

VIETNAM

BACH MAI HOSPITAL

Socialist Republic of Viet Nam
Collaboration Program with the Private
Sector for Disseminating Japanese
Technology for Audiometry and Diagnostic
Equipment in Viet Nam
Final Report
(Summary)

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1. **Background of the Project (including developmental issues in the targeted country)**

Continuing on the path of DOI MOI policy, which has adopted the roots of a market economy and an opening-up to the global scene, Vietnam has put much effort into structural reforms and strengthening its global competitiveness. However, the backlash against DOI MOI reforms such as the widening gap between the rich and the poor, the prevalence of corruption, the abuse of bureaucracy and environmental destruction are still rampant. The Vietnamese party/government is reinforcing the repudiation of corruption and the reforms of regulations and public servants. In 2013, Vietnam implemented confidence voting by the National Assembly, in which the members of the National Assembly approved the appointment of personnel for leaders of ministerial level or above, besides Constitutional amendments. This shows that Vietnam, while it remains a one-party country, is also adopting democratic elements.

The economy of Vietnam started to flourish in 1989 when the effects of DOI MOI began to kick in. In the years 1995 and 1996, the economic development rate was recorded as high as 9%. Despite a temporary slow-down in growth due to the Asian economic downturn, Vietnam had flourished during the period from 2000 to 2010 with an average economic growth rate of 7.26% due to the favorable increase in direct foreign investments. Since 2011, due to the macro-economic stabilization scheme, the growth rate has slowed down, yet Vietnam is still ranked in the top of the ASEAN (Association of South East Asian Nations) region in terms of its development rate (6.68% in 2015, 6.21% in 2016, 6.81% in 2017). Furthermore, Vietnam is also boosting its integration in the market-economy and global market by becoming an official member of the WTO (World Trade Organization) in January 2007. Thereafter, Vietnam has also signed FTAs/EPAs (Free Trade Agreement/Economic Partnership Agreement) with other nations and regions and taken part in the TPP (Trans Pacific Partnership). However, problems of premature investment environment, the shortcomings of state-owned enterprises along with the underdevelopment of domestic industries remain big issues.

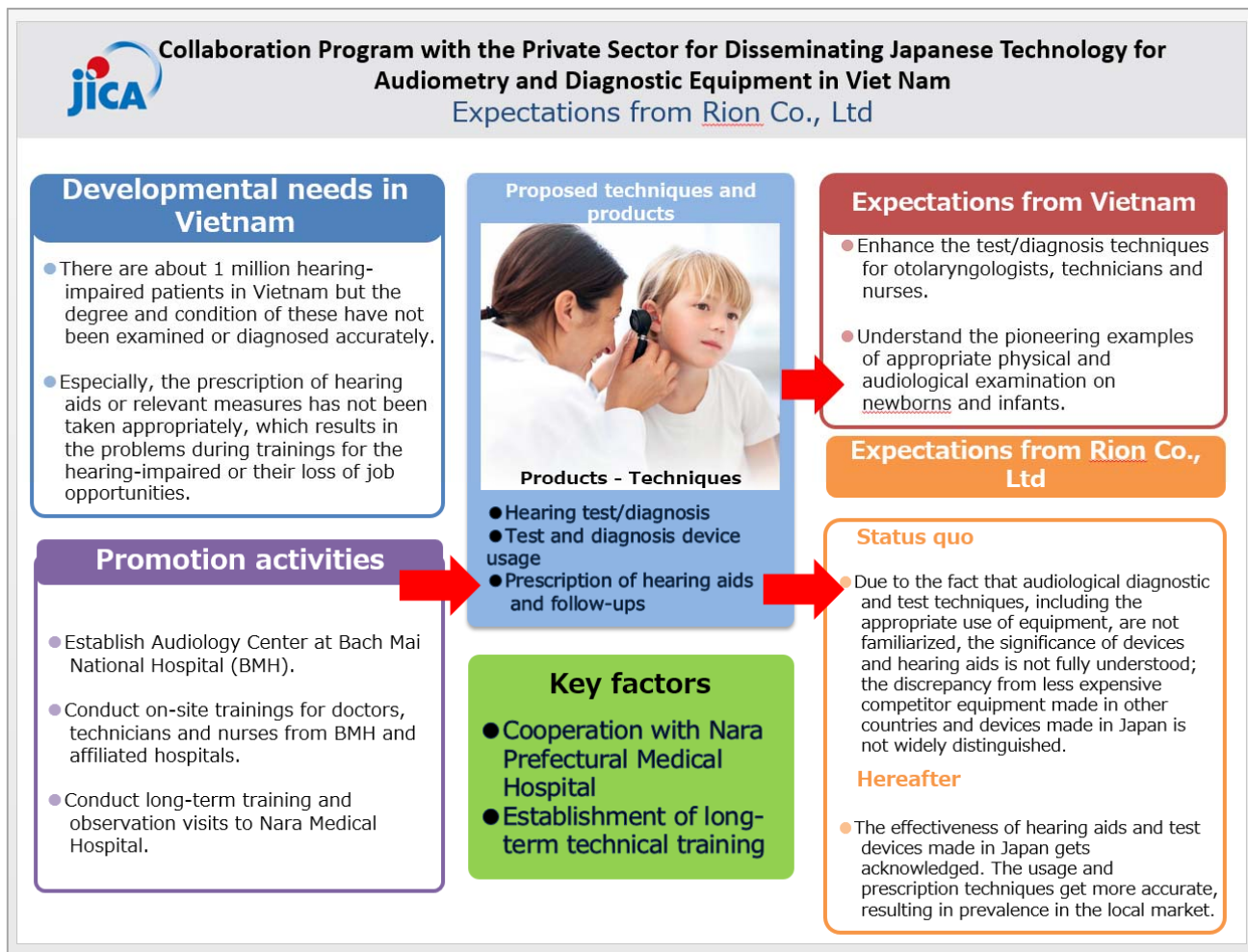
In such a social and economic scenario, Vietnam has around 1 million hearing-impaired patients (1.2% of the whole population) with 400,000 of young ages ranging between 5 to 17. None of the research up till now has verified this number. Although there have been supports in terms of training and medical practices to hearing-impaired patients, a proper hearing test or diagnosis device to identify audibly-challenged persons and hearing-impaired patients has yet widely spread, together with a shortage of specialized doctors and technicians; meanwhile, hearing testing has not been made mandatory during regular health check-ups. In general, a thorough hearing examination using equipment has not been targeted towards every citizen. This brings about a backlash where appropriate diagnosis, prescription and treatment are not carried out in time, leading to the lack of fair support to hearing-impaired patients in terms of training and medical practices.

2. Objectives of the Project

Most Vietnamese people have never taken a hearing test using an audiometer. The dissemination of test/diagnosis devices usage and advancement of hearing test technology can bring about early identification of a hearing-impaired patient. Establishing a scheme, such as providing hearing-aids at an early stage for newborns and infants helping the formation of communication and languages in them, is such an important task. Furthermore, the training for doctors to prescribe accurately during hearing tests and for technicians to do appropriate fitting of hearing aids can help minimize obstacles for hearing-impaired patients during education or job-hunting opportunities. The Quality of Life (QOL) of physically challenged people can be enhanced, contributing to the development of the economy and quality of life in Vietnam.

Considering the above background, based on a signed MOU (Memorandum of Understanding) with Bach Mai National Hospital (BMH) under the management of the Ministry of Health of Vietnam, Rion Co., Ltd (RION) has certified to supply hearing test and diagnosis equipment in the newly established Audiology Center in BMH. Furthermore, a training program for doctors and technicians specialized in audiology has been carried out in Vietnam in collaboration with Nara Medical University (NMU). A scheme to identify and prescribe hearing aids for hearing-impaired patients at an early stage together with follow-ups has also been devised. The ultimate goal of the program is to disseminate the benefits of using hearing test/diagnosis devices and hearing aids prescription techniques to affiliated provincial hospitals.

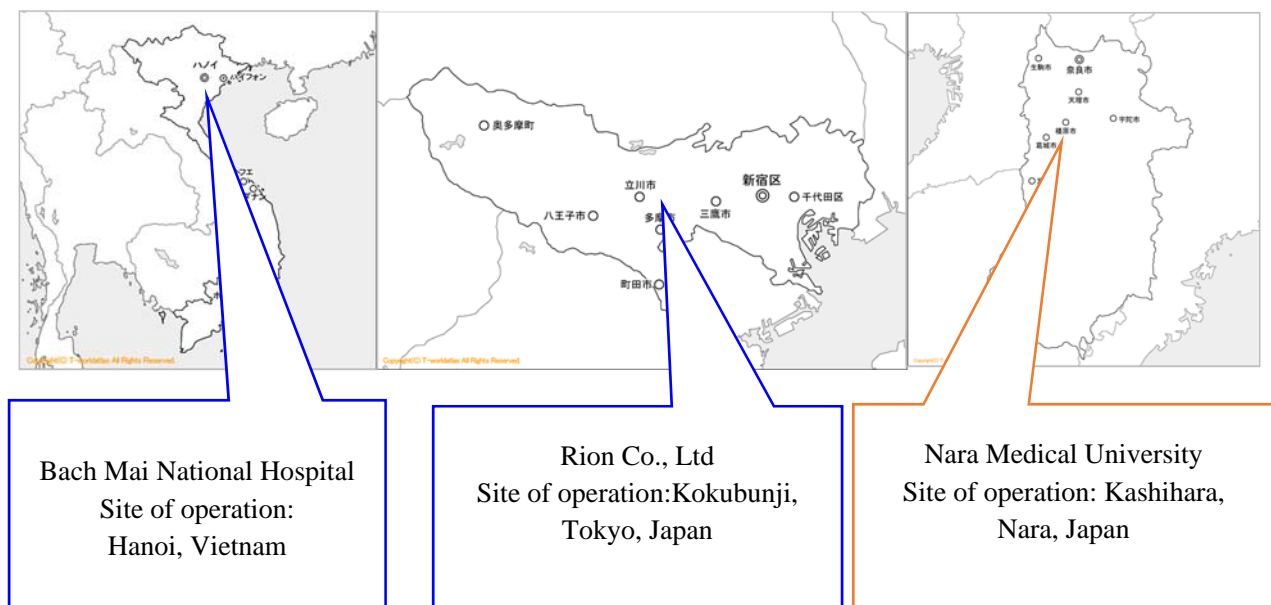
An Overview of the Project



3. Project Operation and its Outcomes

The below are activities conducted during the Project. The site of operation in Vietnam is Bach Mai Hospital in Hanoi, and the one in Japan is RION in Tokyo and Nara Medical University.

- ① Establish Japan Viet Nam Audiology Center.
- ② Dispatch a permanent technician to the Audiology Center to promote and conduct training for the usage of hearing test devices.
- ③ Conduct training for local doctors and present at the conference of Otolaryngology, carried out by NMU.
- ④ Conduct a long-term training program in Japan for doctors of BMH.
- ⑤ Accompany Vietnamese side to on-site health check-ups and instruct on the usage of devices and explain the advantages of RION's equipment.



- ① Outcomes of Japan Viet Nam Audiology Center
From 2014 to 2017, the number of patients in Otolaryngology department in BMH reached 110,000 patients annually on average. Compared to 2015 when the Audiology Center had not yet been established, the number of patients in 2016 and 2017 had increased significantly.
Furthermore, the first pilot room to support hearing aid fitting in Vietnam has welcomed more than 1000 patients during the two years of the project, which accredits the benefits of the project. This is resulted from the precise execution by BMH doctors abiding by the MOU agreement, which requires doctors to use equipment during check-ups.
- ② Dispatch a permanent technician to the Audiology Center to promote and conduct training for the usage of hearing test devices.

RION has provided the latest models of Audiometer, Impedance Audiometer, Eustachian Tube Function Testing Instrument and OAE Screener at no cost, which are significant equipment for the operation of the Audiology Center. A permanent technician has been dispatched to train BMH doctors and nurses (12 and 14 persons respectively) on the usage of devices during the course of two years. Japan-made test devices can be used with existing foreign-made products that have been used without incompatibility, whereas improvements such as language notation have become clear.



Audiology Center in BMH

③ Conduct training for local doctors and give a presentation at the conference of Otolaryngology, carried out by NMU.

- In July 2016 and July 2017, NMU had dispatched three doctors each time to conduct training and give presentations to the doctors, interns and nurses from hospitals of Northern Vietnam via workshops.

- The workshops in July 2016 in Vietnam were held in two days: July 22nd and 29th. On the 22nd, total of 82 doctors and interns from BMH, other Otolaryngology hospitals and BMH's affiliated provincial hospitals participated in the workshop. Despite two consecutive weeks of workshops, total of 46 doctors and interns from nearby hospitals participated in the workshop on the 29th.



Lecture by professor of NMU in BMH



Lecture by doctors of NMU and attendees in BMH

• The workshop in July 2017 in Vietnam had 71 doctors from nearby hospitals participating. On July 22nd, professors from NMU were invited to present at the conference of Otolaryngology of Northern Vietnam. There were around 250 otolaryngologists attending the conference, accounting for one-third of the otolaryngologists in Northern Vietnam and other regions, listening for the first time to a Japanese doctor. The head of the Otolaryngology Department of BMH has conveyed the meaningfulness of introducing pioneering medical infrastructure and otolaryngologists carried out by NMU to Vietnamese nationwide otolaryngologists via this Project.



Presentation by NMU professor at the conference of Northern Vietnam



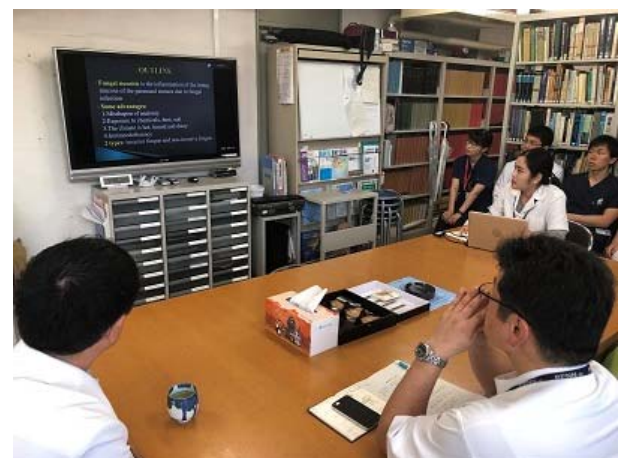
Lecture by doctors of NMU in BMH

④ Conduct a long-term training program in Japan for doctors of BMH.

In May 2016, the leaders of BMH joined an observation visit to Japan and in July 2016, after the activities in Vietnam done by NMU, RION, together with BMH. NMU had revised the plan to invite four doctors, each taking part in a 75-day long-term training at NMU. Besides, four nurses took part in the training courses. These training courses in Japan were wrapped up on May 12th, 2018.



Training of BMH doctor at NMU



Doctor of BMH have presentation at NMU

⑤ Accompany Vietnamese side to on-site health and explain the advantages of RION's RION had accompanied the National Institute of Occupational and Environmental Health (NIOEH), under the supervision of the health check-ups on June 10th (Fri) and 13th while providing RION's screening audiometer check-ups in two days.

check-ups and instruct on the usage of devices equipment in Viet Nam. of Occupational and Environmental Health Ministry of Health, to carry out company (Mon) at factories in Hung Yen Province, (AA-58). Around 200 factory workers had

NIOEH had been using audiometers made in Europe up till then. After training NIOEH officers on Rion's audiometer, they compared the effect of screening with two devices, European audiometer and RION product. The results were that RION's device had automatic testing functions and more simplified operation compared to the other, which helps to reduce the testing time. Sound insulation of RION's device compared with the European one was also highly evaluated.



Accompany with NIOEH health check-ups at factory in Hung Yen province

4. Summary of the Project

On July 25th, 2018, a debrief session took place at BMH in Hanoi to recapitulate the Project after two years of operation. The conference was held on the same occasion as the 45th anniversary of Japan-Viet Nam friendship with support from the Vietnam Ministry of Health, Japanese Embassy and JICA-Hanoi office.

The project, with the establishment of the Audiology Center at BMH with support from JICA and the sponsorship of hearing test devices from RION at the center, has achieved outcomes by carrying out diagnosis for hearing-impaired patients at an early stage, helping to adjust and supply hearing aids more accurately to patients. Furthermore, with the collaboration of NMU, the training for doctors and nurses has also contributed greatly to the development of human resources.

BMH has been the leading hospital due to the highest number of patients, giving them the position to guide other hospitals in Vietnam. BMH is also the one hospital to have been receiving ODA funded by the Japanese government and JICA for over 20 years. RION signed an MOU with BMH in October 2015

to cooperate on alleviation efforts towards hearing-impaired patients and established the Audiology Center in April 2016 at BMH as aid activities.

The director of BMH has expressed gratitude as “the project has contributed greatly to the life of Vietnamese” and requested the Japanese government and JICA to continue such contribution to treatment for the elderly with hearing difficulties.

The director of RION has conveyed that the debrief session was not just a wrap-up of a JICA project but a new start of another collaboration. Based on the MOU signed with the Deputy Minister of Health in the presence of State President Tran Dai Quang in May 2018, the director concluded the debrief session saying, “The new collaboration with BMH is a further development in the relationship between Japan and Vietnam.”

RION had also signed a MOU with Ho Chi Minh City Otolaryngology Hospital on October 2017. In May of the same year, during the visit of the State President Tran Dai Quang to Japan, RION had made an agreement to collaborate with BMH II (currently in construction) based on the fundament of experiences from this project and the deeply cooperative relationship with the Vietnam Ministry of Health and BMH with an aim to expand this model to other hospitals. Additionally, RION will continue to coordinate with NIOEH to conduct hearing tests at labor sites to boost activities contributing to the development of the Vietnamese medical field.



Commemoration Photo of Attendees in the JICA Project

5. Upcoming Business Activities

The Project has achieved several outcomes beyond primary expectations, which determines business progress from 2017 onwards. In October 2017, RION signed a MOU with Ho Chi Minh City

Otolaryngology Hospital. In May 2018, a new MOU had been signed with BMH regarding the establishment of an Audiology Center at BMH II, which is soon to be opened in Ha Nam Province.

In July 2018, RION approached some key hospitals in Central Vietnam with an aim to expand business in the region and ultimately spread to Vietnam nationwide.

There are two markets of diagnostic audiometer and screening audiometer in the business field of hearing test devices. In the market of diagnostic test devices, RION aims for a grounded, long-term business model which RION sets up audiology centers at key hospitals, providing testing infrastructure for Vietnamese doctors, who have been trained thoroughly to use test devices made in Japan without any troubles. In such a situation the number of private hospitals is increasing rapidly, it is a key to develop markets for the expansion of this business model in private hospitals. Meanwhile, in the market of screening audiometer, RION aims to explore market trends by popularizing hearing tests using devices during collaboration activities with NIOEH.

In the market of hearing aids, RION will continue the business model to supply hearing aids after carrying out fitting done under doctors' instructions and by specialized technicians and aim to expand this business by establishing audiology centers at key hospitals all over Vietnam. For actual sales of devices, RION plans to cooperate with local supply stores and increase the number of handling stores in the future.