

Nepal Earthquake Relief, Reconstruction and Rehabilitation Program (ERRRP) Long Term Program Framework and Plans of Actions

EXECUTIVE SUMMARY

PREPARED BY



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August, 2015

TABLE OF CONTENTS

1. NATIONAL BACKGROUND..... 1

2. NEPAL EARTHQUAKE OF APRIL 25, 2015 1

 2.1 Human and Property Loss 1

 2.1.1 Human Loss 2

 2.1.2 Damage to Houses 2

 2.1.3 Damage to Schools 2

3. GOVERNMENT’S POLICY, PLANS AND PROGRAMS..... 3

 3.1 In Education Sector 3

 3.2 In Housing Sector..... 3

4. EARTHQUAKE RESPONSE OF ROTARY INTERNATIONAL DISTRICT 3292 4

 4.1 Emergency Relief Works and Construction of Temporary Shelters..... 4

 4.2 Long Term Program Framework and Plan of Actions..... 4

 4.2.1 Program Aims, Objectives, Location and Tentative Cost 4

 4.2.2 Institutional Arrangement of ERRRP of RID 3292 5

 • Technical Sub-committees (Design),..... 5

 • Finance and Administration Sub-committee, 5

 • Sub-committee for Preparation of Proposals for Global Grant Application, 5

 • Procurement/Construction Supervision and Monitoring Sub-committee..... 5

 4.2.3 Program Cost 6

 4.2.4 Program Duration: 7

 4.2.5 Involvement of Rotary Clubs..... 8

 4.2.6 Fund Management 8

 4.2.7 Contact Persons in RID 3292..... 8

5. GENERAL APPROACH AND DESIGN AND CONSTRUCTION OF PERMANENT LOW COST HOUSES..... 9

 5.1 General 9

 5.2 Trace out Design Parameters 9

 5.3 Priority of RID 3292 in the Construction of Permanent Low Cost Houses..... 10

PROGRAM FRAMEWORK AND PLANS OF ACTIONS OF RID 3292
NEPAL EARTHQUAKE RELIEF, RECONSTRUCTION AND REHABILITATION
PROGRAM (ERRRP)
EXECUTIVE SUMMARY

1. NATIONAL BACKGROUND

Physical: Nepal is a landlocked country, which lies on the lap of the Himalayas bounded by Tibetan Autonomous Region of China to the north and Republic of India in east, west and south. Geographically, it is divided into three ecological strips – plain land in the south, hilly area in the midland and mountain in the northern belt. Politically, it is divided into five regional development zones and 75 districts. The country covers an area of 147,181 sq. km. Its length is about 885 km from east to west and width varies from 130 to 255 km. The result of National Population Census 2011 has estimated the population of the country at 26.62 million out of which over 83% live in the rural villages.

Socio-economic: Nepal is one of the least developed and poorest countries in the world, with a per capita Income of US\$ 742 (Economic Survey, 2012, Ministry of Finance). 25.16% of the total population live below poverty line. The economy of the country largely depends on the performance of the rural sector.

2. NEPAL EARTHQUAKE OF APRIL 25, 2015

Nepal is the 11th earthquake-prone country in the world. Historical pattern of earthquakes suggests that a great earthquake in the Himalayan region generally occurs in an interval of 80 to 100 years. The 1934 earthquake is the largest disaster event in terms of death toll and property loss.

4 minutes before the clock struck 12 noon local time on Saturday, 25th April, 2015, an earthquake of magnitude 7.6 in Richter scale lasting over 56 second struck **Barpak** of historic district Gorkha of Western Nepal located about 76 km northwest from the capital city of Kathmandu. The earthquake was followed by series of powerful aftershocks including 6.8 magnitudes on April 26 and 7.3 magnitudes on May 12, 2015. More than 300 aftershocks of magnitude greater than 4 have been recorded till August 2015 resulting additional damages of lives and properties. 31 of country's 75 administrative districts have been affected out of which 14 districts were worst affected and declared "**Crisis-hit**".

An estimated 8 million people, almost one-third of the population of Nepal have been impacted by the earthquake and its aftershocks. This earthquake has mainly disrupted the life of the disadvantaged social groups, especially in the rural villages. Most of the heritages in capital cities of Kathmandu Valley have been damaged partially or completely and thus, the loss of heritage will negatively affect the tourism industry of Nepal, thereby weakening the economy of the country itself.

2.1 Human and Property Loss

The damages due to the earthquake was extensive both in terms of human loss and loss of properties.

To overcome the trauma caused by the massive quake is undoubtedly an uphill task. Along with the residents' trauma, the earthquake has an enormous potential to ruin the nation's economy given the losses that could be as much as USD 10 billion according to the initial estimate from the US

Geological Survey. The cost of rebuilding estimated by the Government is USD 6.69 billion. This has added to woes of the country's economy. It has been foreseen that the earthquake will end up pushing an additional 2.5 to 3.5 percent Nepalese into poverty in 2015-2016, which translates into at least 700,000 additional poor (NPC-2015).

2.1.1 Human Loss

As per the update by the Government till 14th May 2015, the total death toll is 8,959 out of which 4,003 are male and 4,950 are female. The total number of injured are 22,322.

The time and day of first earthquake of April 25, 2015 saved thousands of life as Saturday is a holiday in Nepal and all the government/private offices and schools are closed. The death toll of young people could have been much higher considering that nearly 7,000 schools were completely or significantly damaged. Similarly, if the earthquake had struck at night or in working day and not in the middle of the day, there would certainly have been greater casualties.

2.1.2 Damage to Houses

The numbers of damaged houses as per the record published by the Government on May 14, 2015 are as follows:

Fully damaged Government Houses	2,688
Partially damaged Government Houses	3,776
Fully Damaged Private Houses	602,591
Partially Damaged Private Houses	284,482

Media reports indicate that the quake completely damaged over 90 percent buildings in some of the worst-hit hilly districts. The families who lost their houses lost about 40 percent of their total wealth, making them poor. The loss actually increases when the loss of land, and livestock is included.

People, effected by earthquake are living now in tarpaulins, tents and in temporary shelters provided/constructed through support of various organizations including Rotary International District 3292. Shelters using bamboo and corrugated galvanized iron sheets are widely built for the temporary use.

2.1.3 Damage to Schools

As reported by National Planning Commission (NPC) and Department of Education (DoE) of the Government of Nepal, nearly 700,000 schools have been completely or significantly damaged by the earthquake. The other details of damages or loss are as follows:

- **32,145** classrooms destroyed out of which 27,242 are public and 4,903 classrooms are private
- **15,352** classrooms with minor damages. The structural assessment is ongoing, which will provide more complete data
- **999,000** estimated children out of schools due to destroyed/majority damaged classrooms
- **440,000** additional children affected by minority damaged classrooms interrupted schooling and psychosocial impact.

With the houses, school uniforms, books of the children have been buried. School grounds have turned into shelter ground for the earthquake victims. About one million children have been directly

affected and some of them even have become separated from families. **Children are being vulnerable (physically and psychologically) because of long stay at tents, lack of nutritious food, lack of safe drinking water, hygiene and sanitation.**

The overall impact including damages caused by the devastating Earthquake of April 25, 2015 prepared by RID 3292 can be viewed in “Youtube”(Link: <https://youtu.be/dJyQ3ejFCDY>)

3. GOVERNMENT’S POLICY, PLANS AND PROGRAMS

3.1 In Education Sector

Department of Education (DoE) under the Ministry of Education (MoE) will maintain overall responsibility for responding to all educational needs supported by Education Cluster leads (UNICEF and Save the Children) in Nepal and together will provide overall leadership of cluster response, coordinating a group of government, UN, INGO and NGO education stakeholders to collectively respond to the education needs and provide overall leadership and strategic direction.

MoE/DoE along with Save the Children and UNICEF shall share responsibility for cluster activities including assessing needs, developing plans, joint monitoring and developing policies.

Government has formulated short-term (0-1 year), medium-term (1-2 years) and long-term (beyond 2 years) need assessment.

In the long term, all educational institutions need to be **built back better**, following state-of-the-art practices of school safety. The long term needs mainly include institutionalization of mechanisms to ensure that all educational institutions and facilities are disaster resilient.

The Department of Education has also prepared typical design and drawings, which every donor needs to follow with minor changes as approved by DoE.

3.2 In Housing Sector

The Government of Nepal (GoN) is in the process to establish a separate and dedicated Authority namely “**National Reconstruction Authority (NRA)**” to deal with all the matters related to reconstruction/rebuilding efforts due to earthquake.

Different Government Institutions have prepared and published various Policies, Guidelines, Working Procedures and Directives for the aid mobilization by National and International Non-Government Organization, settlement, development and reconstruction of completely damaged houses by the earthquake etc.

Department of Urban Development and Building Construction (DUDBC) under Ministry of Urban Development is the responsible government agency to deal with all the matters related to reconstruction of permanent houses, which has prepared and published the “**Working Procedures for the Grant Assistance Flow for the Reconstruction of Houses, Completely Damaged by Earthquake.**” DUDBC has established Central Project Implementation Unit (PIU) and District Project Implementation Unit (DPIU).

The other policy documents, guidelines and directives published by other Government Institutions are as follows:

- (1.) Post Earthquake Recovery and Reconstruction Policy published by National Planning Commission on July 15, 2015

- (2.) National and International Non-Governmental Aid Mobilization Directive, 2015 by Ministry of Finance
- (3.) The Ministry of Federal Affairs and Local Development of the Government has formulated and published “**Basic Guidelines related to Development of Settlement, Urban Planning and Building Construction 2015**” for the safe and earthquake resistant building construction and well managed settlement for post-earthquake management.
- (4.) National Planning Commission has also published a Report on “**Post Disaster Needs Assessment (PDNA)-2015**” for post-earthquake management. The PDNA was carried out in 31 earthquake affected districts and has covered **23 thematic** areas.

The Government has launched the national housing reconstruction programme from 26th June 2015. This national programme for reconstruction will consist of providing a cash subsidy to households accompanied with a large scale, decentralised, technical assistance and training programme to support households to achieve compliance with construction standards. The Shelter Cluster (SC) will support the SC partners to engage with the GoN and donors through the Recovery and Reconstruction Working Group. This Working Group will be led by UN Habitat and supported by the SC. The objective of the Working Group is to provide agencies, who plan to work on recovery and reconstruction with the space to engage with the GoN on the planning and roll out of the housing reconstruction programme.

4. EARTHQUAKE RESPONSE OF ROTARY INTERNATIONAL DISTRICT 3292

4.1 Emergency Relief Works and Construction of Temporary Shelters

Right from day one of the tragic event, RI District 3292 has been totally involved in providing immediate relief services through Emergency Rescue and Relief Programs in two phases as follows with the involvement of Rotarians, Rotaractors, Interactors, RCC Members, Volunteers and by working together with INGOS, NGOS, Armed Police Force, Nepal Army, Nepal Police etc

1st phase: Distribution of relief supplies such as shelter box, tents, tarpaulins, blankets, mattress, food, medicines, safe drinking water, soap etc and medical care through health camps.

2nd phase: Construction of Temporary Shelters to protect the earthquake victims from the monsoon rain with roofs using corrugated galvanized sheets plus temporary toilets for those families, who are in dire need of a safe shelters.

RID 3292 has also prepared a video on the impact and damages caused by the Earthquake, which can be viewed in “Youtube” (Link: <https://youtu.be/dJyQ3ejFCDY>).

4.2 Long Term Program Framework and Plan of Actions

With the end of rescue/relief operation and construction of temporary shelters, now there is an urgency to prepare and implement the strategy for the rehabilitation and reconstruction process.

Hence, Rotary International District 3292 has decided for settlement of displaced people by providing them permanent low cost, safe and secure housings and construction of social infrastructures such as school buildings and has prepared this Long Term (5 Years) Program Framework and Plan of Actions for Earthquake Relief, Rehabilitation and Reconstruction Program (ERRRP)

4.2.1 Program Aims, Objectives, Location and Tentative Cost

The proposed Earthquake Relief, Reconstruction and Rehabilitation Program (ERRRP) of RID 3292 aims to **build 1,000 plus permanent low cost houses** and extend software support (e.g. water

supply, toilets, school furnitures, computers, libraries etc) to 140 primary schools upto grade 5 in the 14 worst affected districts within 3 to 5 years.

RI District 3292 will select clusters or villages with houses more than 50 in one Cluster/Village and will rebuild not only houses but also community halls, school buildings, health post etc in an integrated manner.

In each of the 14 worst effected districts, 10 schools will be constructed. Thus, a total of 140 primary schools with 5 classrooms and 2 additional rooms for teachers and other school staff will be constructed through this program. A Memorandum of Understanding (MoU) has already been signed between RID 3292 and the Federation of Nepalese Chamber of Commerce and Industry (FNCCI) to construct these 140 school buildings in which FNCCI will construct the school buildings (civil works part) and Rotary District 3292 will provide other software facilities such as drinking water, toilet, benches, computers, stationeries etc mainly through **Global Grant**.

The tentative estimated cost of houses and software components per school are as follows:

- **Estimated cost per house = US\$ 3000 to US\$ 5000 depending upon location**
- **Total cost of 1000 houses =US\$ 3 to 5 million**
- **Cost for software part for one primary school = US\$ 15,000-US\$ 20,000**
- **Cost per school room = US\$ 3,000**
- **Cost per school toilet complex = US\$ 3,500-US\$ 4,500**

4.2.2 Institutional Arrangement of ERRRP of RID 3292

The proposed Program will be carried out with the active leadership of RID 3292. RI District 3292 has already established Disaster Relief Fund Committee to tackle disaster in the country, which has been enforced through its By-Laws. On the recommendation of District Disaster Relief Fund Committee and as advised by the Council of Governors, a Special **Program Steering Committee (PSC)** has been formed to deal with the earthquake relief, rehabilitation and reconstruction programs (ERRRP) to be implemented by RID 3292. This Committee shall function and govern under District 3292 framework and will complement the sitting District Governor every year in Earthquake Relief, Rehabilitation and Reconstruction Program. The Committee will prepare Policies, Plans, Program and Strategy, which will be finalized in Consultation with the District Governor.

The Steering Committee comprises of the following members:

- (1.) Past District Governor (PDG) Rtn. Tirtha Man Sakya-Chair
- (2.) District Governor (DG)- Ex-Officio
- (3.) Immediate Past District Governor (IPDG)- Ex-Officio
- (4.) District Governor Elect (DGE)-Ex Officio
- (5.) District Governor Nominee (DGN)-Ex Officio
- (6.) Treasurer
- (7.) Member Secretary

In addition, for the effective management and efficient implementation of the Program, following 7 Sub-committee or units have been formed:

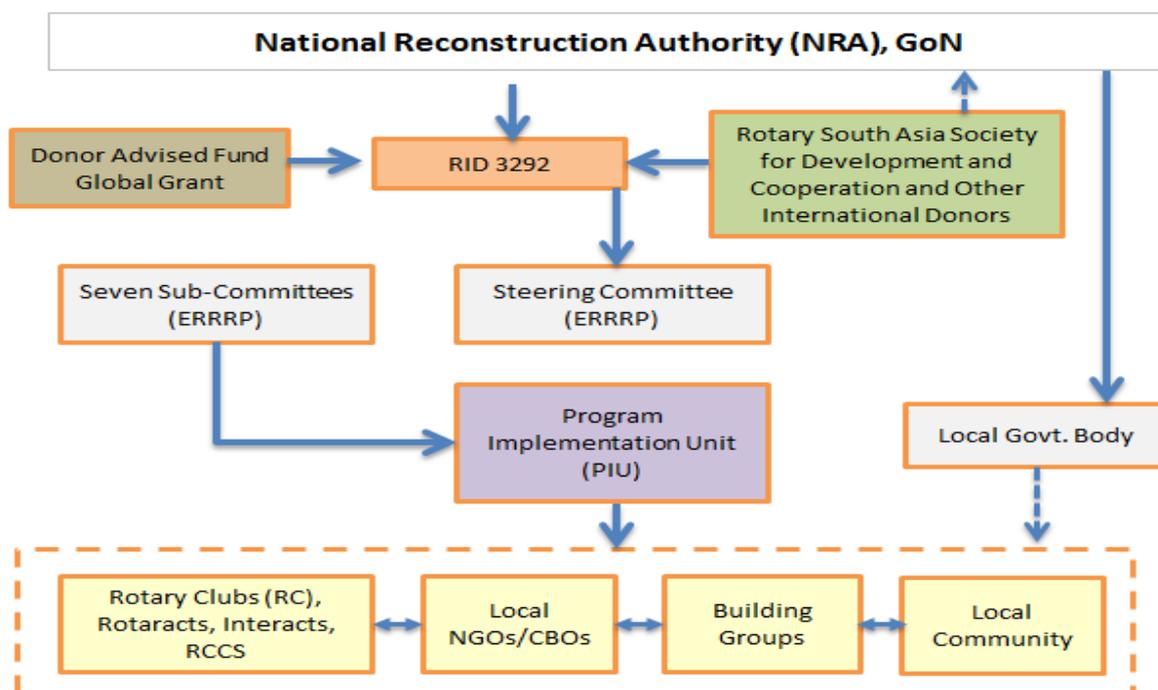
- **Technical Sub-committees (Design),**
- **Finance and Administration Sub-committee,**
- **Sub-committee for Preparation of Proposals for Global Grant Application,**
- **Procurement/Construction Supervision and Monitoring Sub-committee**
- **School Support Sub-committee**

- Website and Publication Sub-committee and
- Emergency Relief Sub-committee

Terms of Reference for the Steering Committee and for Sub-committees have been prepared.

The proposed Institutional Arrangement of ERRRP is shown in the following **Figure**:

Institutional Arrangement of ERRRP



The Program Implementation Unit (PIU) will comprise of permanent Technical and Administrative Staff to carry out day to day activities of ERRRP. Apart from above, support from four Institutional Groups as follows at various levels is envisaged.

- (1.) Government Organizations
- (2.) Donor Agencies
- (3.) RID 3292
- (4.) Working Groups in the Field

4.2.3 Program Cost

The total cost of the ERRR Program is envisaged to be US \$ 9.08 million as per the breakdown given in the following Table:

Program Cost

Program Headings	Qty	Units	Rate (US\$)	Total Amount (Mil US \$)	Remarks
Fund for Construction of Houses	1,000	Per Houses	3,000 to 5000	4.00	Average Cost
Schools	140	Per	20,000	2.80	School Furnitures,

		School			Toilet, Computers, Library etc
Primary Community Facilities	16	Per Clusters	20,000	0.28	CH, RWH, Bio-Gas, Solar Light etc
Sub Total				US\$ 7.08	
Cost for Emergency Relief Works	5%			0.31	
Management Cost	10%			0.62	
Total including Emergency Relief Works and Management Cost				8.13	
Inflation and Contingencies	15%			1.07	
GRAND TOTAL				US\$ 9.08	
<i>RWH : Rain Water Harvesting, CH-Community Hall</i>					

4.2.4 Program Duration:

The program is expected to last for five Rotary Years. The first Rotary Year (2015-16) shall be dedicated for analysis and planning and also commencement of construction in 2 to 3 clusters from November 2015. The full fledged construction works shall begin next year and shall continue till RY 2018-19. The assessment of results and evaluation shall be carried out in the fifth year. The remaining construction works, if any, shall also be carried out simultaneously in the final year.

Table 6: Program Cycle

			Houses	Schools	Clusters
1st Year	RY 2015-16	Percent	ANALYSIS & PLANNING PHASE & Commencement of Construction from Nov 2015 (about 150 houses and 10 schools) in say 2 Clusters		
			ACTION & MONITORING PHASE		
2nd Year	RY 2016-17	20%	200	50	4
3rd Year	RY 2017-18	30%	300	50	5
4th Year	RY 2018-19	350%	350	30	5

5th Year	RY 2019-20	ASSESSING RESULTS & EVALUATION PHASE			
Total		100%	1000	140	16

4.2.5 Involvement of Rotary Clubs

The Rotary Clubs in the District 3292 will take part in this Program in the following ways:

- By participating in selecting the clusters/villages on the basis of the cluster selection criteria and assisting NGOs/CBOs to do so.
- By participating in Social Survey
- By involving Club members, Rotaractors, Interactors, RCCs in the overall implementation of the Program
- By taking charge of one to several clusters for the construction works adhering to the standard working procedure and design guideline as mentioned in the Program Framework etc.

4.2.6 Fund Management

The Rotary Fund generated through earthquake relief, rehabilitation and reconstruction initiatives will be used for this program. A separate account as follows has been opened to receive funds:

- **Name of the Bank: NMB Bank Limited, Nepal**
- **Account Holder: RI District 3292 Disaster Relief Fund**
- **Account Number: 00100005455A**
- **Swift Code: NMBBNPKA**

The address of fund receiver RID 3292 is:

Rotary International District 3292,

Rotary Hall, Thapathali,

Kathmandu, Nepal

And the address of the bank is:

NMB Bank Limited

Babarmahal, Kathmandu, Nepal

There is a separate Account and Administrative Sub-committee or Unit, which will have a permanent Senior Account Officer with necessary support staff, who will be responsible for the day-to day account keeping and fund management for transparency.

The fund will be channelized through Rotary Clubs. The Clubs alone or in group may participate in this initiative. The Club also may submit the proposal to the District and the Club itself should take active leadership in its implementation. **An internationally reputed Audit Firm will be hired to audit the financial aspects of the project** for submission to Rotary International and a separate reputed Nepalese Audit Firm will be hired for preparing the Audit Report for Submission to the Government of Nepal.

4.2.7 Contact Persons in RID 3292

For any queries related to ERRRP, the following persons can be contacted:

- (1.) **Rtn. Keshav Kunwar**
District Governor (2015-16), RID 3292
Email ID: dgkeshav1516@rotary3292.org; k.kunwar@silt.com.np; info@silt.com.np
Mobile: +977-9851020711

- (2.) **PDG Rtn. Tirtha Man Sakya**
Chair, Earthquake Relief, Rehabilitation and Reconstruction Steering Committee
Email: tirtha_sakya@yahoo.com
Mobile: +977-9851026534

5. GENERAL APPROACH AND DESIGN AND CONSTRUCTION OF PERMANENT LOW COST HOUSES

5.1 General

The approach and working methodology will follow the best practice Key Principles recommended by Shelter Cluster: **Technical and Intervention Modalities Guidance: Draft 1-Nepal Shelter Cluster 21/5/2015 Version**. This is somewhat in line with the **Post Earthquake Recovery and Reconstruction Policy** draft prepared by the National Planning Commission, Government of Nepal on July 15, 2015, which RI District 3292 will adopt for any reconstruction project. Relevant action plan of the policy are as follows:

- Promote self build process
- Maximize use of local material and labor
- Earthquake resistant building technology and government financial assistance to go hand in hand
- Maintaining equality in the financial assistance to be provided to the families affected by the earthquake
- Manage completely damaged houses in the urban areas
- Build emergency community buildings in the cities
- Run massive awareness campaigns of earthquake resistant building technology

Moreover, while targeting an area for reconstruction, RI District 3292 will follow two approaches (**Strategic and Technical Guidance Version 1: Shelter Cluster**):

- (1.) **Geographical Targeting:** taking into account the existing hazards and pre-empting monsoon hazards (i.e. Floods and landslides that will further impact displacement) and, within those identified areas
- (2.) **Socio-economic Targeting:** taking into account factors such as the family composition, along with a family's capacity to recover (for example what resources are available for rebuilding, including salvaging and market resources and access)

Further, there is the issue of final deliverance too, which has also been clearly covered in Shelter Cluster **Technical and Intervention Modalities Guidance: Draft 1**

5.2 Trace out Design Parameters

In design, construction and technology of permanent low cost houses, points as follows will be considered:

- Materials should be easily available, easily accessible and cheap
- Construction methodology should comprise, easier technology and strengthening the existing structure
- Building constructed should merge in the surrounding context and cultural aspect of the people

5.3 Priority of RID 3292 in the Construction of Permanent Low Cost Houses

The priority of RID 3292 will be the construction of permanent low cost rural houses.

The building construction technology will be earthquake resistant and appropriate in the local context. It will also be as per the government guidelines and conform with the post earthquake reconstruction policy.

- Government of Nepal has approved about 25 different typical designs and drawings for earthquake proof permanent low cost houses
- Few design options have been developed by ASF Nepal/A&D as per their study on vernacular architecture of Rasuwa and Sindhupalchowk. These reflect the typical housing styles of those areas.
- Nepal Society for Earthquake Technology (NSET) has also developed basic house designs suitable for expansion.

RID 3292 will generally follow the above mentioned typical design/drawings.

Users Committees shall be formed, which will include the local community and the related authorities. The design will be prepared and implemented with the consensus of the Users Committee. RID 3292 will hire required number of architects and engineers who have good knowledge in the above construction technology and the ability to produce innovations whenever needed.