Electricity at Home" is quite a new phenomenon in their life and repeated basic education on how to make efficient & economical use of electrical equipment under solar system is also an important mission for the monitoring teams.



Monitoring and Reparing

Along with our monitoring team, engineers of the construction companies and "Solar Supporters" (selected from the villagers and joined in the construction works of the solar systems) are accompanying with BHN team and whenever necessary, they could fix at once all the troubles of the solar equipment.



Girls dormitory Before Solar ILight



Girls Dormitory after Solar Light