



Lao People's Democratic Republic  
Peace Independence Democracy Unity Prosperity

---

***Ministry of Health***

***Project Proposal***  
***The Center of Medical Rehabilitation (CMR)***

*Prepared by: Bounmy Sihaphom*

*B. of Engineering, MCITP*

*June 29, 2013*

## Table of Contents

	<b>Page</b>
I. Project Information	2
1. Name of the Organization	2
2. Project Title	2
3. Project Summary	2
4. Project Time Frame	2
5. Project Management Team	2
II. Background	
1. Main Building	3
2. Main Services	3
3. Main Duties and Responsibilities	4
4. Secret War	4
5. International Cooperation	5
6. Statistic for Disabled People in Laos	5
7. Type of disability	5
• Cause of Disability	6
• UXO Related Disabilities	6
• Cultural Challenge	7
III. Objectives	8
Main Objectives	8
Project Beneficiaries	9
IV. Budget	
Estimated Cost	9
Source of Funding's	10
V. Project Implementation and Management Plan	10
1. . Project activities and work plan	10
2. CMR Projects Tasks and Assignments	11
VI. Conclusion	12
VII. Appendix	12
<b>I. <u>Project Information</u></b>	

The Center of Medical Rehabilitation (CMR) proposed plans for the construction of new facilities and renovation of the existing Rehabilitation Centers, upgrade of medical equipments, training of its staff to international standards. This is a starting phase of CMR expansion plan across the country from 2012 to 2020 :

1. New facility at the Centre of Medical Rehabilitation (Vientiane)
  2. New facility for the blind and deaf students ( Savannakhet)
  3. New facility for the elderly and disabled people (Xiengkhouang).
1. **Name of the Organization:** The Center of Medical Rehabilitation (CMR), Ministry of Health, Lao People's Democratic Republic (PDR).

**Address:**

Center Of Medical Rehabilitation  
Khouvieng Road, Sisattanak District  
Vientiane Capital, Lao PDR.P.O.Box: 5030  
Office: (85621) 214044, Fax: (85621) 242702  
Mobile: (856 20) 55968668  
Website: www.cmrlao.org

2 **Project Title:** 2013 CMR Projects

3 **Project Summary**

The last National Census conducted in 2005 identified some 400,000 disabled people in Lao PDR. This figure is increasing due to ongoing UXO explosions, poverty, limited access to health care, injuries from traffic accident and population growth. We estimated 20% of total disabled people are children. Many disabled people in Lao PDR, live in poverty, have limited opportunities for accessing education, health, suitable housing and employment opportunities.

The Center of Medical Rehabilitation play an active role in our community despite our limited capacity (outdated facility, old or broken equipments and lack of human resource), we determine to fulfill our duties and responsibilities to the best of our abilities set out by the Ministry of Health and International Obligation toward disabled people,

CMR master expansion plan from 2013 to 2020 which starts off by building new facilities in Vientiane, Savannakhet and Xiengkhouang.

With your generous support, the Center would have a new lab, potentially a stem cell advanced research center. Thus we can improve and develop comprehensive rehabilitation services at the center and across the country.

With dedicated individuals participated in our project management team and with full cooperation of the Ministry of Health ,we definitely can carry successfully this challenging task including organizing fundraising events during the construction period and beyond.

The proposal will benefit all Lao people as a whole, but especially people with disabilities, it will give them hope, better choice of treatment and enable them to have equal job opportunity after inclusive education and vocational training, and then they can live a normal life.

CMR and the Ministry of Health are committed to achieve the Millennium Development Goals by 2015.

**Notes:** The eight MDGs target a range of critical areas of development including maternal and infant health and mortality, malnutrition, universal primary education, gender equality, combating infectious diseases and environmental sustainability, while the ninth MDG focuses on reducing the impact of UXO, a problem which hinders the socio-economic development of Laos

#### **4 Project Time-frame**

March 1st, 2013 – November 28, 2015. This time frame will depend on the project funding's.

#### **5 Project Contacts:**

##### **A. List of Contacts:**

##### **1. Advisory Board Members:**

1. Dr. Viphavanh Phomvihane, Senior Ambassador to CMR
2. Dr. Kotsaythoune Phimmason, Deputy Director of Department of Finance, Ministry of Health, Email:ksaythoune@gmail.com.
3. Ass.Prof., Dr. Bounnack Saysanasongkham, Deputy Director of Health Care Department , Email:sbounnack@gmail.com.

##### **2. Project Management Team**

1. Project Management Team Leader :Dr. Khampheth Manivong, Director General of the Center of Medical Rehabilitation,
2. Public Relation: Mr Phatthanaphong Patsamas, Deputy of Information Technology Division of CMR
3. Project coordinator of Vientiane: Dr Khamko Chamlath Chief of CBR and International cooperation, Tel 55698868 ,Email:chomlako@yahoo.com
4. Project coordinator of Savannakhet: Mr Peng Deputy of Center of Medical

Rehabilitation of Savannakhat, Mobile: 55640585

5. Project coordinator of Xiengkhouang: Mr. Khamsavang Chief of Centre of Medical Rehabilitation in Xiengkhouang, Mobile: 22478335

6. Finance Officer: Mr Duangta Sayyasen, Chief of Financial Division, Mobile: 22202744

7. Advertising Coordinator (Updating project): Mr. Sisomphou Bounyasan, Deputy Director Centre of Medical Rehabilitation, Mobile: 2224191

8. Fund Raising Organizer: Dr Milavanh Lomany Chief of Administration, Mobile: 021 214044

### 3. Consultant Team

1. Bounmy Sihaphom, MCITP, B.Eng, Electrical Engineer (Calat)  
Email: bsihaphom@gmail.com, Mobile: 5663 6285

2. Anousak Anthony Souphavanh, Master of Science, Computer Science  
Rochester Institute of Technology, Rochester, N.Y. 1995 (Calat)  
Email: Anousak@gmail.com, Mobile: 5549 3166

**Figure 1:** Project Organization Chart

### B. Project Organization Chart:



## II. BACKGROUND

The center of Medical Rehabilitation (CMR ) formerly known as The National Rehabilitation Center (NRC) , was founded in 1963 under the Ministry of Health and is responsible for providing and coordinating rehabilitation services throughout the country. Various International organizations have been involved in supporting the NRC on a wide range of issues, such as visual impairment, provision of wheeled mobility devices, manufacturing of prostheses/orthoses (P&O) and rehabilitation. Four provinces now have rehabilitation centers – all supported by CMR. In cooperation with the Ministry of Education, in 1992, the center opened its doors to children with impairments. It is the only school in Laos offering special education to children (amputees, movement-impaired, deaf, mute and visually impaired persons). Now the Center has 97 in patients (30 blinds,67 deaf ) and 34 out mental patients.

In 2011, The National Rehabilitation Center (CMR) has become officially the Center of Medical Rehabilitation(CMR) with 100 beds dispersed in different buildings. CMR employed 186 men and women in 15 departments. They are:

- Administrated Division
- Finance Account Division
- CBR/International cooperation Division
- Prosthesis & Orthotic Division
- Wheelchair Division
- Medical Administrated Division
- Medical Supply
- Neurological Rehabilitation for adult
- Pediatrics Rehabilitation Division
- Physical Therapy Division
- Plastic Surgery Division
- 489 (489 Hospital
- Information Technology Division
- Special Education School
- Vocational Training School for People with Disabilities(PWD)



**Fig. 2:** CMR's Building main location

### 1. Main Buildings: (see Fig.2)

1. Orthopedic Surgical Division (donated by Government of Vietnam), see fig.2
2. Physiotherapy and Pediatric (Neuro Pediatric and Rehabilitation )
3. Prosthetic and Orthotic Production and Director Office

4. Dormitory and Treatment Wing (Under renovation)
5. Administration and the Blind Dormitory
6. Indoor Stadium for Disabled People  
(Donated by JICA)
7. The deaf Dormitory and meeting room
8. The School for the hearing impairment Children  
(Donated by Camelian, Austria)
9. The Cooperative Orthotic and Prosthetic Enterprise (COPE)
10. Restaurant and Variety Store
11. Wheelchair Workshop
12. Temporary Dormitory
13. New Building Location

Many renovation need to be done in some of these buildings before any use. Medical Equipments are outdated and broken. Even disabled accessibilities are available in some two stories buildings (2,4,and 5 see fig. 2), building no 7 ,there is no disabled access. There are no lifts in these building except the steep cement pathway around the building corner. It's hard for disabled people to go to 2<sup>nd</sup> floor by themselves.

Also it's almost impossible to put services or departments at the same building, it's not convenient to move patients from one location to another during rainy season.

## 2 Main Services at MRC:

- Provide a physical medicine rehabilitation with complex medical rehabilitation, Orthopedic surgery and elderly care ;
- Provide Prosthetic and Orthotic fitting and Wheelchairs with in-house production;
- Research & development on medical Rehabilitation
- Train in and out patients and teach medical rehabilitation to Universal Health Care Service;
- Provide a special education and inclusive education to Children with disabilities and provide occupational education to people with disabilities
- Provide Community based rehabilitation(CBR) program and disability prevention across the country



**Figure 2:** Prosthetic and Orthotic devices produced at CMR

Each year since 2011, the center has served more than 12,499 outpatients, 411 in patient, performed 80 orthopedic surgeries, conducted 206 lab tests , 577 X-ray cases, and provided 980 Prosthetic and Orthotic fittings and 442 pieces of wheelchairs. Currently, CMR has 67 deaf and 30 blind students who are studying at special school, and 102 people with disability at Vocational School. ,

### **3, Unexploded Ordnance(UXO)**

From 1964 to 1973, the U.S. dropped more than two million tons of ordnance on Laos during 580,000 bombing missions—equal to a payload of bombs every 8 minutes, 24-hours a day, for 9 years – making Laos the most heavily bombed country per capita in history. Up to a third of the bombs dropped did not explode, leaving Laos contaminated with vast quantities of unexploded ordnance (UXO). Over 20,000 people have been killed or injured by UXO in Laos since the bombing ceased. Each year there continue to be over 100 new casualties in Laos. Close to 60% of the accidents result in death, and 40% of the victims are children.

### **4, International Cooperation**

Laos has recently benefited from international support in the technical, financial and human resource fields. There are some disability-related assistance with many active contributors in different programs , such as:

- Handicap International for Community based rehabilitation program in 4 districts in Savannakhet from 2012-2014
- USAID for Prosthetic and Orthotic program from 2011 to 2013
- AUSAID for Prosthetic and Orthotic program, from 2011-2014
- The Christian Blind Mission (CBM) support P&O program from 2012-2014 through COPE and direct support to CMR for CBR at 4 districts in Champassak,
- The Sultan of Brunei and The Sisters of Saint-Paul Charter Foundation for Vocational Training program, from 2010-2014.
- AAR and DIC ( for wheelchair and UXO victim rehabilitation program in Xiengkhouang, from 2012-2014)
- WE/Consortium for medical care for UXO victims in Xienkhong and Xekhong provinces,

The Cooperative Orthotic and Prosthetic Enterprise (COPE) were formed under a Cooperation Agreement between the Lao Ministry of Health, the National Rehabilitation Centre in 1997. COPE's supporting activities are run in accordance with the Government of Lao PDR priorities as set out in a number of action plans and international obligations. COPE's services participation were delivered through the CMR, in Vientiane and across the country.

## **2. Statistic for Disabled People in Laos**

### **Type of disability**



The National Statistic Bureau estimates that approximately 40,000 people or 1% of the population of 4,580,000 is persons with disabilities.(1999 Statistic).

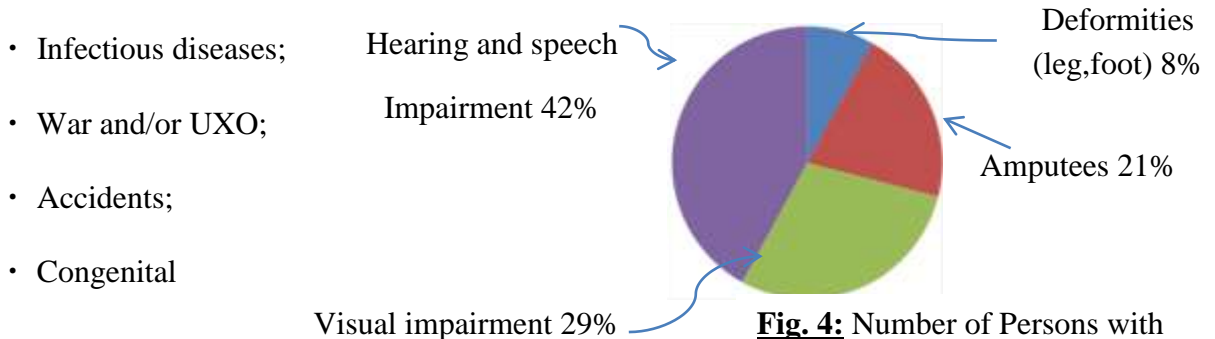
Types of disability	Number of person	%
Arm knee amputees	1241	4%
Below knee amputees	965	3%
Above knee amputees	479	2%
Foot deformities	5074	18%
Leg deformities	2613	9%
Deaf persons	12977	45%
Blind persons	5278	18%

**Table 1:** Number of Persons with Disabilities by Types of Disability from The National Survey of Disabled Persons(NSDP)

### 3. Cause of Disability

The mountainous topography of Lao PDR, lack of transportation and communication infrastructure and inadequate budget has created difficulties in the provision of educational, health, immunization and rehabilitation services for persons with disabilities. There is also a lack of human resources directed at assisting persons with disabilities in becoming self-sufficient and raising their capacity to contribute to national social and economic development and security, The CMR aim to expand it service capacity by adding new Rehabilitation Center at Xiangkhouang and Savannakhet where the most UXO victims are from..

Seventy percent of impairments causing disability in Laos are said to be a result of this general health situation. The 4 main causes of disabilities in Lao PDR are:



**Fig. 4:** Number of Persons with Disabilities by Types of Disability

### 4. UXO Related Disabilities

Unexploded ordnance (UXO) related Disabilities, will continue to occur in Lao PDR for the foreseeable future. The surveys were conducted in 15 provinces to collect data on UXO

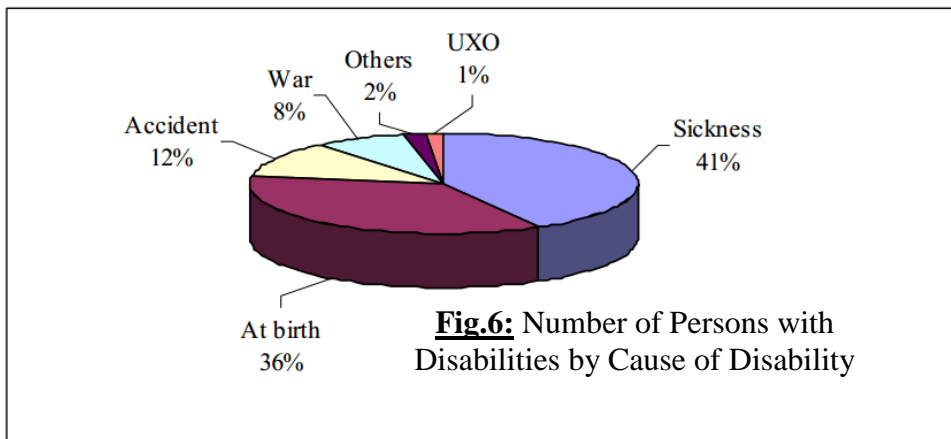
contamination and disabilities resulting from UXO accidents. The annual accident rate averaged **around 240 accidents per year**, with about 65% of those affected by UXO accidents having had a limb amputated. Thirteen percent suffered paralysis, 9% suffered loss of eyesight, 7% suffered burns, and 5% suffered loss of hearing. Despite a special fund for UXO clearance set up in 1993 by the Government, 10% of UXO-related victims were not working.

Type of disability	No. of Victims	% of Total
Amputation	3,347	65%
Paralysis	660	13%
Loss of Eyesight	453	9%
Burns	369	7%
Loss of Hearing	265	5%



**Table 2:** UXO Related Disabilities

**Fig.5:** most contaminated provinces with UXO in Laos



**Fig.6:** Number of Persons with Disabilities by Cause of Disability

Source: Handicap International and National Center for Medical Rehabilitation (1999)

## 5. Key Challenges

The overall obstacles that are facing us today:

- Cultural Changes
- Large Poverty number
- Traffic accident and injuries
- Environment contamination

- Disease pattern change (stroke, diabetes...)
- High Medical Supply Demand (HR, FUND, EQUIPMENT)
- Large UXO coverage

A primary challenge continues to be creating a cultural change throughout the rehabilitation centers that has the patient at the center of all services, ensuring the patient is well-informed to make proactive decisions about their own health. This will continue to be a challenge that needs to be addressed . Additionally, updating practice to international standards is needed ..

In rural area, many people still believe that disabilities, particularly leprosy, are untreatable and contagious. For those persons with disabilities who are not stigmatized and shunned by society, inaccessible transportation and buildings have still prevented many from leading as normal a life as possible. Some still think disability is a curse or an embarrassment to the family, or they do not think treatment or rehabilitation is warranted for their children with disabilities. There are families that think rehabilitation is sinful, or they do not know how to assist, train, or rehabilitate (basic physiotherapy) their child.

To extend beyond the provincial level and address this issue The Center of Medical Rehabilitation together with COPE, have a great challenge ,are now developing Outreach network with the help of The Christian Blind Mission (CBM) to identify disabled people and access to them in remote area across the country and to educate them about the treatment available to them. COPE definitely is a main expense contributor to them when needed.

### **III. OBJECTIVES**

#### **1. Main Objectives**

We layout future plan regarding buildings as follow:

- Build a new building for Rehabilitation Service with 5 floors by 2015;
- Initiate the Habitation Center for the Autism Children at CMR and create pilot project for Elderly Care Service at CMR by 2015;
- Renovate Special School and Workshop at CMR, Xiangkhouang and Savannakhet by 2015;
- Expand CBR program to 8 districts in Xiangkhouang, 3 districts in Vientiane Capital, 3 districts in Bolikhamxay and 3 districts in Khammouane by 2015 ;
- Expand Rehabilitation Services to 52 District Hostpitals (DH) by 2015 and 140 DH by 2020;
- Expand CMR network to Oudomxay Province by 2020;
- Develop a Reporting and Monitoring System (Hospital Information System) by 2014

To improve operational capacity in the most UXO contaminated provinces we need new buildings that require the disabled accessibility and safety standards installed in the following locations:

- 1) Five-story building at the Center of Medical Rehabilitation in Vientiane
- 2) To renovate the existing building at the Province of Savannakhet
- 3) To build a new Rehabilitation Centre at the Province of Xiangkhouang

With these new buildings, we would be able to address some key issues:

- Shortage of Medical Rehabilitation infrastructure: (equipment, building, labs ,research centers, and human resource );
- Limit of deaf and blind learning infrastructure, learning curriculum, shortage of teaching staff;
- Limit of vocational training infrastructure;

The proposal definitely will contribute to improve standard of living and basic rights of disabled people. It will enhance our government firm determination to reach the Millennium Development Goals : by 2015, achieving 20% of expanding our rehabilitation down district level and beyond,50% by the year 2020 and 100% by 2025 and reach our target to remove the country from its least developed country (LDC) status by 2020.

## **2. Project Beneficiaries:**

With the new facilities, definitely all of lao people as a whole will benefit from it. But specially the following group of people (including disabled people caused by Unexploded Ordnance) will have a better quality of care:

1. Amputees
2. Leprosy patients
3. Visually and Hearing impaired persons
4. Mental Patients
5. Learning impairments
6. Patients with other physical disabilities
7. Elderly People
8. Students from Medical school (for practical purposes)
9. Staff at CMR

## **VI. BUDGET**

### **1, Estimated Cost**

<b>CMR Project Estimated Cost</b>		Estimated
Item	Description	Cost(in US dollars)
1	Traveling cost	\$2,500.00
2	Training	\$18,500.00
3	Local Consultants	\$50,000.00
4	Computors Equipment & Installation	\$87,700.00
5	Software Costs	\$25,000.00
6	Hospital Information System	\$40,000.00
7	Advertizing	\$2,500.00
8	Medical Equipments	\$200,000.00
9	Facilities Estimated Costs	
	CMR new Facility(Vientiane)	\$2,000,000.00
	Renovation Cost(Savannakhet)	\$100,000.00
	New Facility(Savannakhet)	\$700,000.00
	New Facility (Xiangkhouang)	\$1,200,000.00
	<b>Total Estimated Costs</b>	<b>\$4,426,200.00</b>

**Table 3:** Esyimated Cost

### **2. Source of funding**

- Governmental officials were made aware of the CMR projects and were involved in project formulation. The government will contribute up to 20% of total cost of the project.
- The project management team is working very hard to organize many fundraising events in a very near future. We create brochure and start to send letters for donation to potential donors around the country and abroad.
- NA

## **V. PROJECT IMPLEMENTATION AND MANAGEMENT PLAN**

### **1. Project activities and work plan**

The project is expected to accomplish by the end of 2015. Each task has been assigned to appropriate personnel. The project will be updated regularly throughout the construction process and the project management team will evaluate each task with the assigned agents to ensure the task completion with quality and to make sure activities occur as planned. We are planning to send the progress reports to people involved periodically. Throughout the planning and implementation phases of any activity, the Director of the CMR and relevant CMR staff are regularly consulted with the Ministry of Health representatives and other professionals. Project Management Team Meetings are held on monthly basis unless emergency events occur.

Invoices must be verified by local project coordinator in each location, then revised by the project team leader and one of the advisory Board Member before the financial Officer issued any payment.

### **1. CMR Projects Tasks and Assignments**

No	Task Name	Duration	Start	Finish	Resource Names
<b>Schedule</b>	<b>Cmr</b>	<b>646 days</b>	<b>Fri 5/10/13</b>	<b>Sat 10/31/15</b>	
<b>1</b>	<b>Gathering Information</b>	<b>9 days</b>	<b>Tue 5/14/13</b>	<b>Fri 5/24/13</b>	
	Visit University and Hospital of Khonekene, Thailand	1 day	Tue 5/14/13	Tue 5/14/13	
	Centre of the blinds region 9, KhoneKene, Thailand	1 day	Wed 5/15/13	Wed 5/15/13	
	Visit the Hospital, Savannakhet, Laos	1 day	Tue 5/21/13	Tue 5/21/13	
	Visit hospital at Thakhek, Laos	1 day	Wed 5/22/13	Wed 5/22/13	
	Visit Hospital at Paksane, Laos	1 day	Thu 5/23/13	Thu 5/23/13	
	Visit Regional Hospital and land used for new facility, Xiangkhouang, Laos	1 day	Fri 5/24/13	Fri 5/24/13	
	Project CMR Team meeting	1 day	Mon 5/27/13	Mon 5/27/13	
<b>2</b>	<b>Design Plan</b>	<b>23 days</b>	<b>Wed 5/22/13</b>	<b>Fri 6/21/13</b>	
	New facility Design, CMR at Vientiane	4 days	Wed 5/22/13	Mon 5/27/13	
	New facility Design, CMR at Xiangkhouang	6 days	Tue 5/28/13	Tue 6/4/13	
	Renovation at Savannakhet	4 days	Wed 6/5/13	Mon 6/10/13	

	New facility at Savannakhet	9 days	Tue 6/11/13	Fri 6/21/13	
2	Proposal written	33 days	Fri 5/10/13	Tue 6/25/13	Bounmy Sihaphom,Dr.Ko
3	Estimated Budget Cost	12 days	Sun 6/30/13	Mon 7/15/13	Duangta Sayyasen
4	Braille Translation to Lao Version	43 days	Mon 6/3/13	Wed 7/31/13	Anousack Souphavanh,Bounmy Sihaphom
	Network new Infrastructure	12 days	Fri 6/7/13	Sat 6/22/13	Bounmy Sihaphom
<b>5</b>	<b>Fundraising Project for CMR</b>	<b>119 days</b>	<b>Sun 6/30/13</b>	<b>Thu 12/12/13</b>	
	Contact Potential donors	24 days	Sun 6/30/13	Wed 7/31/13	Dr. Khamphet Manivong,Dr. Khamko
	Put New Donation Boxes in different places	90 days	Sun 6/30/13	Thu 10/31/13	Dr. Khamko
	Brochures	13 days	Mon 7/15/13	Wed 7/31/13	Dr. Khamko
	Fundraising Event	5 days	Sat 12/7/13	Thu 12/12/13	Dr. Khamphet Manivong
<b>6</b>	<b>Estimated Construction Starts</b>	<b>543 days</b>	<b>Mon 9/2/13</b>	<b>Wed 9/30/15</b>	
	CMR at Vientiane	543 days	Mon 9/2/13	<b>Wed 9/30/15</b>	
	CMR at Xiangkhouang	543 days	Mon 9/2/13	<b>Wed 9/30/15</b>	
	Renovation at Savannakhet	543 days	Mon 9/2/13	<b>Wed 9/30/15</b>	
	New facility at Savannakheth	543 days	Mon 9/2/13	<b>Wed 9/30/15</b>	
<b>7</b>	<b>Training</b>	<b>522 days</b>	<b>Tue 10/1/13</b>	<b>Wed 9/30/15</b>	Dr. Khamko
	Teachers	522 days	Tue 10/1/13	<b>Wed 9/30/15</b>	Dr. Khamko
	Nurse	522 days	Tue 10/1/13	<b>Wed 9/30/15</b>	Dr. Khamko
	Doctors	522 days	Tue 10/1/13	<b>Wed 9/30/15</b>	Dr. Khamko
	Office Personnels	522 days	Tue 10/1/13	<b>Wed 9/30/15</b>	Dr. Khamko
8	Medical Equipments	24 days	<b>Wed 9/30/15</b>	<b>Sat 10/31/15</b>	Dr.Thongphet

**Table 4:** Project Timeline

## **VI. Conclusion**

In summary, your contribution for the new facilities, will ensure CMR to continue maintaining quality-assured rehabilitation services for people with disabilities throughout the country. More services will be added and developed and Medical Research centers including Stem cells Research

can be established and introduced for the first time in Laos.

The immediate and long term benefits are tremendous not only to meet the great demand for care of people with physical disabilities but in turn to meet all aspects of Millennium Development Goals of the Ministry of Health and the international obligations on the Rights of Persons with Disabilities. It will also have a great impact on National Socio-Economic Development Plan in efforts to remove Laos from its least developed country (LDC) status by 2020.

Your philosophy to participate in the growth of Laos from long suffering land, the most heavily bombed nation in the history of a mankind where heartbreaking survivors who have lost an arm or leg attending the rehabilitation clinic in almost every day, to become once again a beautiful country with its unique culture ,is undeniable one of the most memorable humanitarian aid in recent memory of Lao People.

## **VII. Appendix**

1. Barbara Lewis is a Physician's Assistant who graduated from Stony Brook University in 1992. <http://maic.jmu.edu/journal/12.1/feature/lewis/lewis.htm>
2. Country Profile on Disability LAO PEOPLE'S DEMOCRATIC REPUBLIC by Japanese In International Cooperation Agency(JICA)
3. Secret War in Laos <http://legaciesofwar.org/about-laos/secret-war-laos/>
4. Ministry of Health (MoH), Lao PDR <http://www.moh.gov.la/>
5. Lao Disabled People's Association on Strategic Plan 2012 – 2015
6. Inclusive Education Initiatives For Children With Disabilities (UNICEF)