

Republic of the Union of Myanmar

Ministry of Health and Yangon Eye Hospital

**Collaboration Program with
the Private Sector for Disseminating
Japanese Technology for Sustainable
Cataract Treatment in Myanmar
(Public Version)**

January 2017

ROHTO Pharmaceutical Co., Ltd.

General Incorporated Association

Japan Institute for Global Health

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JR(先)
17-010

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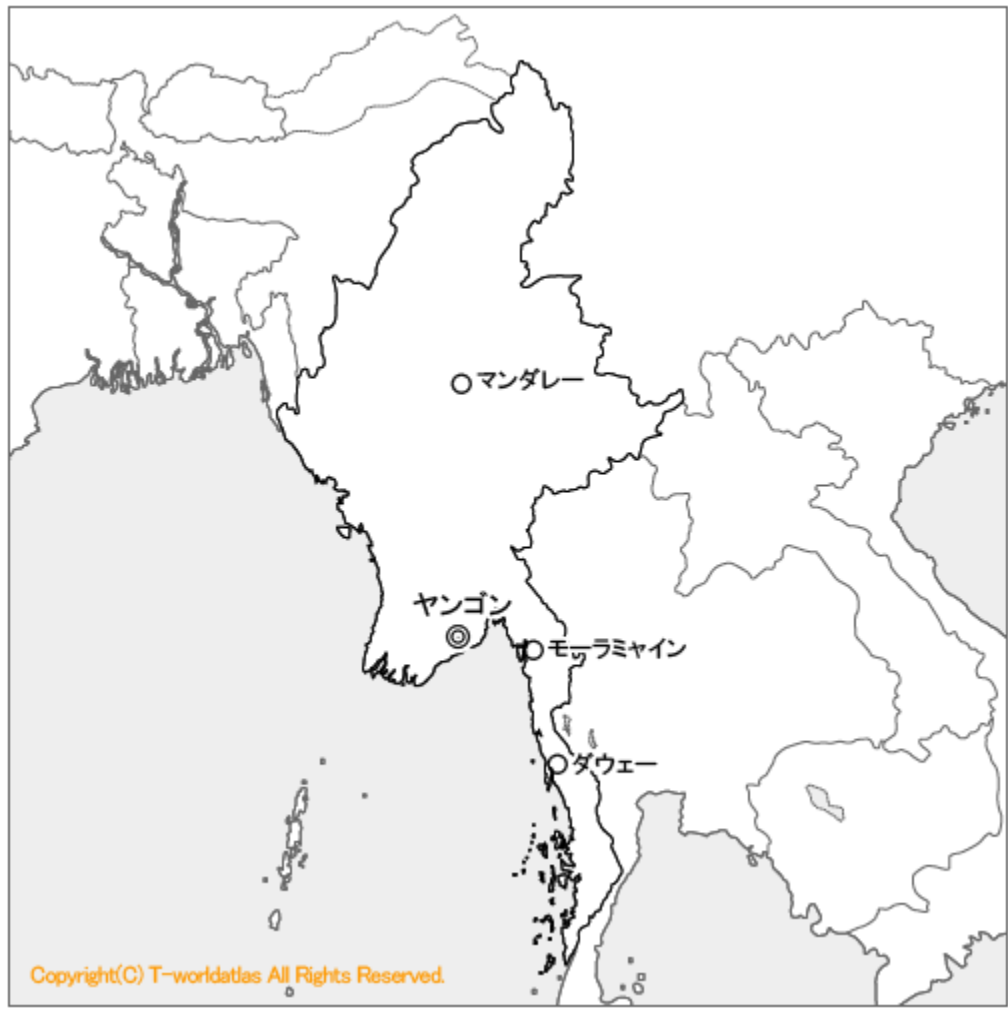
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Maps¹



¹ World map : <http://www.sekaichizu.jp/>

List of abbreviations

Abbreviation	Original word/term
IOL	Intraocular lens
MOH	Ministry of Health

SECTION 1: EXECUTIVE SUMMARY

1.1 Executive summary

1.1.1 Background

The number of cataract patients has been increasing along with the global increase of the aging population and patients with lifestyle diseases, especially in developing nations. However, amongst the developing nations, Myanmar has one of the highest blindness rates in the world at 0.52%, with around 70% of those being due to cataract. The working age population in Myanmar is especially at risk of contracting cataract, creating a great socioeconomic burden on the country: therefore, solving this issue is highly urgent.

Although cataract can be treated with a short operation using intraocular lens (IOL), around 200,000 patients (per year) are unable to treat their disease, due to the lack of doctors who are able to perform the surgery, medical facilities, and intraocular lens. On the other hand, we make up a great portion of all cataract surgeries performed around the world, and the level of medical technology and equipment we use for such surgeries is quite advanced. The ability to offer this Japanese style cataract treatment package using high quality foldable-IOLs adds a high value to medical care and gives a comparative advantage to our country.

The purpose of this program is to disseminate Japanese style cataract treatment methods at the Yangon Eye Hospital, a training center for ophthalmologists in Myanmar, and to contribute to the improvement of the quality of life of the citizens in Myanmar by providing a solution to treat cataract and prevent blindness.

1.1.2 Purpose and goals

This program aims to accomplish the following three goals in Myanmar by 2020.

- (1) A 20% increase in the usage of foldable-IOL
- (2) A yearly increase of 11,000 patients that are able to receive cataract treatment
- (3) An increase of 100 ophthalmologists that are knowledgeable about Japanese style cataract treatment

When we say 'foldable-IOL' here, we are referring to Rohto Pharmaceutical's "Foldable-IOL". A 'Japanese style cataract treatment' would require this particular IOL, therefore the current baseline for (1) and (2) mentioned above are both 0. The current number of patients who received cataract treatment in 2013 was 6,203; we therefore set the goal for (2) at around a two-fold increase from this number after discussing with the Yangon Eye Hospital. As for (3), 'knowledgeable' here means that the ophthalmologist has the ability to perform Japanese style cataract treatment by himself or herself.

To clarify, the treatment we aim to spread under this program is the cataract surgery that uses Foldable-IOL. In addition, the 'Japanese style cataract treatment package' we mention here refers not only to the surgery, but also the equipment used during such surgeries.

We hope that the accomplishment of the goals above will not only lead to further dissemination of Japanese style cataract treatment in Myanmar, but that it will also create a sustainable system to treat patients from all backgrounds, thus contribute to the improvement of social development and the increase in the quality of life for the people of Myanmar.◦

1.1.3 Contents

We performed the following in order to disseminate Japanese style cataract treatment, which we defined as the use of Foldable-IOL, the knowledge of equipment necessary to perform cataract surgery, and the ability and technology to treat and examine patients with cataract.

- ① Assessing the situation at hand regarding development in target fields and regions in this program
- ② Training in Japan
 - 1. Observation of cataract surgery technology
 - 2. Observation of cataract surgery technology
- ③ Activities in Myanmar
 - 1. Selection of ophthalmologists to train in Japan and specification of qualifications regarding the selection
 - 2. Training of cataract surgery technology (No medical practice will be performed by specialists involved in this program)
 - 3. Seminars for government related personnel for the dissemination of Japanese style cataract treatment
 - 4. Preparation and research to establish an eye clinic
- ④ Examination and evaluation of the directions for business development after the program
 - 1. Creating an overview the business (Goals, scheme for manufacturing and marketing, budget procurement, scheme for developing human resources, finding local partners, etc.)
 - 2. Creating a schedule commercialization and business development
- ⑤ Identifying the effects of business development
 - 1. Identifying those that will benefit from the business
 - 2. Expected outcomes from development
- ⑤ Examining the possibilities of collaborating with ODA related projects in Myanmar
 - 1. Identifying the necessities for a combined project
 - 2. Identifying the contents of the combined project as well as the expected outcomes

Schedule to perform the activities mentioned above (the actual dates each event took place are mentioned below)

- ① Assessing the situation at hand regarding development in target fields and regions in this program: 17 April - 23 May 2015
- ② Training in Japan: 14 - 18 December 2015

- ③ Training in Japan: 24 - 30 May 2015, 16 - 20 November 2015, 14 - 17 November 2016
- ④ Examination and evaluation of the directions for business development after the program: 24 May 2015 - 8 December 2016
- ⑤ Identifying the effects of business development: 24 May 2015 - 17 November 2016
- ⑥ Examining the possibilities of collaborating with ODA related projects in Myanmar: 24 May 2015 - 17 November 2016

1.1.4 Outcomes and accomplishments

Through this program, we have been able to examine the issues that the ophthalmology and healthcare sector in Myanmar face, and assess the market needs for hospitals and clinics that specialize in ophthalmology. In addition, we also were able to discover and confirm the demands for cataract surgery as well as vitrectomy^{*1} and training of personnel to perform such surgeries.

The connections we have strengthened with ophthalmologists in Myanmar and at the Yangon Eye Hospital is thought to be greatly significant, especially as Rohto Pharmaceutical delves into its new project to establish an ophthalmology clinic in the country. Furthermore, this program allowed for an increased understanding in Rohto Pharmaceutical's business in the field of ophthalmology (it has mainly been known as a company that produces over-the-counter eye drops and makeup), in addition to an increase in use of Rohto's IOL.

Rohto Pharmaceutical has included the Foldable-IOLs in their product lineup; with its high quality and low cost, we consider the Foldable-IOL to be more favorable than IOLs sold in Western countries.

^{*1} Vitrectomy...There is a clear gel-like substance within the eyeball called the vitreous body. This substance can lose its opacity due to inflammations or internal bleeding, or may pull at the retina and cause retinal detachment, all of which have the risk of causing numerous eye disorders. In order to remove blood or clouding in the vitreous gel, tiny instruments are inserted through three small openings are made in the white of the eye. This process is referred to as vitrectomy, and is used to treat eye disorders such as proliferative retinopathy and retinal detachment.

Reference : Tane Memorial Eye Hospital Homepage - <http://www.tanemem.com/chiryo/shoushitai/index.html> (Accessed 12 December 2016)

1.1.5 Current prospects for business development

We are planning to establish an eye clinic in Mandalay by collaborating with Mandalay Hospital. We are currently moving forward with the preparations and aim to open the clinic in April 2017.

1.1.6 Evidence confirming prospects for business development

Through this program, we discovered that there is a great demand for highly advanced vitreous body surgery in addition to the demands for cataract surgery in Mandalay. In addition, we have found that, as in Yangon, there is a significant number of patients in Mandalay who seek better care and treatment from private hospitals overseas in countries such as Thailand.

By collaborating with Mandalay Hospital, we will not only be able to secure a place for this business, but also overcome the issue of license acquisition to provide medical treatment. Although it is costly to set up a clinic and implement Japanese style treatment for cataract and the vitreous body, we found that there is a high

demand for such high-quality treatment, enough to cover the initial investment costs for renovation and importation of medical equipment.

1.1.7 Challenges and future directions

The provision of medical equipment to perform vitrectomy alongside cataract surgeries will increase the cost we initially expected to invest in this business. We have yet to procure the equipment and keeping the initial costs to start this business by finding good used materials is an upcoming issue we will need to address. We hope to solve this with the help of Dr. Hattori who has connections with many eye hospitals and clinics that may be able to provide used equipment that is still in good condition.

As for human resources, finding a permanent ophthalmologist is another task to be addressed. Ms. Sandar Shwe from Rhoto-Mentholatum (Myanmar) Co., Ltd. will continue to search by contacting potential candidates currently located in Singapore and Malaysia.

1.1.8 Possibilities of collaborating with ODA projects

In order for Rohto Pharmaceutical to establish an eye clinic in Mandalay, and to strengthen ties with ophthalmologists in Myanmar in addition to highly skilled professionals such as Dr. Hattori and Dr. Juneja, we are considering to provide training opportunities in collaboration with the Japan International Cooperation Agency (JICA) and the Government of Japan.

Dr. Juneja currently belongs to Sharp Sight, a group of Eye Hospitals in India that Rohto Pharmaceutical is working with to establish the clinic in Mandalay. Dr. Juneja has previously worked at Aravind Eye Hospital, one of the largest hospitals in the world that specializes in cataract and eradicating avoidable blindness, and is highly qualified in the administration of both cataract surgery and vitrectomy.

SECTION 2: BACKGROUND INFORMATION

2.1 Background information regarding this program

The number of cataract patients has been increasing along with the global increase of the aging population and patients with lifestyle diseases, especially in developing nations. However, amongst the developing nations, Myanmar has one of the highest blindness rates in the world at 0.52%, with around 70% of those being due to cataract. The working age population in Myanmar is especially at risk of contracting cataract, creating a great socioeconomic burden on the country: therefore, solving this issue is highly urgent.

Although cataract can be treated with a short operation using intraocular lens (IOL), around 200,000 patients (per year) are unable to treat their disease, due to the lack of doctors who are able to perform the surgery, medical facilities, and intraocular lens. On the other hand, we make up a great portion of all cataract surgeries performed around the world, and the level of medical technology and equipment we use for such surgeries is quite advanced. The ability to offer this Japanese style cataract treatment package using high quality foldable-IOL adds a high value to medical care and gives a comparative advantage to our country.

The purpose of this program is to disseminate Japanese style cataract treatment methods at the Yangon Eye Hospital, a training center for ophthalmologists in Myanmar, and to contribute to the improvement of the quality of life of the citizens in Myanmar by providing a solution to treat cataract and prevent blindness.

Rohto Pharmaceutical is a leading company in the field of eyecare; it has a long history of manufacturing and providing eye drops, and has contributed to eye treatments in Asian countries such as Myanmar through free examinations and IOL donations. Rohto aims to further increase the sale of their IOLs in Myanmar while also steadily entering the healthcare market in the country through the establishment of a Japanese style eye clinic.

Furthermore, they aim to contribute to the reduction of blindness rates in Myanmar through the provision of IOLs alongside free treatment and training towards ophthalmologists in Myanmar, and the establishment of a Japanese style eye clinic that would be able to offer high quality treatment for cataract amongst other eye disorders.

2.1.1 General Information regarding Myanmar

The Republic of the Union of Myanmar (referred to as Myanmar hereinafter) is a country located in the southern part of the Indochinese Peninsula in Southeast Asia. It is roughly 1.8 times the size of Japan (680,000 km²) and has around 5.148million residents.² The country was called Burma during their independence (1948-1989). Myanmar is located along the Bay of Bengal and the Andaman Sea, and shares borders with Thailand, Laos, China and Bangladesh. Its capital city is Naypyidaw and its official language is Burmese. The population is made up of numerous ethnic groups, the largest of which is Bamar (70%).

The country is currently led by President Htin Kyaw who was inaugurated in March 2016. The country runs on a bicameral legislative system, with an upper and lower house. There was a great shift in politics with the 2015 general election, in which the National League for Democracy (NLD) led by Aung San Suu Kyi won a supermajority in both houses of the Assembly (around 60% of all seats), leading to the introduction of a new cabinet led by Htin Kyaw since March 30th, 2016. Aung San Suu Kyi was selected as Foreign Minister and State Counsellor. As for its foreign policy, Myanmar has a history of independence and aggressive diplomatic policy, and has been a member of Association of Southeast Asian Nations (ASEAN) since July 1997. Myanmar's key industry is its agriculture, and its GDP per capita is 1,292 US Dollars, a rate that is

² Japan External Trade Organization(JETRO) "Myanmar - General Condition"
https://www.jetro.go.jp/world/asia/mm/basic_01.html (Accessed 11 January 2017)

relatively low compared to its Asian counterparts. Despite this, it has a positive economic growth rate of 8.25%.³

Japan's economic cooperation towards Myanmar began in 1954. However, with the military intrusion in the nation's politics, Japan halted its support towards Myanmar after 1988. Japan restarted its contributions in 1995, yet ended large-scale projects in 2003, after Aung San Suu Kyi's house arrest. The directions for economic cooperation changed in April 2012 after the emergence of new political parties involved in the democratization of the country, and Japan began has provided support including yen loans on a greater scale since then.

After the NLD won supermajority during the general election held in November 2015, Japan affirmed of its decision to support the development of Myanmar, especially in the following fields; (1) Improvement of peoples' livelihoods, which includes assistance for ethnic minorities and those living in poverty, as well as agricultural and rural development, (2) Assistance such as the promotion of democracy in order to build capacity and develop sustainable systems to improve the nation's economy and society, and (3) Building and development of infrastructure and related systems that are necessary for sustainable economic development.

2.1.2 Development issues in the field of healthcare

As for issues in the development of Myanmar's healthcare sector, the population suffers from both non-communicable and communicable diseases (CD), as seen the leading causes of death within the country (see chart 1 below). Although the number of deaths from tuberculosis and diarrhea has decreased since the 2000s, there has been a rise in deaths from non-communicable diseases (NCD), showing a shift from the typical disease structure seen in developing nations to that of developed nations in which the leading causes of death are from lifestyle related diseases. However, if we compare this to the top disease burdens in the country, it is noticeable that there is a dual structure of NCDs and CDs, with poor maternal and child health/nutrition and the three leading infectious diseases (HIV/AIDS, tuberculosis and malaria) causing the greatest burden in the country.

Chart 1. Top causes of death in Myanmar (2012)

	Cause	Number of deaths (thousand)
1	Stroke	56.2
2	Lower respiratory infectious disease	40.5
3	Ischemic heart disease	30.0
4	Tuberculosis	25.5
5	Chronic obstructive pulmonary disease	19.2
6	Cirrhosis of the liver	15.5
7	Diabetes	14.4
8	Asthma	13.3
9	Diarrhoeal diseases	11.4
10	Other heart diseases	2.3

Chart 2. Top disease burdens in Myanmar (2012)

	Name of disease
1	Cardiovascular diseases and diabetes
2	Other non-communicable diseases
3	Poor maternal and child health/nutrition
4	Other diseases
5	HIV/AIDS, tuberculosis, and malaria
6	Accidents
7	Neuropsychiatric diseases
8	Acute respiratory diseases
9	Cancer
10	Chronic respiratory diseases

As for eye disorders, while the number of blindness caused by trachoma is decreasing in Myanmar, there has been a great rise in cataract from causes such as the increase of ultraviolet radiation, and the rise of patients with lifestyle diseases such as diabetes. The nation's blindness rate is currently at 0.52%, with 70% of those being caused by cataract. Although cataract tends to be seen amongst the elderly population in developed nations, the average age that cataract develops amongst patients in Myanmar is 45, and thus the average cataract patient is still in his or her productive years, at around 50. The majority of patients tend to visit hospitals in late stages of cataract, therefore at a high risk of going blind. Despite the fact that cataract can be treated in a short amount of time with the insertion of IOLs, there is a shortage of medical personnel, institutions and equipment to provide this, causing around 200,000 patients to suffer without treatment. Furthermore, despite recent efforts such as mobile medical examinations, with 70% of the country belonging to the rural sector, the nation has been late in developing an environment fit for the examination and treatment of cataract.³

In addition to the lack of medical institutions and personnel, the lack of high quality healthcare services is also noticeable. Myanmar suffers from a great lack of hospitals, with only 9 beds per 10,000 people, despite the fact that the number of hospitals doubled to 1,010 institutions since that of 1988. With the current condition, Myanmar has established 87 private hospitals, 16 advanced treatment hospitals, 2,891 clinics and 192 specialized clinics. As for medical personnel, the country suffers from a lack of doctors and nurses (29,832 doctors and 28,254 nurses in 2012), low salaries and discrepancies between urbanized and rural areas. If we look at Yangon Eye Hospital, there are many doctors who work at the hospital during the day (until 4pm), before going onto their second job at private hospitals or clinics. In order to solve the issue of the lack of personnel, the government of Myanmar has been increasing its number of educational institutions and educators, as well as revising its qualifications for examination. Such efforts have shown positive results. Medical fees at public medical institutions have generally been free, but there has been an introduction of fees for medicine as well as co-payment systems. The amount that the patient covers in the co-payment system has been increasing yearly, with the normalization of payment for tests or surgery in addition to payment for examinations and hospital admissions. Medicine can be bought both within and outside the hospital, generally without prescriptions (unless they are narcotics or psychotropic drugs). However, with the lack and deterioration of medical services offered at public medical institutions, many upper-class citizens have taken to travelling to neighboring countries in order to receive better care. The fees at private institutions differ depending on the hospital or clinic, urgency, and/or quality of the doctor. Although private institutions generally only offer fee-based care, some places may offer free services once a week for those living in poverty.

2.2 Technical skills and the opportunities offered through this program

2.2.1 Details of the technical skills offered through this program

The technical skills offered through this program is the Japanese style cataract treatment.

Despite the fact that cataract can be treated in a short amount of time with the insertion of IOLs, there are around 200,000 patients that suffer in Myanmar without treatment, due to the shortage of medical personnel, institutions and equipment. However, on the other hand, Japan has one of the greatest achievements in the world in regards to treating cataract, and the level of technology and equipment available in the country is very high. The Japanese style cataract treatment package that uses high quality and foldable-IOLs adds a high value to medical care and gives a comparative advantage to our country. As mentioned before, the 'Japanese

³*Japanese-style cataract treatment package project (February 2014) Consortium for Japanese-style cataract treatment*
http://www.meti.go.jp/policy/mono_info_service/healthcare/kokusaika/downloadfiles/fy25kobetsu/outbound_16.pdf
(Accessed 11 January 2017)

style cataract treatment package' we mention here refers not only to the surgery, but also the equipment used during such surgeries.

Rohto Pharmaceutical has manufactures and ships IOLs from their factory in Indonesia, and begun selling IOLs in Myanmar in November 2015. Rohto's IOLs are of high quality as those manufactured by their Western competitors, yet are offered at a more affordable price in comparison. In addition, Rohto has also offered free surgeries and donations of IOLs as part of their corporate projects to "create shared values" (CSV).

This program is aimed to disseminate high quality Japanese style cataract treatment in Myanmar, and to contribute to the improvement of the quality of life in the country by treating avoidable blindness.

Up until now, the Yangon Eye Hospital has been using PMMA-IOLs⁴ from the following manufacturers (listed in order of usage); Alcon (25 US dollars) from the U.S.A., Rohto (15 US dollars) from Japan, Aurolab (7 US dollars) from India. As for Foldable-IOLs⁵, the hospital has been using IOLs from the following manufacturers (also listed in order of usage); AlconIQ (140 US dollars) and AlconSA (105 US dollars) from the U.S.A., Zeiss (120 US dollars) from Germany, and Rayner (60 US dollars) from the U.K.. Rohto Pharmaceutical had only sold PMMA-IOLs to the Yangon Eye Hospital until the launch of this program, but now has introduced their Foldable-IOLs as well. PMMA-IOLs used in public hospitals are made by Alcon from the U.S.A., and AlconIQ (U.S.A.) or Zeuss (Germany) for Foldable-IOLs (Refer to chart 3 for a price comparison) ⁸.

Chart 3. Price comparison with competing manufacturers*

Type	Manufacturer/ Product name	Country	Price (\$)	Price (Kyat)	Price (¥)
PMMA-IOL	Alcon Monoflex	U.S.A.	25	21,354	2050
	Acuro Lab	India	7	5,979	574
Foldable-IOL	Alcon IQ	U.K.	140	119,583	11,480
	Alcon SA	U.K.	105	89,688	8,610
	Zeiss	Germany	120	102,500	9,840
	Rayner	U.K.	60	51,250	4,920

*Based on the official expenditure rate of April 2014 (1 US dollar = 82 Japanese yen 1,000 Kyat=Japanese yen)⁶

2.2.2 Opportunities provided through this program

This program aims to accomplish the following three goals in Myanmar by 2020.

- (1) A 20% increase in the usage of foldable-IOL
- (2) A yearly increase of 11,000 patients that are able to receive cataract treatment
- (3) An increase of 100 ophthalmologists that are knowledgeable about Japanese style cataract treatment

⁴ Hard IOL using PMMA (Polymethylmethacrylate), material formally used for hard contact lens

⁵ Soft, foldable-IOL used during small incising operations by phacoemulsification and aspirations (PEA)

⁶Ministry of Finance https://www.mof.go.jp/about_mof/act/kokuji_tsuutatsu/kokuji/KO-20130206-0029-14.htm (Accessed 11 January 2017)

When we say 'foldable IOL' here, we are referring to ROHTO Pharmaceutical's "Foldable-IOL". A 'Japanese style cataract treatment' would require this particular IOL, therefore the current baseline for (1) and (2) mentioned above are both 0. The current number of patients who received cataract treatment in 2013 was 6,203; we therefore set the goal for (2) at around a two-fold increase from this number after discussing with the Yangon Eye Hospital. As for (3), 'knowledgeable' here means that the ophthalmologist has the ability to perform Japanese style cataract treatment by himself or herself.

We hope that the accomplishment of the goals above will not only lead to further dissemination of Japanese style cataract treatment in Myanmar, but that it will also create a sustainable system to treat patients from all backgrounds, thus contribute to the improvement of social development and the increase in the quality of life for the people of Myanmar.

SECTION 3. PROGRAM OVERVIEW

3.1 Purpose and goals

3.1.1 Purpose

The purpose of this program is to create a good relationship between Rohto Pharmaceutical and the Yangon Eye Hospital, by increasing understanding of Rohto Pharmaceutical's IOL business as well as Rohto's aim to enter the healthcare market in Myanmar with the launch of the Japanese style eye clinic in the country. In addition, we aim to increase ophthalmologists who can perform surgeries using Rohto's IOLs, by having them use IOLs donated to the Yangon Eye Hospital by Rohto.

Furthermore, this program is conducted with the hopes to create a foundation for business after the program is complete, which we will aim to accomplish through research and evaluation of eye hospitals, clinics, and the ophthalmology market in Myanmar.

3.1.2 Program goals (in regards to the development of cities and regions in Myanmar)

Through training provided by Dr. Hattori in Myanmar, and numerous ophthalmologists in Japan, we will contribute to the enhancement of knowledge, skills, and abilities of ophthalmologists in Myanmar.

In addition, we also aim to disseminate and popularize Japanese style cataract treatment in Myanmar by introducing the technology at Yangon Eye University, the largest hospital involved in treatment and education in the field of ophthalmology in Myanmar.

3.1.3 Program goals (in regards to business development)

In regards to future business development, we aim to create a foundation for new business opportunities such as the increase in sales for Rohto's IOLs and the establishment of an eye clinic in Myanmar. The success of such would ensure a stable entrance into the healthcare service sector in Myanmar for Rohto.

We aim to make the eye clinic profitable by its third year.

3.2 Contents

3.2.1 Schedule

• In Myanmar

- ① 1st session of overseas activities (Market research, preparation for training by Dr. Hattori):
24 - 30 May, 2015
- ② 2nd session of overseas activities (Training conducted by Dr. Hattori):
16 - 20 November, 2015
- ③ 3rd session of overseas activities (Preparation for post-program business development):
14-17 November, 2016

• In Japan

- ① Research and evaluation of issues in development of the regions and fields concerned: 17 April - 23 May, 2015
- ② Investigation of possibilities for post- program business development: 24 May, 2015 - 8 December, 2016
- ③ Identification of the expected outcomes of post- program business development: 24 May, 2015 - 17 November, 2016
- ④ Investigation of collaborative opportunities with local ODA projects: 24 May, 2015 - 17 November, 2016

• Training in Japan

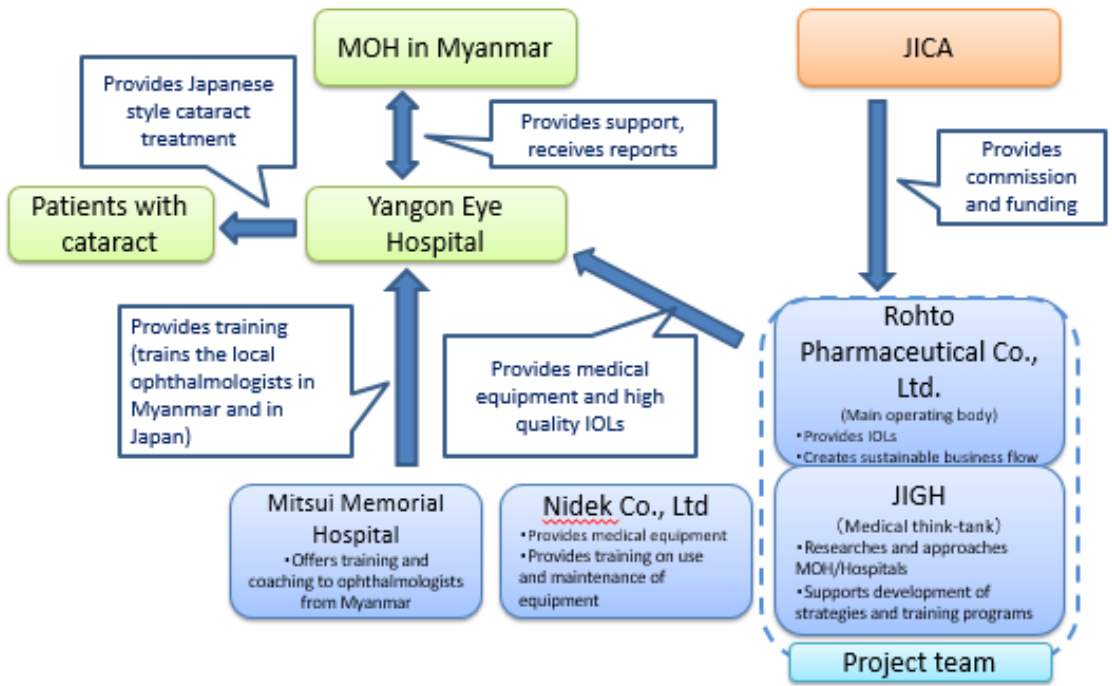
- ① Training sessions (The University of Tokyo Hospital, Kitasato University Hospital, and Nidek Co., Ltd) : 14-18 December, 2015

3.2.2 Organizational structure

The organizational structure for this program is as follows:



Organizational structure



3.2.3 Content details

Char 4. Program details and goals

#	Task	Schedule				Content	Current status (at the end of this program)
		Session 1 (Myanmar)	Session 2 (Myanmar)	Session 3 (Japan)	Session 4 (Myanmar)		
1	Evaluation of market and local needs					<ul style="list-style-type: none"> Confirm that there are needs in the local market through research and interviews conducted at national and private eye hospitals during activities held in Myanmar 	Completed
2	Evaluation of market and local needs					<ul style="list-style-type: none"> To gain approval and support from Yangon Eye Hospital and Mandalay Hospital to establish an eye clinic in Myanmar 	<ul style="list-style-type: none"> We will continuously provide training for ophthalmologists in Myanmar, for there is a demand at National medical institution for training sessions from specialists such as Dr. Hattori
3	Receive approval for alliance from local partners				<ul style="list-style-type: none"> Receive confirmation from Mandalay Hospital for their collaboration 	<ul style="list-style-type: none"> We will confirm final details in order to conclude the contract 	
4	Receive approval to hire medical doctors from foreign countries for the eye clinic				<ul style="list-style-type: none"> Receiving approval will be possible with the support of Mandalay Hospital 	<ul style="list-style-type: none"> We are progressing forward with preparations to receive approval 	
5	Increase the skills and technology of local ophthalmologists				<ul style="list-style-type: none"> We have conducted two training sessions, one in Myanmar and one in Japan. Although both sessions were successful, we must plan long-term strategies for continuous improvements 	<ul style="list-style-type: none"> Since this is not something that can be achieved in a short period of time, we aim to continuously provide training for local ophthalmologists with the cooperation of Dr. Hattori 	
6	Secure profitability				<ul style="list-style-type: none"> With the current local demands for eye surgeries (for cataract and vitrectomy), the clinic will be profitable if we can secure highly skilled ophthalmologists and create an efficient operating system. However, the initial investment to launch the clinic may be more than what we initially expected 	<ul style="list-style-type: none"> We aim to keep the initial costs as low as possible by collaborating with Dr. Hattori to procure high quality used medical equipment, which we would be able to purchase at a cheaper price 	

Through this program, we have donated the following medical equipment to the Yangon Eye Hospital. The surgical system listed below is called Phaco, and is used in advanced surgeries to treat cataract (surgeries using Phaco make smaller incisions compared to previous methods, lessening the burden on the patient). Such system will contribute to improving the technical skills of ophthalmologists in Myanmar. We chose to donate a model from Nidek Co., Ltd, for not only is it one of the top manufacturers of ophthalmological equipment in Japan, but they also have agencies in Myanmar, which would aid the import and maintenance of the system. In addition, they would also be able to provide support during training programs for local ophthalmologists.

Chart 2. List of equipment

	Medical Equipment	Model Number	Amount	Date of Delivery	Place Delivered
1	Ophthalmic Surgical System for phacoemulsification	CV9000R	1 System	12 November 2015	Yangon Eye Hospital
2	Foldable-IOL	RF-22 / 31 PL	100 lens	15 November 2016	Yangon Eye Hospital
3	Foldable-IOL	RAY-61 PL	100 lens	15 November 2016	Yangon Eye Hospital
4	PMMA-IOL	RP-12	50 lens	15 November 2016	Yangon Eye Hospital

SECTION 4: PROGRAM RESULTS

4.1 Training in Japan

4.1.1 Overview

During the training session we held in Japan, we provided multiple opportunities for ophthalmologists from Myanmar to learn Japanese style cataract treatment, which we consider as not only quick, but also efficient, high in technology as well as patient service (in areas such as informed consent, administrative procedures etc.).

The ophthalmologists took part in the following four activities:

- ① Learning sessions and field trips to learn about comprehensive cataract treatment, advanced cataract surgery and vitrectomy from Japanese ophthalmologists at the University of Tokyo Hospital and Kitasato University Hospital
- ② Exchanging and sharing opinions with Japanese ophthalmologists
- ③ Participate in a training program for cataract surgery at Nidek's wet laboratory
- ④ Increase understanding of eye-care and management of eye clinics in Japan (e.g. the examination and test flow for patients, reserving examinations)

4.1.2 Contents

The training session in Japan was conducted during 14 - 18 December, 2015. The session consisted of 2 parts; (1) field trips to observe the skills and technology used for cataract surgery, and (2) training on the maintenance of related equipment. 7 ophthalmologists (listed below) participated, all of who were chosen for their potential in contributing to the field of ophthalmology, as well as from the fact that they had prior experience in using Phaco. Selection of the ophthalmologists was conducted under the advice and direction of Prof. Tin Win from the Yangon Eye Hospital and the local Ministry of Health.

- ① Dr. Marlar Kyaing, Ophthalmologist, Yangon Eye Hospital, Yangon
- ② Dr. Zin Mar Myint, Ophthalmologist, East Yangon Hospital, Yangon
- ③ Dr. Ni Ni Hlaing, Ophthalmologist, Yangon Eye Hospital, Yangon
- ④ Dr. Khaing Nwe Ni, Staff Officer, Trachoma and Blindness Prevention Program
- ⑤ Dr. Mya Wut Yee Soe, Assistant Lecturer (Ophthalmology), University of Medicine (1), Yangon
- ⑥ Dr. Aye Win Myint Phyo, Assistant Lecturer (Ophthalmology), University of Medicine (1), Yangon
- ⑦ Dr. Aye Kyawt Kyawt Lat, Assistant Medical Officer, (Ophthalmology), Trachoma and Blindness Prevention Program, Kyak Pa Daung Township

On the first day of training (14 December 2015), the participants gathered at Rohto Pharmaceutical's Tokyo Office for an orientation and a lecture on Japanese eye-care and ongoing projects in treating cataract. The following days (15, 17, 18 December 2015) were dedicated to field trips to the University of Tokyo Hospital and Kitasato University Hospital at which the participants observed high level cataract treatment in

addition to other eye surgeries. They also deepened their understanding about comprehensive cataract treatment and the management of Japanese eye hospitals by exchanging ideas and opinions with Japanese ophthalmologists. They also had a day (16 December 2015) to learn about medical equipment for ophthalmologists and underwent surgery training at Nidek's wet laboratory.

4.1.3 Summary of results and outcomes

The training session in Japan contributed to the development of skills and abilities of ophthalmologists in Myanmar, by introducing and teaching them methods to conduct high quality Japanese style cataract treatment.

Two notable points from the training session were the high evaluation results from the participants regarding the training session (see attachment 1) and the extent that the participants were able to deepen their knowledge about Japan and Rohto Pharmaceutical. Despite such, there were also comments such as "the session was too short", "I wanted to learn more about eye disorders other than cataract (vitreoretinal disorders, glaucoma and corneal disorders)", and "I would have liked to actually take part in the testing and surgery, not simply observe" (see attachment 1). Although this session was held with a focus on cataract, it would not have been hard to include opportunities for participants to learn about other eye disorders. However, it would have been unrealistic to include opportunities for the participants to partake in surgeries or tests due to the requirements of Article 17 of the Medical Practitioners' Act, such as having a certain number of years as a medical professional. In addition, such would also require an approval from the Ministry of Health, Labour and Welfare, which would have taken a lengthy amount of time. As for the length of training, if the Government of Myanmar were to consider implementing a government-sponsored scholarship system for doctors to practice medicine abroad, such as the doctor from Thailand at Kitasato University Hospital that the participants met, then perhaps participants would be able to train for longer periods of time.

The participants who visited Japan were enthusiastic and were wonderful students. They were eager and curious, and would actively ask questions to their educators; those who interacted with the participants gave high praise for their attitudes towards learning. From the participants' evaluation of the training as well as their heavy interaction with the ophthalmologists and specialists here, it could be said that their knowledge regarding the topic at hand deepened greatly during their stay in Japan.

News of this training session was released on Rohto Pharmaceutical's information magazine and their website, as well as on 'gooddo', a free website dedicated to supporting NPOs. It will also be mentioned as part of Rohto's business activities in the future. The session served as a model case for future CSV related activities that Rohto hopes to continuously conduct outside Myanmar. It also helped create business relationships with potential partners, for all 7 participants mentioned that they would be interested in working with Rohto, if Rohto were to open an eye clinic in Myanmar.

4.2 Activities in Myanmar

4.2.1 Overview

Activities in Myanmar were conducted in three parts (1st session: 24 - 30 May, 2015, 2nd session: 16 - 20 November, 2015, 3rd session: 14-17 November, 2016).

The first session of oversea activities was held in in Naypyidaw and Yangon. In Naypyidaw, we met with members from the Japan International Cooperation Agency (JICA), the Ministry of Health in Myanmar, and business partners in Japan. We also visited the local public hospital. On the other hand, in Yangon, we visited private hospitals, the Yangon Eye Hospital, members from the Japan Foundation's Myanmar office, members

from the Japanese Embassy in Myanmar, members from JICA and those from the People's Health Foundation and the Socio Lite Foundation.

The second session included a lecture to participants of the training held in Japan, an introductory explanation on surgery methods using the medical equipment donated to Yangon Eye Hospital through this program, and a donating ceremony in Yangon. We also conducted field trips to local hospitals, as well as research and business negotiations with local consultants at those hospitals and members from Rohto-Mentholatum (Myanmar) Co., Ltd., in order to explore post- program business development opportunities. We also participated in meetings with members from JICA. Not only did we begin preparing for our training session in Japan by conducting lectures and coaching on cataract surgeries, but we also were able to initiate a detailed analysis on post- program business development opportunities through this session.

As for the third session, we visited and met with members from the Yangon Eye Hospital, to donate IOLs and to discuss about the establishment of an eye clinic in Myanmar with Dr. Tin Win, Director of the Yangon Eye Hospital. We also visited Mandalay, for a site visit of our eye clinic, a meeting with our partners at Mandalay Hospital, and to visit and consult the National Mandalay Eye Hospital. At the National Mandalay Eye Hospital, we discussed about future collaborative opportunities, such as hosting training sessions by Dr. Hattori, and having ophthalmologists from the hospital work at our eye clinic.

4.2.2 Purpose

The purposes of our activities overseas are the following:

1. To select ophthalmologists eligible to train in Japan and decide the conditions for their training session
2. To offer coaching on the technology and skills for cataract surgery
3. To give a seminar to government related personnel on the dissemination of the Japanese style cataract treatment package
4. To conduct market research and prepare for the establishment of an eye clinic in Myanmar

4.2.3 Contents

During our first session of overseas activities (24 - 30 May, 2015) we shared an overview of this program with related personnel, and prepared for the training session in Japan through field trips and discussions with local members.

The participants in this session were Mr. Masaya Saito, Director and General Manager of the Corporate Planning Department at Rohto Pharmaceutical Co., Ltd., Mr. Shunsuke Shinoda, Director of Rohto-Mentholatum (Myanmar) Co., Ltd., Ms. Rumi Nishihara, Regional Representative of the Global Business Development and Corporate Planning Department at Rohto Pharmaceutical Co., Ltd. and Dr. Sayako Kanamori, Director of the Research Department and Chief Health Officer at the Japan Institution for Global Health (JIGH). These four members visited the following members in Naypyidaw and Yangon:

Naypyidaw

- (1) Japan International Cooperation Agency Mr. Yohiro Ishii Senior Advisor
- (2) Japan International Cooperation Agency Ms. Mayumi Omachi JICA MCH Expert/Project Coordinator

- (3) Ministry of Health, Health Department Dr. Than Win, M.D. Deputy Director-General
- (4) Ministry of Health, Prevention of Blindness Program Dr. Hla Marlar Project Manager
- (5) Ministry of Health, Health Department Dr. Moe Khaing Deputy Manager
- (6) Ministry of Health, Food and Drug Administration Dr. Theingi Zin Director-General
- (7) Sumitomo Corporation Asia & Oceania Pte. Ltd. Mr. Yuichi Taniguchi Deputy General Manager,
Nay Pyi Taw Office
- (8) Outara Thiri Hospital (Private general hospital in Naypyidaw) Dr. Zar Chi Soe Resident
- (9) Golden Eye International Inc/IQ Vision Eye Care Center (Agency in Naypyidaw of a private eye clinic in Myanmar) Dr. Eve Chan, M.D. Optometrist
- (10) Marubeni Corporation Mr. Akihito Asayama General Manager

Yangon

- (1) Golden Eye International Inc/IQ Vision Eye Care Center (Agency in Naypyidaw of a private eye clinic in Myanmar) Dr. Eve Chan, M.D. Optometrist
- (2) Victoria Hospital (potential partner as a private general hospital) Mr. Kyaw Min Thu International Relations Center Manager
- (3) Yangon Eye Hospital (Hospital with the greatest authority within the field of education of ophthalmologists in Myanmar) Prof. Tin Win Director/Instructor
- (4) The Nippon Foundation (Myanmar Liaison Office) Mr. Toshiro Mado Senior Manager Agricultural Development Program
- (5) The Nippon Foundation (Myanmar Liaison Office) Mr. Shota Nakayasu Project Manager
- (6) People's Health Foundation Dr. Than Sein President
- (7) People's Health Foundation Dr. Thein Swe Deputy Manager
- (8) People's Health Foundation Dr. Htay Lwin Joint Secretary
- (9) Japan International Cooperation Agency Myanmar Office Ms. Yukiko Sano Project Formulation Advisor Private Sector Partnership
- (10) Thu Zar Clinic (Lucky Optical) (Private eye clinic in Yangon run by retired ophthalmologists) Prof. Dr. Kan Nyunt Professor/Sr. Consultant Eye Surgeon
- (11) Socio Lite Foundation Mr. U Naing Winn Director
- (12) Embassy of Japan in Myanmar Mr. Yuichiro Funai First Secretary
- (13) Myanmar Eye Centre (Private eye clinic in Yangon run by ophthalmologists that trained overseas) Dr. Zaw Minn Din Specialist in cataract and vitreoretinal treatment

Firstly, on 21 May, we visited Mr. Ishii and Mr Oomachi from the Japan International Cooperation Agency (JICA) to learn about the situation of healthcare in Myanmar and to share the idea of establishing an eye clinic there. We also went to visit Dr. Than Win, M.D. Deputy Director-General of the Health Department at the Ministry of Health, Dr. Hla Marlar, Project Manager from the Prevention of Blindness Program, Dr. Moe Khaing Deputy Manager of the Health Department at the Ministry of Health, and Dr. Theingi Zin, Director General of Food and Drug Administration at the Ministry of Health, to explain about this program to gain their understanding and support.

On 26 May, we visited Mr. Taniguchi, Deputy General Manager of the Nay Pyi Taw Office of Sumitomo Corporation Asia & Oceania Pte. Ltd., and Mr. Asayama, General Manager of the Marubeni Corporation to exchange opinions about business possibilities in the field of ophthalmology in Myanmar. We also visited Outara Thiri Hospital on the same day. The Outara Thiri Hospital was built after the Government of Myanmar instructed a successful private hospital in Yangon to build a hospital in Naypyidaw. Although the hospital is well equipped, they have few patients and is inactive, for the hospital was not built with consideration of the needs of local patients. Members also visited the Golden Eye International Inc/IQ Vision Eye Care Center, a private local eye hospital, to discuss and gain information regarding license approvals, hiring doctors, facility costs, and their opinions regarding the establishment and management of eye clinics. As for the days that followed (27 - 29 May), our team visited several private hospitals. We met with Mr. Kyaw Min Thu, International Relations Center Manager at Victoria Hospital, to discuss and exchange opinions about the plans regarding an expansion of Victoria Hospital and the possibilities of establishing and managing an eye clinic as part of their expansion. We also met with Prof. Dr. Kan Nyunt, Director of the Thu Zar Clinic (Lucky Optical), as well as Dr. Zaw Minn Din, the Director and specialist of cataract and vitrectomy and the Myanmar Eye Centre, and gained information regarding license approvals, hiring doctors, facility costs, and their opinions regarding the establishment and management of eye clinic in Myanmar.

28 - 29 May were spent in Yangon, where we visited Prof Tin Win, Director of the Yangon Eye Hospital, to gain approval of the directions and schedule for our program in addition to finishing administrative paperwork and going over the final details. We also met with Ms. Sano, Project Formulation Advisor at JICA's Myanmar Office to share our feedback from the meeting at Yangon Eye Hospital and exchange opinions on how to manage our relationship with the Hospital as well as the directions of the program. Furthermore, we met with Mr. Funai, First Secretary of the Embassy of Japan in Myanmar to ask for his cooperation with the administrative work to obtain visas for the participants of our training session in Japan. We also went to visit Mr. Shota Nakayasu, Project Manager at the Nippon Foundation's Myanmar Liaison Office, to learn about the Japan Foundation's activities in Myanmar and the qualifications to join their projects, in order to learn more about potential collaborative opportunities and post- program business development opportunities. Our team also met with Dr. Than Sein, President, Dr. Thein Swe, Deputy Manager, and Dr. Htay Lwin, Joint Secretary, from the People's Health Foundation, to learn more about their vision and their projects, and to exchange opinions about business development in the field of ophthalmology in Myanmar. They taught us about the current situation and issues regarding cataract surgery in Myanmar; Although the number of cataract patients is the greatest out of all patients with eye related disorders, the time taken to treat them using Phaco takes much more than 5 minutes, which is the expected time for surgeries using Phaco. After this meeting, we went to see Mr. U Naing Winn amongst others from the Socio Lite Foundation, to hear about their vision and activities, as well as their thoughts on business development in the field of ophthalmology in Myanmar. The Socio Lite Foundation had ideas to introduce medical insurance, and we exchanged opinions on how we could potentially collaborate in accomplishing that.

The second session of oversea activities was held during 16 - 20 November, 2015, during which we continued to prepare for our training session in Japan. We interviewed the potential candidates and gave an orientation. We also conducted a training session and lecture with Dr. Hattori on how to use Phaco, the ophthalmic Surgical System for phacoemulsification that we donated to Yangon Eye Hospital

Participants of this second session were Dr. Tadashi Hattori, Research Professor at the Kyoto Prefectural University of Medicine, Ms. Rumi Nishihara, Regional Representative of the Global Business Development and Corporate Planning Department at Rohto Pharmaceutical Co., Ltd. and Dr. Sayako Kanamori, Director of the Research Department and Chief Health Officer at the Japan Institution for Global Health (JIGH). These four members visited the following members in Yangon:

- (1) Yangon Eye Hospital Prof. Tin Win Director/Professor (with other staff)
- (2) Dr. Marlar Kyaing, Ophthalmologist, Yangon Eye Hospital, Yangon
- (3) Dr. Zin Mar Myint, Ophthalmologist, East Yangon Hospital, Yangon
- (4) Dr. Ni Ni Hlaing, Ophthalmologist, Yangon Eye Hospital, Yangon
- (5) Dr. Khaing Nwe Ni, Staff Officer, Trachoma and Blindness Prevention Program
- (6) Dr. Mya Wut Yee Soe, Assistant Lecturer (Ophthalmology), University of Medicine (1), Yangon
- (7) Dr. Aye Win Myint Phyo, Assistant Lecturer (Ophthalmology), University of Medicine (1), Yangon
- (8) Dr. Aye Kyawt Kyawt Lat, Assistant Medical Officer (Ophthalmology), Trachoma and Blindness Prevention Program, Kyak Pa Daung Township
- (9) Japan International Cooperation Agency Myanmar Office Ms. Yukiko Sano Project Formulation Advisor
- (10) Rohto-Mentholatum (Myanmar) Co., Ltd. Vice President, Ms. Sandar Shwe (with other staff)
- (11) Dr. Htin Paw, SAKURA Hospital CEO
- (12) Dr. Kyaw Soe, East Yangon General Hospital, Consultant Ophthalmologist

Firstly, on 17 November, the team met with the seven ophthalmologists that were selected to train in Japan. We heard about their vision of their career paths after participating in the program, and how they wished to apply what they have learned in Japan for those in Myanmar. We also shared the objectives and schedule of the training session in Japan, and also conducted a coaching session on the skills required for cataract surgery on the same day. Specifically, Dr. Hattori explained how to use the surgical system Phaco-CV9000 that we donated to Yangon Eye Hospital, and lectured the participants on cataract and other eye disorders. The participants asked many questions about the technology and skills required during surgery (Please refer to the photos below).



Lecture by a Japanese doctor on eye disorders including cataract

On 19 November, we participated in a donating ceremony and seminar for the medical equipment Rohto Pharmaceutical donated to Yangon Eye Hospital, all of which could be used with Phaco-CV9000 to treat cataract. At the ceremony, Prof Tin Win mentioned his appreciation for Japan's continuous support (please refer to the photos below).



Lecture by a local doctor on cataract and other eye disorders

On 20 November, we met with Ms. Sano from JICA, to give feedback of the events that took place at Yangon Eye Hospital. In addition, we also consulted her on the administrative process to obtain visas for the training session in Japan, and the maintenance of the medical equipment we donated.

In addition, we also went to consult members from Rohto-Mentholatum (Myanmar) Co., Ltd and the local hospitals for our post- program business development and future collaborative opportunities. Specifically, we met with Ms. Sandar Shwe, Vice President of Rohto-Mentholatum (Myanmar) Co., Ltd, to discuss the details of our eye clinic project (service contents and potential partners). We also met with Dr. Kyaw Soe, an eye consultant at the the East Yangon General Hospital, and explained about our post- program business ideas and received advice on how to obtain equipment and recruit doctors. We also met with Dr. Htin Paw, CEO of an import company of used medical equipment as well as of SAKURA Hospital. He gave us information about how to import used medical equipment into Myanmar, maintenance services, and how he runs and manages his hospital. We also received a positive response when we inquired about potential collaborations between his hospitals (he is currently establishing two new hospitals) for our eye clinic project. Lastly, we went to visit Green Hantha General Hospital, another potential partner for our eye clinic project, and shared an overview of the program with members at the hospital (the person in charge of such affairs was absent the day we visited). Although Rohto-Mentholatum (Myanmar) Co., Ltd kept in touch with both hospitals, we did not end up collaborating with them.

Through the first two sessions overseas, we were able to discover the demands for high quality eye surgeries by world-class ophthalmologists, and the difficulty in establishing a profitable eye clinic in Yangon, due to the numerous other private eye clinics already present in the region. After the second session, Rohto-Mentholatum (Myanmar) Co., Ltd kept searching for partners, and we were able to gain an approval from Mandalay Hospital, a hospital run by an acquaintance of Ms. Sandar from Rohto-Mentholatum (Myanmar) Co., Ltd. With the fact that Rohto-Mentholatum (Myanmar) Co., Ltd also had an agency in Mandalay, we discovered that it would be much better to aim to establish an eye clinic in Mandalay, rather than Yangon. In addition, we discovered that sales for Rohto-Mentholatum (Myanmar) Co., Ltd's cosmetics were higher in Mandalay than Yangon, and that the citizens there had a certain level of wealth. Due to such, we decided to partner up with Mandalay Hospital and discuss how to progress forward with our project with them. As for Yangon Eye Hospital, it will still remain a vital partner in this program, especially since it is the greatest educational institution for ophthalmology for all of Myanmar and it has the most authority in the field of ophthalmology in the country. We hope that with our good relationship with its Director, Prof. Tin Win will consider become an honorary director after his retirement.

The third session of our oversea activities was conducted during 14 - 17 Novemeber, 2016, during which we visited the site for our eye clinic, met with our partnering institution, Mandalay Hospital, and visited the National Mandalay Eye Hospital. Since it would be necessary to collaborate with the National Mandalay Eye Hospital to open up an eye clinic in the same region, we went to discuss future collaborative opportunities, such as training sessions with Dr. Hattori and the recruitment of part-time ophthalmologists after we open our clinic. Although the training sessions would depend on Dr. Hattori's schedule, we are looking into conducting one in March 2017.

Participants of the third session included Dr. Tadashi Hattori, Research Professor at the Kyoto Prefectural University of Medicine, Mr. Shunsuke Shinoda, Director of Rohto-Mentholatum (Myanmar) Co., Ltd., Ms. Rumi Nishihara, Regional Representative of the Global Business Development and Corporate Planning Department at Rohto Pharmaceutical Co., Ltd., and Ms. Sandar Shwe, Vice President of Rohto-Mentholatum (Myanmar) Co., Ltd. Mr. Prakash and Dr. Juneja from Sharp Sight (India), joined us in Mandalay. We visited the following members:

- (1) Yangon Eye Hospital Prof. Tin Win Director/Professor (with other staff)
- (2) Director Rohto-Mentholatum (Myanmar) Co., Ltd. Mr. Soe Myint (with other staff)
- (3) Mandalay Eye Hospital Prof. Yi Aung (with other staff)

On 15 November, our team visited Yangon Eye Hospital and donated IOLs. We also met with Dr. Tin Win and reported on the progress regarding our post- program business. At night, we moved to Mandalay, where we dined with local ophthalmologists. On 16 November, we visited the National Mandalay Eye Hospital as well as the Mandalay Hospital. At the Mandalay Hospital, we discussed recruitment and administrative procedures for collaboration, and took a tour of the hospital to examine the site where our eye clinic would be located (the first floor of the old hospital building). At the National Mandalay Eye Hospital, we met with Director Yi Aung, and discussed how to train ophthalmologists in Mandalay with Dr. Hattori, and how we could collaborate on our eye clinic project. Although we had originally heard that vitrectomy was not conducted in Mandalay, we found that Prof. Yi Aung and another young doctor could perform surgeries on the vitreous humor, although the level was not that of an advanced surgeon (Dr. Hattori, who observed Prof. Yi Aung's surgery, gave it a B-). We discovered that in Mandalay, they have a German ophthalmologist visit for a week once every 2-3 months (not always the same ophthalmologist), and that there were patients who loose their eyesight waiting for them, for they could not be treated by the local ophthalmologists available. Although the local ophthalmologists could not give a specific number, the number of patients that need care seemed to greatly outnumber the local ophthalmologists, therefore Prof. Yi Aung mentioned their appreciation of Rohto's plan to establish an eye clinic and offer treatment for cataract and vitrectomy.

Although the medical equipment used at the National Mandalay Eye Hospital were highly advanced (models such as OMS710 and Lumera700 were used, placed there with the support of the government). there were less opportunities for ophthalmologists in Mandalay to learn how to use such equipment (such training was only available when the German ophthalmologists would visit). Therefore, Prof. Yi Aung also mentioned how grateful they were for Dr. Hattori's training. Our team returned to Yangon during the night of 16 November, and discussed with Dr. Hattori and Rohto-Mentholatum (Myanmar) Co., Ltd about the equipment and PL for the eye clinic.

4.2.4 Outcomes

Through our oversea activities, we were able to identify the tasks at stake within the field of ophthalmology in Myanmar, such as the lack of medical specialists as well as the lack of training opportunities for them to develop their skills. In addition, we were able to check market needs for eye hospitals and clinics, and discover the need for cataract surgery and vitrectomy. We also found that there was a demand for technological support and the development of human resources.

In addition, we were able to deepen our connection with many ophthalmologists in Myanmar, starting with those at the Yangon Eye Hospital. Such connections are beneficial for us, as Rohto Pharmaceutical prepares to establish an eye clinic after this program. Furthermore, through donations of Rohto's IOLs, we were able to increase awareness of their availability at Yangon Eye Hospital and have ophthalmologists there become skilled at using them.

4.2.5 Challenges

In order to establish an eye clinic in Myanmar, we must still work to obtain necessary medical equipment, renovate the clinic building, and recruit a permanent ophthalmologist for the clinic. Due to such, we will need to still take further action in Myanmar to progress forward.

In addition, in regards to the training of local ophthalmologists, we will need to come up with a long-term strategy that will involve training in both Japan and in local institutions.

SECTION 5: PROGRAM SUMMARY (EVALUATION REGARDING PROGRAM RESULTS)

5.1 Outcomes (In regards to our contributions to our target country, region and cities)

Through our activities in Myanmar, we were able to observe and evaluate the situation regarding the lack of medical staff and training as ophthalmologists. In addition, although there were minor adjustments that needed to be made in our initial schedule, due to staff reassignment at the Ministry of Health and Yangon Eye Hospital, we were able to contribute to the development of ophthalmologists in Myanmar through many routes; the implementation of a training session in Japan through thorough selection and preparation from three overseas sessions, the opportunity to host a seminar for government-related personnel in order to gain their understanding and approval to conduct training to treat cataract and to disseminate Japanese style cataract treatment package care. Furthermore, we were able to conduct necessary market research and build connections with local ophthalmologists, all of which are necessary for our post-program business development to establish an eye clinic in Myanmar.

As for a notable difficulty we faced, the amount of time it took for the parties involved (the Ministry of Health in Naypyidaw and the Yangon Eye Hospital in Yangon), which were located far from each other, to agree upon the necessary documents was much more than we had initially expected. However, we were able to largely disseminate news regarding this program through the local media, due to the great number of journalists that participated in the donating ceremony and our seminars.

A reason for why it took a lot of time for the Yangon Eye Hospital and the MOH to agree upon necessary documents would be due to the lack of access to the Internet at the Yangon Eye Hospital, despite the democratization and speed of development of economic infrastructure in the country. In addition, with numerous staff reassignments souring our program, it took time to explain the overview, purpose, goals and post-program plans repeatedly to newly assigned counterparts. It was also necessary to go over and agree upon the details of our project contracts and agreements with the Government of Myanmar, especially for sections concerning the military. It was difficult to respond to many of the emails and phone calls that came in regarding this issue, and we would not have been able to overcome this issue without the help of Rohto-Mentholatum (Myanmar) Co. Ltd. and JICA.

Not only this, as the participants of the training session in Japan mentioned how they wished for opportunities to experience texting and operating, it was quite difficult arranging a training session that could coach participants about cataract training comprehensively, without having the participants actually be involved in the surgeries or exams themselves. We conclude that although we were able to gain a certain level of understanding by using visual material such as videos, it would be much clearer if we could conduct training through actual operations, even if it would be necessary to conduct them remotely.

On the other hand, as mentioned above, we were successful in gaining a lot of media attention through events such as the donating ceremony and seminars, allowing us to prepare the environment well for our post-program business development.

5.2 Outcomes (In regards to business)/ remaining challenges and potential solutions

Through this program, we were able to research the market needs for ophthalmology hospitals and clinics, see the current situation regarding patients with eye disorders, and identify the amount of support that the local ophthalmologists needed in regards to training and development of human resources. We were also able to discover a demand for vitrectomy from our interaction with the ophthalmologists who visited Japan, and our site visits to Yangon Eye Hospital and the National Mandalay Eye Hospital. We were also able to deepen

our connections with the local staff members at each hospital, which will be vital as we prepare to establish an eye clinic in the country.

Currently, preparations for the eye clinic are going smoothly, especially due to the support from our partnering institution, Mandalay Hospital.

Future issues we need to consider are the initial costs for the clinic, as well as the recruitment of permanent ophthalmologists for the clinic. In order to keep initial costs low, we are aiming to import used medical equipment that are still in good condition by asking for connections from Dr. Hattori. As for recruitment, we are working with Ms. Sandar Shwe to contact potential candidates in Singapore and Malaysia.

Finally, the issue of how to train the local ophthalmologists is a long-term challenge that will need to be addressed. Since there are no ophthalmologists in Mandalay that can conduct highly advanced surgeries on the vitreous humor, we will aim for to increase the level of ophthalmologists in Mandalay through training offered by Dr. Hattori; by collaborating with charity organizations that the Mandalay Hospital or Rohto Pharmaceutical have connections to, we hope to offer many opportunities and charity surgeries for the local ophthalmologists to improve their skills through hands-on training with Dr. Hattori. Such training will require long-term commitment, and although the schedule for training will depend on Dr. Hattori's schedule and the level of funds raised through charity, Dr. Hattori has agreed to fly over at least three times a year. We hope to conduct the first training session in March 2017.

#	Task	Schedule				Details of progress and evaluation	Leftover tasks and future directions	
		Session 1 (Myanmar)	Session 2 (Myanmar)	Session 3 (Japan)	Session 4 (Myanmar)			
1	Evaluation of market and local needs					Completed	<ul style="list-style-type: none"> Confirm that there are needs in the local market through research and interviews conducted at national and private eye hospitals during activities held in Myanmar 	-
2	Evaluation of market and local needs					Tasks leftover	<ul style="list-style-type: none"> To gain approval and support from Yangon Eye Hospital and Mandalay Hospital to establish an eye clinic in Myanmar 	<ul style="list-style-type: none"> We will continuously provide training for ophthalmologists in Myanmar, for there is a demand at National medical institution for training sessions from specialists such as Dr. Hattori
3	Receive approval for alliance from local partners					Completed	<ul style="list-style-type: none"> Receive confirmation from Mandalay Hospital for their collaboration 	<ul style="list-style-type: none"> We will confirm final details in order to conclude the contract
4	Receive approval to hire medical doctors from foreign countries for the eye clinic					Completed	<ul style="list-style-type: none"> Receiving approval will be possible with the support of Mandalay Hospital 	-
5	Increase the skills and technology of local ophthalmologists					Tasks leftover	<ul style="list-style-type: none"> We have conducted two training sessions, one in Myanmar and one in Japan. Although both sessions were successful, we must plan long-term strategies for continuous improvements 	<ul style="list-style-type: none"> We aim to continuously provide training for local ophthalmologists with the cooperation of Dr. Hattori
6	Secure profitability					Tasks leftover	<ul style="list-style-type: none"> With the current local demands for eye surgeries (for cataract and vitrectomy), the clinic will be profitable if we can secure highly skilled ophthalmologists and create an efficient operating system. However, the initial investment to launch the clinic may be more than what we initially expected 	<ul style="list-style-type: none"> We aim to keep the initial costs as low as possible by collaborating with Dr. Hattori to procure high quality used medical equipment, which we would be able to purchase at a cheaper price

5.2.1 Outcomes (In regards to business)

Through this program, we were able to research the market needs for ophthalmology hospitals and clinics, see the current situation regarding patients with eye disorders, and identify the amount of support that the local ophthalmologists needed in regards to training to conduct high level cataract surgery and vitrectomy, and for the development of skills and human resources. We were also able to discover a high demand for vitrectomy which we were unaware of at the start of this program.

In addition, we were able to deepen our connection with local ophthalmologists from around Myanmar, starting with those from the Yangon Eye Hospital. Such will be greatly beneficial as we work to launch the eye clinic in Mandalay. Prof. Yi Aung from the National Mandalay Eye Hospital has expressed words of welcome regarding Rohto's post- program plans, and has agreed to work part-time at the clinic along with other ophthalmologists from the hospital. In addition, Prof. Aung has happily agreed to provide support for the training sessions we hope to conduct with Dr. Hattori in Mandalay.

We have been able to make steady progress towards the launch of the eye clinic due to the support from Mandalar Hospital that has helped us obtain license to practice medicine in the country.

5.2.2 Remaining challenges and potential solutions

Short term challenges we currently face are to keep the initial costs low for our post- program business development plans, and to recruit a permanent ophthalmologist for the clinic. We are currently aiming to overcome the former with Dr. Hattori, by seeking ways to obtain used medical equipment that is still in good shape for a cheap price. As for the latter, Ms. Sandar Shwe from Rhoto-Mentholatum (Myanmar) Co., Ltd. is still keeping in contact to seek out potential candidates from ophthalmologists currently located in Singapore and Malaysia.

Finally, the issue of how to train the local ophthalmologists is a long-term challenge that will need to be addressed. Since there are no ophthalmologists in Mandalay that can conduct highly advanced surgeries on the vitreous humor, we will aim for to increase the level of ophthalmologists in Mandalay through training offered by Dr. Hattori. The local ophthalmologists at the National Mandalay Eye Hospital have expressed how they seek opportunities to improve their skills, and therefore the training of such local ophthalmologists is one we will need to continuously address over a long period of time.

We hope to provide opportunities for ophthalmologists to observe surgeries performed by Dr. Hattori at the new eye clinic, while also creating opportunities where they would be able to gain hands-on experience by performing the surgery alongside Dr. Hattori as part of Rohto's CSV activities. Such will allow for those from low-income backgrounds to receive the care they need, while providing opportunities for the local ophthalmologists to gain the training they need.

Furthermore, we have been able to donate the Ophthalmic Surgical System for Phacoemulsification to the Yangon Eye Hospital, in order to treat cataract there. The system will be maintained by Prof. Tin Win. Rohto Pharmaceutical will continue to collaborate with the Yangon Eye Hospital and provide IOLs as well as charity surgery opportunities as part of their CSV activity. Such will also allow for frequent check-ups on the state of medical devices we have donated.

SECTION 6. POST-PROGRAM BUSINESS DEVELOPMENT PLANS

6.1 Purpose and goals of establishing a business

6.1.1 Goals (In regards to economic contributions towards the target country, region and cities)

The establishment of a Japanese style eye clinic will lead to an increase in the sale of Rohto's IOLs, and ensure a steady entrance into the field of medical services in the country.

In addition, such will contribute to the lowering of blindness rates within Myanmar, through the increased availability of highly skilled cataract surgery and vitrectomy, charity surgeries and training opportunities for local ophthalmologists.

6.2 Plans for business development

6.2.1 Overview

We are planning to open the Japanese style eye clinic during April, 2017.

Although we will attempt to keep initial costs low, by obtaining used medical equipment, we will seek to gather highly advanced equipment that will allow us to respond to the demands for high quality cataract treatment and vitrectomy, and thus provide specialized care at the quality expected from a Japanese style clinic.

As previously mentioned although the local ophthalmologists cannot conduct vitrectomy to treat eye disorders such as retinal detachment, there is a great number of patients in need of such treatment. Therefore, it will be necessary for Dr. Hattori and Dr. Juneja to respond to such demands, while also training and coaching the local ophthalmologists in Mandalay to improve and increase their skills. They will visit the clinic throughout the year (Dr. Hattori is expected at least 3 times a year while Dr. Juneja will be flying in at least once a month), and will provide training sessions while seeing and treating patients.

We will also train the ophthalmologists about the operational and hospitable side of service, in addition to treating patients with speed and efficiency.

6.2.2 Target

The target clients to increase the sales for Rohto Pharmaceutical IOLs will include all eye hospitals in Myanmar

The target clients for the eye clinic are those from the middle income class, who tend to choose private hospitals with good environments despite the increase in medical fees (as seen at other medical departments at the Mandalay Hospital). However, we will also collaborate with the Mandalay Hospital and other charity organizations to conduct charity surgeries to treat and prevent blindness amongst those in poverty.

When it comes to treating disorders related to the eye, the current trend for middle income patients is to go abroad or to go to hospitals in Yangon.

6.2.3 Challenges in future business development and possible solutions

Short term challenges we currently face are to keep the initial costs low for our post- program business development plans, and to recruit a permanent ophthalmologist for the clinic. We are currently aiming to

overcome the former with Dr. Hattori, by seeking ways to obtain used medical equipment that is still in good shape for a cheap price. As for the latter, Ms. Sandar Shwe from Rhoto-Mentholatum (Myanmar) Co., Ltd. is still keeping in contact to seek out potential candidates from ophthalmologists currently located in Singapore and Malaysia.

Finally, the issue of how to train the local ophthalmologists is a long-term challenge that will need to be addressed. Since there are no ophthalmologists in Mandalay that can conduct highly advanced surgeries on the vitreous humor, we will aim for to increase the level of ophthalmologists in Mandalay through training offered by Dr. Hattori. The local ophthalmologists at the National Mandalay Eye Hospital have expressed how they seek opportunities to improve their skills, and therefore the training of such local ophthalmologists is one we will need to continuously address over a long period of time.

We hope to provide opportunities for ophthalmologists to observe surgeries performed by Dr. Hattori at the new eye clinic, while also creating opportunities where they would be able to gain hands-on experience by performing the surgery alongside Dr. Hattori as part of Rohto's CSV activities. Such will allow for those from low-income backgrounds to receive the care they need, while providing opportunities for the local ophthalmologists to gain the training they need. As for the ophthalmologists who receive training, we are considering to first coach ophthalmologists that work at the Mandalay Eye Hospital that would also be working part-time at the clinic. Although the dates for the first charity surgery and the training session have yet to be decided, we are looking into March 2017 as an option, for Dr. Hattori will be flying to Myanmar to prepare for the clinic's grand opening.

6.2.4 Risks and prevention

There is a possibility that we would not be able to gather many patients right after the clinic's opening therefore be unable to gain the profits we initially expected. However, in order to prevent this, Rohto-Mentholatum (Myanmar) Co., Ltd. will use their experiences in Myanmar thus far and work on PR activities, while also collaborate with the National Mandalay Eye Hospital to receive the patients that they could not treat (the patient will pay themselves or we will have the costs covered by funds for charity surgeries). Although the National Mandalay Eye Hospital treats patients with cataract, we will offer our services to patients from middle-income backgrounds who choose to receive care in a better environment without much waiting time.

6.3 Possibilities of collaborating with ODA projects

6.3.1 Necessity for collaboration

We identified a great need for training to raise the skills of ophthalmologists through this program, and feel that it is necessary to offer training sessions through ODA projects for ophthalmologists abroad and share our skills and knowledge. Although national hospitals have highly advanced equipment, from the government and charity organizations, most of the ophthalmologists have not received enough training to use them. In addition, although there are government funded scholarships in neighboring countries such as Thailand for ophthalmologists to visit countries abroad for training, such is not available in Myanmar, limiting the chances for ophthalmologists to receive further training. Furthermore, it is difficult for ophthalmologists in Myanmar to obtain visas to do so, thus further hindering their chances of training abroad.

If Rohto Pharmaceutical establishes an eye clinic in Mandalay and deepens their connections with local ophthalmologists, it would be possible to provide training through ODA with the aid of the Government of Japan, JICA, and skilled professionals such as Dr. Hattori and Dr. Juneja.

6.3.2 Possible project schemes

We think it would be possible to provide training ophthalmologists from abroad for ophthalmologists in Myanmar by using a technical cooperation scheme.

6.3.3 Specific contents of the project

For the contents of the project, we propose to provide training for ophthalmologists in Myanmar to increase their skills, knowledge and abilities. When Japanese eye hospitals offer training to ophthalmologists that are non-Japanese, the ophthalmologists are not able to participate in any surgeries under the Japanese law. Although there is much to be learnt from simply observing surgeries, there would be greater outcomes if they were able to get hands-on experience. Therefore, we propose that we conduct this program by dispatching Japanese ophthalmologists to coach others in their local environments, or to send the ophthalmologists that require training to countries where they would be able to partake in surgeries, such as India. Through the use of ODA, we could also use invite those such as Dr. Hattori and Dr. Juneja as well as other ophthalmologists from Sharp Sight to Mandalay, and provide opportunities for local ophthalmologists to train alongside highly skilled professionals. In such cases, it would be necessary for Rohto Pharmaceutical to arrange the logistics and coordination for all parties involved.

Although Rohto has a history of providing many free optical tests and surgeOries as part of their CSV activities, if they are able to collaborate with the Government of Japan and JICA, it would be possible for them to conduct their projects and provide their support at a greater scale than before.

Another potential area of collaboration using ODA would be to build a general hospital with an eye clinic managed by Rohto. Although the eye clinic is currently under preparation with the aid and support of Mandalay Hospital, we hope that this project would kick off a series of eye clinics around Myanmar. If there are plans to establish a hospital with Japan's ODA, we would be interested in creating another eye clinic there.

Overall, we find it would be a great contribution if we are able to decrease the number of those that suffer from avoidable blindness by improving the level of local ophthalmologists and by increasing the number of highly advanced eye clinics in Myanmar.

Accompanying Material

- ✧ Attachment 1: Assessment of the Myanmar ophthalmologists' Training in Japan

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