

Resettlement Plan

April 2014

BHU: SASEC Road Connectivity Project

Nganglam-Dewathang Highway and Pasakha Access Road

Prepared by the Department of Roads, Ministry of Works & Human Settlement, Royal Government of Bhutan for the Asian Development Bank

CURRENCY EQUIVALENTS

(as of 12 March 2014)

Currency unit	–	Bhutanese Ngultrum
Nu 1.00	=	\$ 0.01637
\$1.00	=	Nu 61.0800

–

ABBREVIATIONS

AC	-	acre
ADB	-	Asian Development Bank
BSR	-	Bhutan Scheduled Rates
DAO	-	Dzongkhag Agriculture Officer
Dec/	-	decimal (100 decimal=1 acre)
DFO	-	Divisional Forestry Officer
DoR	-	Department of Roads
DP	-	Displaced People
EA	-	Executing Agency
FGD	-	Focused Group Discussion
GT	-	Geog Tshogdae (Block Level Development Committee)
HH	-	House hold
Km	-	Kilometre
LRO	-	Land Record Officer
MoAF	-	Ministry of Agriculture & Forests
MoWHS	-	-Ministry of Works and Human Settlement
NFE	-	Non Formal education
Nu	-	Ngultrum (Bhutanese Currency)
NLC	-	National Land Commission
PAVA	-	Property Assessment and Valuation Agency
PMO	-	Project Management Office
PMU	-	Project Management Unit
RBA	-	Royal Bhutan Army
RGoB	-	Royal Government of Bhutan
RNP	-	Road Network Project
SPS	-	Safeguard Policy Statement
ToR	-	Terms of Reference

NOTE

In this report, "\$" refers to US dollars.

This resettlement plan is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. Your attention is directed to the "terms of use" section of this website.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
A. The Project Background.....	i
B. Methodology	i
C. Sub-Projects Impacts (Land Acquisition & Resettlement).....	i
D. Socioeconomic profile of affected households.....	iii
E. Consultation, Community Participation and Impact Mitigation	iii
F. Policy Framework.....	iv
G. Resettlement Budget and Financing.....	v
H. Grievance Redress Mechanisms.....	v
I. Monitoring and Evaluation	v
I. PROJECT DESCRIPTION.....	1
A. General	1
B. Project Background.....	1
C. Profile of the Project Area	2
D. Subprojects Benefits and Impacts	2
E. Measures to Minimize Impact.....	3
F. Scope and Objectives of the Resettlement Plan (RP)	3
G. Approach and Methodology	4
H. Eligibility	5
II. SCOPE OF LAND ACQUISITION AND RESETTLEMENT	6
A. Nganglam-Dewathang Section.....	6
1. Loss of Land	6
B. Ownership Pattern	6
C. Magnitude of Loss.....	6
D. Options of Compensation.....	7
2. Loss of Structures	8
3. Community Resource Property	10
4. Loss of Trees	10
5. Vulnerable households affected in the Sub-Project	10
6. Summary of Impacts	11
B. Pasakha Access Road Subproject	12
III. SOCIO-ECONOMIC INFORMATION AND PROFILE OF AFFECTED HOUSEHOLDS	14
A. Demography and Household Composition	14
B. Occupational Pattern.....	14
C. Education level.....	15
D. Land use system	15
E. Area and Production of Crops	16
F. Livestock owned.....	17
G. Main sources and levels of annual income	17
H. Expenditure pattern.....	18
I. Displaced Households.....	18
IV. PUBLIC CONSULTATION AND DISCLOSURE OF INFORMATION.....	19
A. Objectives of Consultation Meetings	19
B. The Consultation Procedure.....	19
C. Scope of Consultation and Issues	20
D. Perceptions, expectations and participation of the community.....	21
E. Benefits from the road project	21
F. Impact of the loss of land and property.....	22
G. Financial/Income Implications to the households.....	22

H. Findings of the Focus Group Discussions	22
I. Plan for Further Consultation in the Subproject	24
J. Disclosure of RP	24
V. RESETTLEMENT POLICY, LEGAL FRAMEWORK	25
A. Objective	25
B. ADB Policy on Involuntary Resettlement	25
C. Existing Bhutanese Law	25
D. Summary of key gaps between RGoB Policy and ADB SPS	28
E. Resettlement Principles for the Project.....	26
F. Valuation of the affected land	28
G. Valuation of affected structures	29
H. Valuation of cash crops/ fruit trees/ annual crops	29
I. Income Restoration Measures.....	29
J. Cut-off Date.....	30
VI. ENTITLEMENTS, ASSISTANCE AND BENEFITS.....	31
VII. RESETTLEMENT BUDGET AND FINANCING	35
A. Resettlement overall cost estimates	35
VIII. INSTITUTIONAL ARRANGEMENTS	37
A. Institutional Requirement.....	37
B. Resettlement Management	37
IX. GRIEVANCE REDRESS MECHANISMS	38
A. Procedures and Time Frame for Grievance Redress	38
X. IMPLEMENTATION SCHEDULE	39
XI. MONITORING AND EVALUATION	40
A. Internal Monitoring	40
B. Reporting Requirements	40
C. External Monitoring	40

ANNEXURES

- Annexure 1 : List of affected land
- Annexure 2 : List of affected structures
- Annexure 3 : List of affected trees
- Annexure 4 : List of vulnerable households
- Annexure 5 : List of participants in meetings and FGDs
- Annexure 6 : Census Survey Questionnaire

EXECUTIVE SUMMARY

A. The Project Background

1. The Royal Government of Bhutan (RGoB), through the Department of Roads (DOR) and the Phuentsholing Thromde (PT), has proposed to implement the SASEC Road Connectivity Project with financial the assistance of the Asian Development Bank (ADB). The Project subprojects will be: (i) 68km of National Highway between Nganglam and Dewathang; (ii) 1.2km access road from an Indian border constructed at Pasakha area, (iii) a mini-dry port in Phuentsholing and Alay land custom station; and (iv) about 2.7km of bypass road in Phuentsholing city. This Resettlement Plan covers two subprojects: (i) the National Highway between Nganglam and Dewathang (68km) (NH), and (ii) Pasakha Access Road (PAR). Both subprojects will be implemented by the DOR.

2. This Resettlement Plan prepared for the Nganglam-Dewathang subproject is considered as “Category A” as far as Involuntary Resettlement (IR) is concerned. The resettlement impact is significant.

B. Methodology

3. The affected households list as it appeared in the RP 2012 was reviewed based on the final detailed designs and road alignment. A final fresh list of all affected households and affected assets is presented. A census survey covering all affected households was carried out using a structured questionnaire. Data was collected from primary and secondary sources including field visits and interviews with the project affected people, groups and communities. Consultations were held with affected families/groups (including women headed households), and their specific issues/impacts were collected. Assessment and verification was done on assets lost by individual households, community, government and corporations. The resettlement plan is prepared based on the resettlement policy framework. Based on entitlement matrix a compensation plan is proposed to the affected households. The proposed grievance redress mechanism and specify roles and functions for grievance handling at different levels was reviewed and improved based on consultations with the affected people. Training cum workshop programme on the ADB safeguard mechanisms has been conducted for the main stakeholders of the two Dzongkhags.

4. The Project has its objectives of avoiding involuntary resettlement wherever possible, by means of (i) conducting extensive public consultations with the communities for alignments selection; and (ii) adopting an appropriate technical design, which leads to minimization of the resettlement impact. The resettlement will involve physical displacement of 8 households.

5. The finalized Resettlement Plan defines principles guidelines and processes that will be used to address the adverse social impacts from land acquisition and involuntary resettlement. The RP also defines the legal, institutional and implementation framework to guide the compensation for lost assets, livelihoods, community property, and resettlement and rehabilitation of project affected people in accordance with the Bank’s Policy and RGOB guidelines and legislation.

C. Sub-Projects Impacts (Land Acquisition & Resettlement)

6. As per findings of the 100% census of affected land and non-land assets, the subproject impacts can be broadly classified as (i) impacts on private land, (ii) impacts on private structures

and fruit trees, (iii) impacts on government and Corporation assets, (iv) impacts on livelihoods due to loss of private properties and (iv) loss of common property resources.

7. **Loss of Land:** The land, structure and trees impacts were assessed from its distance from the center line (30 meters corridor for rural land and 7.5 meters corridor for Dewathang municipality). A total of 62.81 acres is private land owned by 201 households will be affected. All the plots are registered and owned by the households in single family. In Samdrup Jongkhar, 42 households losing less than or equal to 10 decimals of land will receive cash compensation while 31 households will receive land for land. In Pema Gatshel, 47 households will receive cash compensation for land and 81 households will receive land for land. Majority of the affected households are losing less than 10% of land holding.

8. **Loss of Structures:** Based on the social survey and design data it is estimated that a total of 28 private structures will be affected. All the structures will be 100% affected since main structures are semi-permanent in nature and integrity of the structure will be fully compromised even if only part of the structure is within the RoW. 11 main structures of semi-permanent and temporary in nature will be affected and 17 secondary structures will be affected.

9. **Impact on trees:** There are 135 affected households losing cash crops mainly oranges, banana, mango areca nut and bamboo. There are a total of 14,710 private trees to be affected in the subproject. The majority of the trees to be affected are orange, bamboo and banana. A total of 1,343 orange trees are affected although most of the trees are infected by citrus greening.

Table 1: Summary of sub-project impacts (Nganglam-Dewathang)

Impacts		Number
1	Number of affected households	204
2	Private land affected (acres)	62.81
3	Government land affected (acres)	2.48
4	Number of households receiving cash compensation for affected land	90
5	Number of households opting for land compensation	111
6	Numbers of plots affected	290
7	Displaced households losing 10% or more productive assets	50
8	Number of displaced persons losing 10% or more productive assets	321
9	Physically displaced households	8
10	Number of vulnerable households	55
11	Non- title holders (households)	3*
12	Residential structure	8
13	Commercial structure	2
14	Residential + commercial structure	1
15	Secondary structures (fences, gates, walls, and etc)	17
16	Government Structures	35
17	Community assets	2
18	Number of private trees affected	14,710

Note: 1.The data is based on the cadastral survey of the National Land Commission. After the better begging and demarcation the numbers may change slightly.

2. Structures fall under 3 categories (permanent (concrete flooring, CGI sheet roof, brick foundation, semi-permanent (wall made of wood, floor concrete, roof CGI sheet) and temporary (no flooring, wall made from bamboo and roof plastic)
3. The nontitle holders have 16 persons

10. **Pasakha Access Road.** The land acquisition for the PAR subproject is not significant. There will be 1 household affected by the development of a new bridge (Bhalujhora Bridge). There will be two structures affected (one main and one secondary) and the land requirement is 0.04 acres.

D. Socioeconomic profile of affected households

11. The socio-economic survey covered a total of 197 households from 16 villages of 3 geogs under Nganglam Dungkhag and Dewathang Gewog of the two Dzongkhags (Pema Gatshel and Samdrup Jongkhar). The census survey on social assessment was targeted to cover all affected households of the project area. Majority of the household members belong to the age group of 18 - 56 years. The overall female male ratio is 1:1.2. Of the 197 households surveyed 57 households (28.9%) are headed by females. The occupation pattern of the affected households is 319 members (25%) actually work in the farms. However, one thousand members (77%) depend on agriculture for their livelihood. There are 365 (28%) students, followed by civil servants (14%), monks (4%), businessmen (4%) and army (1%). Other skills among the members include weaving 278 (21.5%), carpentry 44 (4%), and mason 9 (1%). Among the head of the households 38% were farmers, 21% other jobs, 7% business, and 21% did not respond. Among the affected households, all members are Buddhists and belong to Sharchop ethnicity. Thirty-seven percent of the members of the households are illiterate, 25 % studied up to primary level, 19% attained high school level education, 6% are graduates and 3% with monastic education.

12. The main cereals grown include maize, minor cereals (buckwheat, wheat, millet) and rice. Maize is the main crop grown in terms of acreage and production. Other crops grown include orange, vegetables and Ginger mainly grown as cash crops. Eighty-three percent of the affected households reported that the food production is enough to meet their requirement. Only 4 households reported that there are seasonal food shortages. The households with limited land holdings report that there are not enough marketable surpluses.

13. Major source of income of the affected households include sale of agricultural and livestock products, business, salary, carpentry, and cash remittances received from the employed relatives in the country, sale of. Weaving is mainly done by women. The annual average household income for the year 2012 was Nu 52,299.

14. The households mainly incurred expenditures on children education, purchase of essential food items, repair of houses, hire of labor, expenses on hire of labor, expenses on health, purchase of clothes and contribution for Rimdo. The average annual household expenditure was Nu 23,220 which is less than the annual income. This does not really mean there is cash surplus. There could be a under reporting on expenditure of the households since proper records are not maintained.

E. Consultation, Community Participation and Impact Mitigation

15. Consultations and discussions were held along the subproject with the affected families and other stakeholders including village heads, heads of households, women's groups, farmers,

business communities, and other vulnerable APs like people living below poverty line. The primary stakeholders of the Project have been identified as those residing in and around the vicinity of the proposed road. Apart from the APs, the other stakeholders identified are; MoWHS (DOR), MoA, (Land and Survey Division) and Dzongkhag Administration (District Agriculture Officer [DAO]), Finance Officer (FO), Land Record Officer (LRO), Gup, and Mangiap and village Headmen.

16. Focus group discussions were conducted with mainly the affected households at Dezama, Chokorling and at Dewathang during the period 19 June 2013 and 20-27 September 2013. These meetings were organized to get wider public input from both the primary and secondary stakeholders. A total of 166 affected households participated in the discussions. They said that they will provide full support and cooperation for the implementation of the road project. Benefits from the project included: (i) enhanced agricultural production, (ii) enhanced services on education, (ii) Improved health services; and (iv) easy to travel within Bhutan.

17. **Disclosure of RP.** To maintain adequate transparency in planning and to ensure further active involvement of DPs and other stakeholders, the sub-project information will be disseminated through disclosure of Resettlement Planning document. A resettlement information leaflet containing information on compensation, entitlement and resettlement management adopted for the sub-projects will be made available in local language and distributed to DPs. Each DP will be provided information regarding specific entitlements. The DoR/Dzongkhag/Dungkhag officials will keep the DP informed about the impacts, the compensation and assistances proposed for them and facilitate addressing any grievances. A copy of the RP will be disclosed through the DoR, MoWHS website and also in the ADB website.

F. Policy Framework

18. The legal framework and principles adopted for addressing resettlement issues in the Project have been guided by the existing legislation and policies (Land Act of Bhutan amended in 2007, Land Compensation Rates 2009 (PAVA), Cash Compensation Rates for fruit trees 2009, Department of National Properties, Ministry of Finance, Cash Compensation Rate for Private Forest trees 2010, Department of National Properties, Cash Compensation Rate for Fodder trees, Department of Livestock Animal Nutrition Division, National Center for Animal Nutrition, Bumthang and BSR 2012) and Bhutan Scheduled Rates (BSR 2012) for the affected structures.

19. The ADB has adopted Safeguard Policy Statement (SPS) 2009 including safeguard requirements for environment, involuntary resettlement and indigenous people. The objectives of the Safeguard Policy Statement 2009 (SPS) is to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups.

20. The Entitlement Matrix (Table 32) has been formulated according to the resettlement principles for this Project and specifically reflects various types of losses resulting out of this particular sub-project and specific compensation and resettlement packages.

21. Compensation for the lost assets to all displaced persons will be paid on the basis of replacement cost. Resettlement assistance for lost income and livelihoods will be provided to the affected households. Special resettlement and rehabilitation measures will be made

available to the “Vulnerable Group” comprises of DPs living below poverty line (BPL) and women headed households.

22. The groups of people entitled/not entitled to compensation and assistance under the project have been defined. The project will provide entitlements to rehabilitate persons who lose their land and other property. The specific entitlements are presented in the Entitlement Matrix which is applicable to the Rural Access Projects and which accommodates the provisions of the RPF and the laws of Bhutan.

G. Resettlement Budget and Financing

23. The compensation and assistance cost will be borne by the Project. The total budget needed for the resettlement is 23,089,338.

H. Institutional Arrangements

24. For implementation of RP there will be a set of institutions involved at various levels and stages of the Project. The primary institutions who will be involved in this implementation are the following; (i) Department of Roads, (ii) Dzongkhag (District Administration), (iii) Project Management Office, (iv) Dzongkhag Land Record Officer, Dzongkhag Survey Officer (v) Surveyors, (v) Grievance Redressal Committees, and (v) Supervision Consultant.

I. Grievance Redress Mechanisms

25. The Project will be conducted with a participatory process with the local communities. Through this, and the provision of good compensation and support mechanisms, acceptance of the Project will be enhanced and complaints reduced. There may nevertheless be individuals or groups who feel that they are not given adequate support, or that their needs are not properly addressed. The Project will therefore establish a Grievance Redress process in the existing mechanism of local committees (Geog Yargay Tshogchung, Dzongkhag Yargay Tshogdu), and the Dzongkhag/Dungkhag which will hear complaints and facilitate solutions. If the issue is not resolved, the individual/group may approach DoR through the office of the local executive engineer. If the issue remains unresolved, people would have the right to approach the higher authority as per traditional practices. In order to ensure that all DPs will have avenues for redressing their grievances related to any aspect of land acquisition and resettlement, detailed procedures for redressing grievances need to be established for the Project.

J. Monitoring and Evaluation

26. The implementation of the Resettlement Action Plan will be monitored as a part of the Project implementation. The monitoring of the implementation of the Resettlement Plan should be conducted on a half yearly basis by the PMU, DoR. The monitoring should include implementation of land acquisition and payment of compensation; verification of the compensation payments to the APs; any grievances and the redress process; financial and physical progress of the road construction and participation of the beneficiary community and affected households; any deviation from the RPs and the reasons thereof; an annual evaluation of the land acquisition and resettlement component of the by PMU DoR.

27. External monitoring will be conducted by Social consultant under Supervision Consultant. The results of this monitoring should be summarized in reports that will be submitted to the Project authorities and to the ADB on a biannual basis.

I. PROJECT DESCRIPTION

A. General

28. The Royal Government of Bhutan (RGoB), through the Department of Roads (DOR) and the Phuentsholing Thromde (PT), has proposed to implement the SASEC Road Connectivity Project with financial the assistance of the Asian Development Bank (ADB). The Project subprojects will be: (i) 68km of National Highway between Nganglam and Dewathang; (ii) 1.2km access road from an Indian border constructed at Pasakha area, (iii) a mini-dry port in Phuentsholing and Alay land custom station; and (iv) about 2.7km of bypass road in Phuentsholing city. This Resettlement Plan covers two subprojects: (i) the National Highway between Nganglam and Dewathang (68km) (NH), and (ii) Pasakha Access Road (PAR). Both subprojects will be implemented by the DOR.

B. Project Background



Figure 1: Road map

29. For the NH, the subproject road starts at Nganglam Dungkhag of Pema Gatshel Dzongkhag and connects Dewathang Gewog under Samdrup Jongkhag. The subproject will impact road network efficiency in the southern east-west highway missing link and sub-regional connectivity, contributing to expanded economic and regionally-balanced development, leading to poverty reduction. These goals will be achieved by connecting Sarpang-Lhamoizingkha to Nganglam-Dewathang and Samrang-Jomotshangkha. For PAR, it's a 1.2km road from the Indian border connecting to the Pasakha industrial area.

30. This Resettlement Plan is prepared for the Nganglam-Dewathang and Pasakha Access Road subprojects and is considered as "Category A" as far as Involuntary Resettlement (IR) is concerned. The resettlement impact is significant¹.

¹ As per ADB's SPS-2009 and OM Section F-1/OP issued on January 2010, The involuntary resettlement impacts of an ADB-supported project are considered significant if 200 or more persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating).

31. This study, with survey being conducted between June and September 2013, is an update on the Resettlement Plan and social assessment carried out in April-May 2012 by the Department of Roads.

C. Profile of the Project Area

32. The two subprojects will benefit 1,068 households with a population of 8,944 covering 37 villages of Norbugang, Chokorling and Dewathang geogs under Pema Gatshel, Samdrup Jongkhar dzongkhags, and Phuentsholing. (Table 2).

Table 2: Profile of Project Areas

Gewog	Chiwogs	Villages	Nos	Population		
PEMA GATSHEL			HHs	Male	Female	Total
Norbugang	Menchu	Menchu, Satsalo, Tshogtshogri, Gashari,	65	398	270	668
	Gashari	Lolan,Gongpa,	85	369	403	772
	Tsheisingzor	Bawjaw,Tanzema,	52	200	187	387
	Ningsingborang	Tshogporang, Kelikhar,	32	184	115	299
	Norbugang	Tsheisingzor,	49	172	185	357
	Nganglam Throm	Ningsingborang, Norbugang,Laishingri,	53	187	189	376
	Rinchenzor,	Guegribalu,Rinchenzor,	36	188	164	352
	Nganglam	Menchu,Nganglamhro m, Nganglammedap	65	277	242	519
Chokorling	Chokorling	Gazaong, Chokorling,	126	498	477	975
	Arden	Khalatsha,	14	46	58	104
	Yarjewong	Khalaktangzor	14	95	74	169
	Dijama		57	200	205	405
	Kerongh		57	233	230	463
SAMDRUP JONGKHAR						
Dewathang	Chenari	Rishore,Yezore,Bongts	95	420	433	853
	Bongtsho	ho, Goenpa, Kopor,	88	400	430	830
	Rekhey	Khesangteri,	53	222	234	456
	Domphu-Dungkharcholing	Khatey,Rekhey, Khamey, Domphu,	36	158	170	328
	Martang	Kheripam,Dungkarcholi ng, Marthang, Ashikhar, Gerwa	49	166	170	336
CHUKHA						
Phuentsholing	Pasakha	Balujora	42	106	189	295
4	19	37	1068	4519	4425	8944

D. Subprojects Benefits and Impacts

33. The overall subprojects benefit will help people to have improved access to health, education & other social services. By providing improved linkages to new markets, production centers, it facilitates the creation of new economic & employment opportunities. The subprojects are also expected to bring in economic and social changes in the area, which in turn would bring economic prosperity and would lead to poverty reduction.

34. The likely positive impacts of the subprojects are as follows:
- will provide direct employment opportunities for the local communities specially for wage workers, petty contractors and raw material suppliers;
 - will provide improved linkages between the village communities and urban center, thus providing improved marketing facilities;
 - people can easily travel to distant places to work;
 - will provide easy access to entrepreneurs to invest in remote areas;
 - will encourage the people building commercial relationships with external agencies;
 - will provide easy access to essential services like schools, health centre, etc; and
 - will increase the awareness level of the local people in health and hygiene, nutrition, living standards, value of education and living in harmony with the natural environment.
 - The Pasakha Access road improvement will indirectly benefit approximately 2600 people, provide direct entry and exit of vehicles between the two countries and decrease the traffic from the existing route from the main gate of Phuentsholing town.

E. Measures to Minimize Impact

35. In order to minimize the impact, adequate attention has been given during the project preparation to minimize the adverse impacts on land acquisition and resettlement impacts.

36. The design of the Nganglam-Dewathang subproject is based on the available gravelled and all weather alignment for single lane traffic with minor widening only for drainage and hard shoulders with minimum land acquisition. The land, structure and trees impacts were assessed from its distance from the centre line (30 meters corridor for rural land and 7.5 meters corridor for Dewathang municipality).

37. The Project has its objectives of avoiding involuntary resettlement wherever possible, by means of (i) conducting extensive public consultations with the communities for alignments selection; and (ii) adopting an appropriate technical design, which leads to minimization of the resettlement impact. The technical design is aimed at best utilization of the available space by avoiding mostly private, public structures and land takes.

38. The land topography and water availability were checked for finalizing the total land compensation as per the land compensation 2009. In three 3 locations (Nganglam, Dewathang and Pasakha) the topography was confirmed to be less than or equal to 30 degree and there are water available in the affected land within 100 meters distance.

F. Scope and Objectives of the Resettlement Plan (RP)

39. The aim of this Resettlement Plan (RP) is to mitigate all such unavoidable negative impacts due to the Project, and to resettle the displaced persons and restore their livelihoods. This RP has been prepared based on the detailed technical design on the basis of 100% census survey findings and consultation with various stakeholders. Previously an RP was prepared based on feasibility study, which was conducted in November 2011. The plan

complies with *ADB Safeguard Policy Statement 2009*², which aims to protect the rights of the displaced persons and communities. The issues identified and addressed in this document are as follows:

- assessment of type and extent of loss of land and non-land assets, loss of livelihood or income opportunities and collective losses, such as community infrastructure and amenities;
- identification of impacts on indigenous peoples, vulnerable groups and
- assessment of other social issues in the Project;
- public consultation and people's participation in the Project;
- assessment of existing legal and administrative framework and formulation of resettlement policy for the Project;
- development of entitlement matrix, provisions for relocation assistance and restoration of businesses/income;
- resettlement and rehabilitation cost estimate including provision for fund; and institutional framework for the implementation of the plan, including monitoring and evaluation.

40. Temporary land acquisition will not be required. However, if land is required for short-term storage of materials or equipment by the civil works contractor during construction, the contractor will enter into a private lease with the land owner for the required land.

G. Approach and Methodology

41. The following approach was adopted to update and finalize the Resettlement Plan document:

- a) The affected households list as it appeared in the RP 2012 was reviewed based on the final detailed designs and road alignment. A final fresh list of all affected households and affected assets is presented.
- b) The final alignments of the road were obtained from DoR to trace the affected assets.
- c) Data was collected from primary and secondary sources which including field visits and interviews with the project affected people, groups and communities.
- d) A census survey covering all affected households was carried out using a structured questionnaire as presented in Annexure 6.
- e) Consultations were held with affected families/groups (including women headed households), and their specific issues/impacts were collected.
- f) Assessment and verification was done on assets lost by households, loss of community resources/infrastructure.
- g) The resettlement plan was updated as per the resettlement policy framework. Based on this an entitlement matrix and a compensation plan is proposed.
- h) The proposed grievance redress mechanism and specify roles and functions for grievance handling at different levels was reviewed and improved based on consultations with the affected people.

² In accordance to ADB Resettlement Policy (1995) and OM F2/BP (2006), resettlement is "significant" when 200 or more people experience major impacts. Major impacts are defined as involving affected people being physically displaced from housing and/or having 10% or more of their productive, income generating assets lost.

- i) A training program (2 days) on the ADB safeguard mechanisms to the Dzongkhags and the DoR staffs at the Dzongkhag level; one in Samdrup Jongkhar and one in Pema Gatsel is conducted.

H. Eligibility

42. The following section defines those who are project affected people and who are eligible for resettlement package under the project. Project affected people include any person or persons or households who because of project activities would have their: (i) standard of living adversely affected; (ii) legally recognized title, or interest in any house, land (including residential, agricultural and grazing land) or any other moveable or fixed assets acquired or possessed, in full or in part, permanently or temporarily, and; iii) place of work or residence or habitat adversely affected, with or without displacement.

- Project Affected Households. All members of a project affected household residing under one roof and operating as a single economic unit, who are adversely affected by the project or any of its components. For resettlement purposes, affected persons will be considered as members of affected households.
- Squatters. People who are occupying land in violation of the laws of Bhutan are not entitled to compensation for loss of land under this policy. However, if such people have uninterrupted possession of land for at least one year prior to the census, they are entitled to resettlement assistance if displaced. All displaced persons are entitled to compensation for loss of assets other than land, in particular, structures and crops.
- Encroachers People who have trespassed into RGOB/private/community land to which they are not authorized.
- Landless/Agricultural Laborer A person who does not hold agricultural land himself or jointly with any family member. Persons who work as agricultural laborers are also placed under this category.
- Vulnerable Group Distinct groups of people who are socially distressed or economically backward and who might suffer disproportionately from resettlement effects.

43. For adverse impacts on community facilities (i.e. places of worship) no financial compensation will be paid directly to individual persons or groups. DoR will rebuild the affected facilities or provide alternatives in consultation with user communities.

II. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

44. The following chapter is organized into two main sections, first for the scope of land acquisition for Nganglam-Dewathang subproject, then for the Pasakha Access Road (PAR) subproject.

A. Nganglam-Dewathang Section

1. Loss of Land

45. A total of 65.29 acres of additional land is required for the subproject, out of which 62.81 acres is private land owned by 201 households and 2.48 acres of affected land belongs to 7 government agencies.

a. Type of Land

46. There are two main categories of land, they are urban and rural. Rural land is then subdivided into 3 main categories, they are: (i) dry land; (ii) wet land; and (iii) orchard. In the rural area where majority of the project area lays, there is no distinction between commercial and residential land. Table 3 presents the type of private land required for the project. The productivity of the lands are low due poor condition of soils, use of traditional varieties, plant diseases, and often crops destroyed by wild animals such as elephant, wild pigs, deer, monkeys. It is also observed that large areas are left fallow due to lack of irrigation water and constant pressure from wild animals. There is shortage of farm labor in most rural areas. Details are presented in Annexure 1.

Table 3: Summary of affected land

Gewogs	Dry land (ac)	Wetland (ac)	Orchard land (ac)	Total (ac)	# of Affected HHs
Nganglam	32.90	1.16	16.60	50.66	128
Dewathang	11.83	-	0.32	12.15	73
Sub Total	44.73	1.16	16.92	62.81	201

Source: Resettlement Census Survey, 2013

47. For the 2.48 acres belonging to 7 government agencies, all land is classified as dry land.

Gewogs	Dry land (ac)	Total (ac)
Dewathang	0.44	0.44
Chorkhorling	2.04	2.04
Total land	2.48	2.48

b. Ownership Pattern

48. All plots are independently owned and there is no joint ownership.

c. Magnitude of Loss

49. Majority of the affected households are losing less than 10% of their land in both of the Dzongkhags. As mentioned in para 46, much of the land along the road is uncultivated or fallow and thus not classified as a productive asset. 63 households stand to lose more than 10% of their land, out of which 34 households are classified as vulnerable due to the severity of loss – classified as owning less than 1.5 acres of land and losing more than 10% to the project. Special attention will be paid to these households during the implementation of the RP and they will be provided with additional assistance. Table 4a details the magnitude of loss. For public land, Table 4b provides the magnitude of loss for the affected plot.

Table 4: Percentage of affected private land by households

% Land loss	No. of Households	Area in acre
0 to 10	138	32.9
11 to 20	27	10.78
21 to 30	15	9
31 to 40	6	3.41
41 to 50	3	1.22
51 to 60	4	0.93
61 to 70	2	0.82
71 to 80	3	1.69
81 to 90	2	1.33
91 to 100	1	0.73
Total	201	62.81

Table 4b: Percentage of affected public land by agency

Scale	No. of entities	Area in Acre
Less than 5%	3	0.19
6 to 15	2	0.25
21 to 30	2	2.04
31 to 100	0	0
Total	7	2.48

d. Options of Compensation

50. The Land Act of Bhutan (2007) states that if the acquired land is less than 0.10 acres (10 decimal) then the affected plot cannot be substituted by land-for-land compensation as the parcel of land to be substituted will be too small. This means that if it is less than 0.10 acre then cash-for-land method of compensation shall be provided based on replacement cost.

51. The substitute land options made by the DPs are recorded as land-for-land (56%) and (44%) will be provided cash for land. However, majority of the DPs preferred substitute government land near to their present settlement. The reasons for land for land compensation are: (i) money will be quickly spent; (ii) save the land for future generation; (iii) land value appreciates every year.

52. Out of 201 households, 111 households (81 in Nganglam and 30 in Dewathang) are eligible for land-for-land compensation. A total of 90 households (47 in Nganglam and 43 in Dewathang) are eligible for cash-for-land compensation where their affected land is less than or equal to 10 decimal. Details are provided in table 5.

53. At the DP's request, if a DP is losing a large percentage of the plot and the remaining land parcel become economically unviable, the local authorities will work together with the DP through the grievance redressal system to find a solution and ensure that the DP's livelihoods is enhanced or at least restored in real terms relative to pre-project levels.

Table 5: Eligibility of Land-for-Land Compensation

SI	Dzongkhags	Gewog	Total area in Acre	Total affected	=/< 10 dec land affected	>10 dec land affected
1	Nganglam	Chorkhorling	44.69	114	44	70
2	Nganglam	Norbugang	5.97	14	3	11
3	Dewathang	Dewathang	12.15	73	43	30
Total			62.81	201	90	111

54. In the project areas, majority of the lands that are affected and to be acquired are all private registered lands. The productivity of the lands are low due poor condition of soils, use of traditional varieties, plant diseases, and often crops destroyed by wild animals such as elephant, wild pigs, deer, monkeys. It is also observed that large areas are left fallow due to lack of irrigation water and constant pressure from wild animals. There is shortage of farm labor in most rural areas.

e. Indirect Impact

55. During the census, none of the households were found to be indirectly impacted by the project. There are no leaseholders affected.

2. Loss of Structures

56. Based on the social survey and design data it is estimated that a total of 28 private structures and 35 government-owned structures will be affected. The 28 private structures are owned by 22 households. All the structures will be 100% affected since main structures are semi-permanent in nature and integrity of the structure will be fully compromised even if only part of the structure is within the RoW. 11 main structures of semi-permanent and temporary in nature will be affected and 17 secondary structures will be affected. Table 6 details the number of affected structures by type.

Table 6: Affected structures by type

SI No	Type of Structures	Number of
Private - Main structure		
1	Semi-Permanent	8
2	Temporary structure	3
Subtotal		11
Private - Secondary structure		
1	Fence	5
2	Water tanks	4
3	HDP/water pipe	5
4	Dry wall	1
5	Jangchub and Tshaha Chorten	2
Subtotal		17
Subtotal Private Main and Secondary		28
Government structures		

1	Water tanks	1
3	Fence	3
4	Water pipe	5
5	Concrete pillar	2
6	Telephone pole	5
7	Electric pole	16
8	Steel gate	1
9	Cable	2
Subtotal Government		35
GRAND TOTAL - ALL		63

a. Usage Pattern

57. Out of the 11 private main structures that will be effected, the usage pattern is detailed below in Table 7. The eight households residing in the residential structures will be physically displaced due to structure being fully affected or partially affected but will no longer be structurally sound. The three commercial entities being displaced are small shops selling grocery items. All displaced households have noted that they will use the salvaged materials and reconstruct the affected structures.

Table 7: Usage pattern of main structures

Type of Structure	Number of Structures	Area (sq feet)
Residential	8	1,780
Commercial	2	737
Residential + Commercial	1	703
Total	11	3,220

b. Indirect Impact on DPs by Loss of Private Structure

58. 3 renter households will be affected due to the implementation of this subproject. The level of impact is summarized in Table 8. The total area that will be affected is 1,535 square feet. For the commercial entities being displaced, they do not employ any employees.

Table 8: Summary of Indirect Impact on DPs by Loss of Private Structure

Household	Location	Affected	Remarks
1	Dewathang	Residential	Self-constructed structure
2	Dewathang	Residential	Self-constructed structure
3	Dewathang	Residential cum commercial structures	Self-constructed structure

c. Loss of livelihood

59. Three commercial entities will be displaced. All the entities are small roadside shops selling basic groceries ran by household members. Based on census survey, all three households have additional sources of income in addition to the shop and the estimate average monthly income from the shop is around Nu. 3,000. All three households will re-establish the shop after reconstruction.

3. Community Resource Property

60. 2 Community resource properties will be impacted by the project.

Table 9: Impact on Community property

	Type of Property	Location	No. of structures
1	HDP Pipe	Nganglam	1
2	Water pipe (steel)- (below lhakhang and near zero point)	Dewathang	1
		Total	2

4. Loss of Trees

61. There are a total of 14,710 private trees to be affected in the subproject affecting 135 households along the alignment. The majority of the trees to be affected are orange, bamboo and banana. A total of 1,343 orange trees are affected although most of the trees are infected by citrus greening. Table 10 provides the overview of affected private trees and Annexure 3 provides detail of trees.

Table 10: Types of affected private trees

Category	Number
Fruit trees	14,575
Private forest trees	106
Fodder trees	29
Total	14,710

5. Loss of Crops

62. Due to the hilly terrain, there are no crops planted in the affected area.

6. Vulnerable households affected in the Sub-Project

63. Out of 204 affected households 55 households are considered as vulnerable for this subproject. For calculation of poverty, Bhutan utilizes a multidimensional approach and there's no monetary amount set for poverty line.³ National estimates are based on population-weighted subgroup estimates from household surveys. Criteria for vulnerability have been determined based on consultation with local community stakeholders. The vulnerability has been assessed based on the following criteria and details can be found in Table 11 and additional details are provided in Annexure 4. 6 households experience multiple vulnerabilities.

- Disabled and old members in the households
- Women-headed poor households
- Food insecure households who depend on their relatives
- Households having less than 1.5 acres of land and losing more than 10% to project (severely affected)

³ National Bureau of Statistics. Bhutan Multidimensional Poverty Index – 2012. Thimphu, Bhutan.

Table 11: Vulnerable households by category

Vulnerable Category	No. of Households
Household with disabled and old members	14
Women-head poor households	4
Food insecure households	2
Households with less than 1.5 acres of land and losing 10% of land (Severely affected households)	41
Total Number of Vulnerable Households	55*

* 6 households experience multiple vulnerabilities

7. Summary of Impacts

64. There are in total 290 affected plots owned by 201 private households, 7 to government and corporation. There are 3 non-titleholder affected households. A total area to be acquired is 65.29 acres for Nganglam-Dewathang national highway construction. Hundred percent of the land to be acquired are dry land and orchard land. In this affected dry land and on other remaining part of the land, people usually grow maize, chillies, tapioca, vegetables, oranges and other fruit trees.

65. The immediate impacts of land acquisition are (i) loss of land; (ii) loss of structures (permanent house, temporary house, water taps, water tanks, fence, stores and shops); and (iii) loss of fruit and fodder trees having economic values.

66. A summary of the project affected assets is presented in Table 12.

Table 12: Summary Profile of Project Affected Assets

Impacts		Number
1	Number of affected households	204
2	Private land affected (acres)	62.81
3	Government land affected (acres)	2.48
4	Number of households receiving cash compensation for affected land	90
5	Number of households opting for land compensation	111
6	Numbers of plots affected	290
7	Displaced households losing 10% or more productive assets	50
8	Number of displaced persons losing 10% or more productive assets	321
9	Physically displaced households	8
10	Number of vulnerable households	55
11	Non- title holders (households)	3*
12	Residential structure	8
13	Commercial structure	2
14	Residential + commercial structure	1
15	Secondary structures (fences, gates, walls, and etc)	17
16	Government Structures	35
17	Community assets	2
18	Number of private trees affected	14,710

Note: 1. The data is based on the cadastral survey of the National Land Commission. After the better begging and demarcation the numbers may change slightly.

2. Structures fall under 3 categories (permanent (concrete flooring, CGI sheet roof, brick foundation, semi-permanent (wall made of wood, floor concrete, roof CGI sheet) and temporary (no flooring, wall made from bamboo and roof plastic)
3. The non-title holders comprises of 16 persons

B. Pasakha Access Road Subproject

67. The land acquisition for the PAR subproject is not significant. There will be 1 household affected by the development of a new bridge (Bhalujhora Bridge). Impact will be on private land and structures only. There are no trees or community resources that will be affected.

1. Loss of Land

68. The one affected household will lose 0.04 acres of land. Since it is less than 10 decimal, the compensation will be in the form of cash-for-land.

Table 13: Level of Impact for PAR

Sl.no	Name of the HH head	Tharm #	Land holding (acre)	Land (acre)	% loss
1	Nala Tshering	120	0.18	0.04	22%

2. Loss of Structure

69. Two structures will be impacted: one main structure and one secondary structure. Both will be affected 100%. The main structure is a residential + commercial structure and the secondary structure is a fence.

Table 14: Structure affected

Sl. no	Name of the HH head	Tharm #	Types of Structure Affected	Number of Structures	Area (sq ft)
1	Nala Tshering	120	Fence Temporary structure	1 1	832

3. Socioeconomic Information

70. The affected household is headed by male and consists of 2 males and 4 females. Most household members are uneducated followed by primary to high school levels of education. Business is the main source of income. The household is not vulnerable.

4. Summary of Impact

71. Table 15 provides a summary of impact for the PAR.

Table 15: Summary Subprojects Impacts

Sl.No	Type of Subproject Impacts	Number
1	Total number of plot affected	1
2	Total number of structure affected	2
3	Total area of the land affected (acres)	0.04

III. SOCIO-ECONOMIC INFORMATION AND PROFILE OF AFFECTED HOUSEHOLDS

72. The socio-economic survey covered a total of 197 households from 16 villages of 3 geogs under Nagnglam and Dewathang Dungkhags. The census survey on social assessment was targeted to cover all affected households of the project area.

a. Demography and Household Composition

73. The affected households consist of 1288 people with an average of 6.5 members per household. The household composition by age and gender is given on Table 20. Majority of the household members belong to the age group of 18 - 56 years. The overall female male ratio is 1.0 : 1.2. Of the 197 households surveyed 57 households (28.9%) are headed by females.

Table 16. Household composition by age and gender

Age groups (yrs)	Affected Households		
	Male	Female	Total
< 18 yrs	204	347	551
18-56 yrs	408	215	623
>56 yrs	93	21	114
Total	705	583	1288

a. Occupational Pattern

74. The occupation pattern of the affected households is given on Table 17. Three hundred nineteen members (25%) actually work in the farms. However, one thousand members (77%) depend on agriculture for their livelihood. There are 365 (29%) students, followed by civil servants (14%), monks (4%), businessmen (4%) and army (1%). their skills among the members include weaving 278 (21.5%), carpentry 44 (4%), and mason 9 (1%). There are 157 people below the age of 18 that are not attending school. As reflected in para 76, educational level is quite low in the project area with inadequate connectivity, school attendance rate and enrolment rate is low. Improved connectivity provided by the project will positively impact school attendance. Young children below school age are not included in analysis.

Table 17: Occupational pattern

Occupation type	All members		Head of the households	
	Occupation	%	Occupation	%
Farmer	319	25	74	38
Civil servant	178	14	7	4
Monks	46	4	0	0
Business	46	4	14	7
Army	11	1	0	0
Others	294	23	0	0
Wage workers	0	0	3	2
Other jobs	0	0	42	21
Student	365	28	0	0
No response	0	0	57	29
Total	1259*	100	197	100

* 29 people are young children below school age.

75. Among the head of the households 38% were farmers, 21% other jobs, 7% business, and 21% did not respond. Among the affected households, all members are Buddhists and belong to *Sharchop* ethnicity.

a. Education level

76. Thirty-seven percent of the members of the households are illiterate, 25 % studied up to primary level, 19% attained high school level education, 6% are graduates and 3% with monastic education (Table 18). Young children below school age are not included in analysis.

Table 18: Education level

Education level	Members of households	Percentage %
No education	448	36
Primary	312	25
Class X	235	19
Class XII	140	11
Graduate	79	6
Monastic	37	3
Non Formal	8	1
Total	1259	100.0

a. Land use system

77. The land use practice of the affected household is presented in Table 23. The land use type is predominantly dry land (over 476 acres), followed wet land 205 acres and pasture land 192 acres. Most of the land is owner operated. A significant area under dry land and wet land is kept fallow by the affected households. Labour shortage, wild animal damages and lack of irrigation water are the main reasons for keeping the land fallow. The Average land holding is 4.7 acres per household. The land use practices are described in Table 19 and Table 20 details the land use practices in the area.

Table 19: Land use types (area in acres)

	Dry land	Wet land	Orchard land	Pasture land	Kitchen gardens	Total
Registered area	448.2	204.2	124.9	35.5	104	916.8
Unregistered area	28.0	1.5	3.9	156.5	-	189.9
Total	476.2	205.7	128.8	192.0	104	1106.7
Owner cultivated	246.9	88.5	142.7	2.1	-	480.2
Leased	23.3	0.5	2.4	3.7	-	29.9
Fallow	155.5	32.2	80.4	23.2	-	291.3
Total	901.9	326.9	354.3	221	104	1908.1
Average	2.3	1.0	0.6	0.2	0.5	4.7

Table 20: Land use practices

Land type	Land use practices
Wetland (cultivated)	Wetland is mainly for cultivation of rice in terraced land. It may be irrigated or rain-fed. Rice is planted in June and harvested in October. Normally kept fallow after

Land type	Land use practices
	rice. Some farmers grow winter crops like wheat, mustard, and vegetables.
Dry land (cultivated)	<p>Maize and potato are the main crops grown in dry land rain-fed condition. The crop is sown in February-March and harvested in August.</p> <p>Some farmers intercrop maize with grain legumes like soybeans</p> <p>Minor cereals (millets, buckwheat, barley) are also grown in dry land rain-fed condition.</p> <p>Mustard is also grown under dry land condition sown in November and harvested in March.</p>
Dry land/Wet land (fallow)	<p>Land may be kept fallow due to following reasons:</p> <ul style="list-style-type: none"> • Fields are too far from the homestead and difficult to guard from wild animals. • For grazing cattle • Lack of labour in the family to cultivate
Kitchen Garden	Area for growing vegetables in the back yard.
Pasture land	Grazing cattle.

78. Wild animal damage to crops (mainly by wild pigs) is a national issue in Bhutan. The Ministry of agriculture is promoting various control options but there are no easy solutions to this problem. Electric fencing is effective for controlling wild pigs but is expensive.

a. Area and Production of Crops

79. The main cereals grown include maize, minor cereals (buckwheat, wheat, millet) and rice. A summary of area and production under different crops is given in Table 251 Maize is the main crop grown in terms of acreage and production. Other crops grown include orange, vegetables and zinger mainly grown as cash crops.

Table 21: Area and production of major food crops

Crops	Harvested Area (acres)	Production (kgs)	Yield kgs/ac	QTY sold (kgs)
Maize	299.2	385177	1287	1424.5
Minor cereals	15.0	9123.5	608	0.0
Rice	8.2	16700.0	2037	12.5
Orange	67.9	380820	5609	380820
Zinger	11.4	13482	1183	10345.0
Areca nut	4.8	89421 nos		All
Vegetables	40.5	26008	642	11580

80. Eighty-three percent of the affected households reported that the food production is enough to meet their requirement (Table 22). The other 16 respondent noted that household level production is not enough to meet domestic requirements, however, they are able to purchase or trade to meet consumption requirement. Only 4 households reported that there are seasonal food shortages. The households with limited land holdings report that generally there are not enough marketable surpluses.

Table 22: Food self-sufficiency

	Number of households reporting		
	Yes	No	No response
Is the household level food production enough to meet the domestic requirement?	83	16	98
Are there seasonal food shortages?	4	91	102

a. Livestock owned

81. The main livestock owned by the affected households include cattle, horses, mules, and poultry (Table 23). No improved breeds of livestock have been introduced. Nevertheless, cattle form important component of the farming providing milk and milk products, FYM, and drought power. Horses and mules are mainly used for transporting goods. There will not be a major impact on the mule/horse owners after the road since transporting by mules/horses is not the major source of income.

Table 23. Type and numbers of livestock owned by households

Type	Numbers
Cattle	181
Lactating cows	47
Horses/Mules	52
Poultry	537
Pig	24
Others	2

a. Main sources and levels of annual income

82. Table 24 below provides the main sources of income and income levels for the affected households. Major source of income include sale of agricultural and livestock products, business, salary, carpentry, and cash remittances received from the employed relatives in the country, sale of. The sales of agriculture and livestock products are normally not surplus sales but rather distress sales for cash income. The cash income from employed relatives in the country is a regular income and not a loan. Weaving is mainly done by women. They normally weave dresses for men and women which are either sold locally or are sent to the nearest town through relatives for sale. It can be assessed from the census and survey that majority of affected people do not rely on land-based income generating activities as only 88 households are involved in some type of sales of agricultural products. This is due to the hilly terrain and lack of cultivable land. Business and trading was observed to be the main source of income followed by salary from government services and carpentry.

83. The income statement is mainly based on the cash received at hand. The farm products which are consumed and not sold but bartered are not reflected in the income statement. The annual average household income for the year 2012 was Nu 52,299.

Table 24: Income sources and the level of income of the affected households

Sources		Average annual cash income (Nu)	Nos of HHs involved
1	Sale agricultural products	31365	88
2	Sale of livestock products	50617	30
3	Sale of animals	22750	14

4	Business/trading	216286	35
5	Weaving	14040	21
6	Carpentry jobs	95024	21
7	Casual labour	23696	48
8	House construction works	18461	24
9	Transporting goods (manually)	20456	25
10	Hiring out mules/horses	5000	1
11	Cash remittances from relatives	31972	109
12	Salary (Govt. Service)	97923	41
Annual av. total household income		52299	

a. Expenditure pattern

84. The annual average household expenditure incurred by the affected households is given on Table 25. The households mainly incurred expenditures on children education, purchase of essential food items, repair of houses, hire of labour, expenses on hire of labour, expenses on health, purchase of clothes and contribution for *Rimdo*. The average annual household expenditure was Nu 23,220 which is less than the annual income. This does not really mean there is cash surplus. There could be a under reporting on expenditure of the households since proper records are not maintained.

Table 25: Expenditure pattern

Type of expenditure		Average annual expenditure (Nu)	Nos of HHs involved
1	Children schooling expenses	46265	109
2	Purchase of essential food items	20472	175
3	Purchase of agricultural inputs	3110	23
4	Purchase of livestock inputs	3583	58
5	Expenditure on hire of labour	21999	46
6	Purchase of clothes for the family	8851	140
7	Expenses on health	10208	100
8	Expenses on fuel for cooking, lighting	5057	171
9	Cost of repair and maintenance of house	114510	48
10	Rimdo	7577	161
11	Contributions	4630	164
12	Others	32378	8
Total household annual income		278640	1203

a. Displaced Households

85. A total of 50 households losing more than 10% of the land and other properties are considered as Economically Displaced Households out of which 8 households are physically displaced. For the 8 households who are physically displaced assistance will be provided in re-locating them. The cost of shifting and relocation will be covered.

86. For all the economically displaced households income restoration is proposed through special assistance in terms of provision of agriculture inputs such as seeds and seedlings of improved crop varieties in order to enhance their incomes. Each household will receive such inputs worth Nu 10,000.

IV. PUBLIC CONSULTATION AND DISCLOSURE OF INFORMATION

87. To ensure peoples' participation in the planning and during this study of this sub-project and to treat public consultation and participation as a continuous two way process, numerous events were arranged at this stage of sub-project preparation. Aiming at promotion of public understanding (DPs and other beneficiaries) and fruitful solutions of developmental problems such as local needs and problem and prospects of resettlement, various sections of DPs and other stakeholders were consulted through focus group discussions and individual interviews. Consultations and discussions were held along the sub-projects with the affected families and other stakeholders including village and geog heads, heads of households, women's groups, farmers, business communities, and other vulnerable DPs.

A. Objectives of Consultation Meetings

88. Per ADB SPS, meaningful consultation refers to a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis through the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, and sharing of development benefits and opportunities, and implementation issues. To meet requirements, consultations with the communities began at the feasibility design stage in 2010-2011. Consultations took place in public spheres without intimidation or coercion with large number of community and stakeholders participating. Women and vulnerable groups have been included in discussions and communities have had input into project design, especially regarding drainage and alignment along the six newly connected communities. Once the project is approved, project information, including information on entitlements, grievance redress will be disclosed in public spaces as well as by brochures to the communities.

89. The objectives of the consultations were as follows:

- To discuss the project with affected beneficiary communities and seek their views and perceptions;
- To identify social impacts and issues concerning Project Affected People (PAPs)
- Identify PAPs whose properties (lands, houses, sheds, commercial structures, fruit orchards/trees) are affected by the proposed road alignment.
- Perceptions of PAPs on the losses and preferred modes of compensation, in line with RGoB and Bank Policy, for compensation.
- Information on type and extent of common properties and intangible assets.
- Information on public infrastructure and community services that will be affected
- Identifying local organizations and social institutions that can be enlisted in designing and implementing resettlement provisions and preference regarding potential resettlement options.
- Any other issues for Planning Resettlement

B. The Consultation Procedure

90. The primary stakeholders of the Project have been identified as those residing in and around the vicinity of the proposed roads. Apart from the DPs, the other stakeholders identified are; MoWHS (DoR), NLC (Land and Survey Division), and Dzongkhag/Dungkhag Administration (Dzongkhag Agriculture Officer [DAO] and Dzongkhag Forest Officers (DFO), Finance Officer

(FO), Land Record Officer (LRO), Dzongkhag Survey Officer, Gup, Mangiap and village Headmen.

91. The consultation meetings with the affected people were held on 19-22nd June and 20-27th September 2013 separately for the Dewathang and Chokorling gewogs. The meeting for Chokhorling geog was held on 2013 below Lhakhang (near Tshogpas house). The meeting was attended by Tshogpa in Chokhorling village and by the Gup in Dezema village. Whereas in Dewathang 3 meetings were held. First with the Gup and the rural people and then with the Engineer of the Thrompon office with the urban people and with Dasho Thrompon, Thuemi and staff from Thrompon office with the urban people. A total of 166 households or their representatives attended meeting in Dezama, Chokorling and in Dewathang.

92. The main objective was to brief all affected households. The meeting was attended by Dasho Thrompon, Gup, Tshogpa to disseminate information about the Project Road including land acquisition, government policies, compensation options. On options for compensations, the meeting discussed cash compensation. Majority opted for cash compensation. Details of consultations including dates, location, list of participants, key issues and concerns raised were recorded.

93. Focus group discussions were conducted with mainly the affected households at Dezama, Chokorling and at Dewathang during the period 19 June 2013 and 20-27 September 2013. These meetings were organized to get wider public input from both the primary and secondary stakeholders. A total of 166 affected households participated in the discussions (Table 26).

Table 26: Focus Group Discussions

Sl. No.	Villages/location for the consultation	No. of participants
1	Dezama	21
2	Chokhorling	38
3	Dewathang	107
Total		166

Source: Resettlement Census Survey, 2013

C. Scope of Consultation and Issues

94. During the public consultations along with census and socio-economic surveys, the study team looked into: obtaining views of the community on resettlement and rehabilitation issues and rehabilitation options;

- Identify and assess the major socio-economic characteristics of the villages to enable effective planning and implementation;
- Looked into the concerns of the DPs, with reference to land acquisition and road alignment;
- Obtain opinion of the community on issues related to the impacts on community infrastructure and relocation of the same;
- Examine DPs' opinion on problems and prospects of road related issues;
- Identify people's expectations from subprojects and their absorbing capacity; and
- Finally, to establish an understanding for identification of overall developmental goals and benefits of the Project.

D. Perceptions, expectations and participation of the community

95. Chokorling village under Chorkhorling gewog is 1 hour walk from the nearest road head at Chokorling Gewog Centre. The remotest is Khalatsho village under Chorkhorling gewog which is 3 hours walk from nearest road. The people in both the villages have been facing problems in transporting goods to their villages and people have to transport their goods through horse or mule or contribute labor in transporting goods. They are happy that all these problems will be solved very soon with the construction of road.

96. The people thanked government and the ADB for bringing road/connecting their villages. All APs and their representatives expect that their living condition will improved after road construction. All affected households participated during the survey of road alignment with the road surveyors. They said that they will provide full support and cooperation for the implementation of the road project.

97. The people feel that the road will bring easy access to all basic service facilities and the travel time and cost of transportation will be reduced. The community would like to expand cultivation of mainly orange, maize and livestock products.

E. Benefits from the road project

98. The road would bring development to the rural areas/villages. The road will help improve access to better health facilities, market, education, income generation thereby improving the living standard of the people. The service facilities like schools, BHU will be upgraded; access to health services will improve with better health care services in the geogs/villages.

99. Although there are shops in the village/geog, once the road is constructed, more people would venture into business. With more shops and competition among the businessmen, the farmers will be benefited since they can buy goods at cheaper rates.

100. Presently farmers have to contribute labor or use horse/mule for transportation of goods for the community services in the villages. The villagers said they face more problems if goods are to be carried to long distance especially to Khalatsho. With such development opportunities like road construction farmers will be relieved from contributing free labor for any new construction and from carrying goods for schools and BHU.

101. The people also said that most youth do not like to stay in the village due to its remoteness and prefer living in the urban areas with or without jobs. With the road connecting the village, the migration of people to other places would be reduced and there are possibilities that youth who had already migrated to other places might come back to the village for better opportunities. Specifically, the road will contribute to the following areas.

102. **Enhanced agricultural production.** Farmers in the villages have transportation problems. Farmers who have marketable surpluses had problem marketing their produce. Presently, due to inaccessibility to road, farmers don't produce in large quantities. The road would encourage the middlemen to come to the villages for buying surplus goods of the farmers. With the construction of road, people foresee that they will not have problem selling their produce in the market. The villagers will have option to take their surplus produce to Nganglam and Samdrup Jongkhar town for sale. There is a good potential to grow cash crops like maize, squash and Areca nut and weaving baskets are the main source of income. Linkages to local and regional market will improve with road. Technical support services from

the Dzongkhag to the villages are expected to improve after the road which will enhance their productivity and income.

103. **Enhanced services on education.** The quality of education will improve with better teachers willing to come to the village after the road is constructed. The present schools in the geog will be upgraded to higher levels in future. The road would help reduce the construction cost for the schools and transportation of goods would be easier and faster. Besides, the road would provide employment opportunities to the students to earn cash income during winter vacation.

104. **Improved health services.** The access to emergency services and regular health services will improve after the road construction. Visit by medical staff from the Dzongkhag and central will increase after the road is constructed.

105. **Easy to travel within Bhutan:** People in Nganglam Dungkhag and Samdrup Jongkhar Dzongkhag don't have to worry about strike problems if they want to travel within the two Dzongkhags or other Dzongkhags within Bhutan.

106. The affected households also expressed that the road will cause mud slides, soil erosion, and will affected cultivated areas. They suggested planting of trees to protect the soil, fencing and constructing retaining walls as a part of road construction. Majority of the households are willing to support the maintenance of the road.

F. Impact of the loss of land and property

107. The affected people reported that the land affected by the road alignment is many. Moreover structures and trees are also affected. Appropriate compensation measures were requested by the affected households.

108. In case of displacement of any household at a later stage, the community expects timely and full compensation from the government including compensation for land and other properties affected. The affected communities have agreed that they will also provide full support for maintenance of road in future.

G. Financial/Income Implications to the households

109. The affected households' economic position will not go down as long as compensation is provided. With the project road coming, the income level of PAPs should improve. The affected households would be in a condition better than now because they would have opportunities to earn income from selling cash crops, livestock products, handicrafts etc. There will also be a good opportunity to earn from wage labour after the road. There will be a good opportunity to increase production cash crops through use of improved seeds and seedlings.

H. Findings of the Focus Group Discussions

110. During group discussions, it was observed that the affected households had raised similar problems like poor road infrastructure hindering transportation of agricultural products to market and lack of access lack to schools, and referral hospital. Some of the issues that were discussed and feedback received from the affected families are summarized in the Table 27.

Table 27: Focus Group Discussion held at Nganglam Dungkhag

Road Corridor	Nganglam-Dewathang (National highway)
Village	Dezama
Date	19.06.2013 and 21.09.2013
Meeting Location	Below lhakhang (temple) near Tshogpas house
Geog	Chokorling
Dzongkhag	Pema Gatshel
Number of people:	21
Positive Impacts	<ul style="list-style-type: none"> • Enhancing more agricultural products like vegetables; • Easy transportation of agricultural cash crops to nearby market; • Easy access to hospital and school • Less dependence to travel via Indian road where they have frequent strikes • Business opportunities
Negative Impacts	<ul style="list-style-type: none"> • Destroys existing clean environment as there will be pollution. • Decrease in annual income • May lead to poverty and landless for those households, who have small holdings of 30-40 decimals. • Have to construct another house

Focus Group Discussion: Chokorling Gewog

Road Corridor	Nganglam-Dewathang (National highway)
Village	Chokhorling
Date	22.09.2013
Meeting Location	Outside Lhakhang (temple)
Geog	Chokhorling
Dzongkhag	Pema Gatshel
Number of people:	38
Positive Impacts	<ul style="list-style-type: none"> • Easy transportation of cash crops to market • Easy access to health services, school and the market • Easy to reach Nganglam town in case of emergency • Easy access to transportation • Business opportunities
Negative Impacts	<ul style="list-style-type: none"> • Noise pollution • Robbery, vandalism and accident • Soil infertility and soil erosion causing decline in agricultural production and falling of rocks • Risk of occurring crack on Goenpa (temple) and contamination of drinking water • Look for a new place to reside and start over with the construction of the houses. • Difficulty in finding substitute land • Falling of rocks

Focus Group Discussion: Dewathang Gewog, Dewathang

Road Corridor	Nganglam-Dewathang (National highway)
Village	Dewathang
Date	20.09.2013, 24.09.2013 and 27.09.2013
Meeting Location	Gup Office, Dasho Tashi Dorji house and at Jigme Namgyel Polytechnic
Geog	Dewathang
Dzongkhag	Samdrup Jongkhar

Number of people:	107
Positive Impacts	<ul style="list-style-type: none"> • Enhancing more agricultural products like vegetables • Easy transportation of agriculture products • Easy access to hospital, schools • Safe and convenient to travel via internal road
Negative Impacts	<ul style="list-style-type: none"> • Destroys existing clean environment and will cause pollution • More unknown outsiders will come

Source: SASEC Road Connectivity, 2013

I. Plan for Further Consultation in the Subproject

111. The effectiveness of the resettlement and rehabilitation of DPs is directly related to the degree of continuing involvement of those affected by the sub-project. Several additional rounds of consultations with DPs will form part of the further stages of sub-project preparation and implementation. The DoR/Dzongkhag/Dungkhag officials will be entrusted with the task of RP implementation by conducting these consultations during RP implementation, which will involve agreements on compensation, assistance options, and entitlement package and income restoration measures suggested for the sub-project. In this particular subproject, women members were also presented in the FGD and many women were involved and responded well during census and socio-economic survey. The consultation will continue throughout the sub-project implementation.

112. The following set of activities will be undertaken for effective implementation of the Plan: During the planning phase, the DPs and other stakeholders were consulted in.

- selection of the road alignment so as to minimize resettlement impacts,
- development of mitigation measures etc.
- During the implementation of RP, DoR along with the concerned Dzongkhag/Dungkhag will organize public meetings, and will appraise the communities about the progress in the implementation of sub-project works, including awareness regarding road construction.
- Consultation and focus group discussions will be conducted with the vulnerable
- groups to ensure that the vulnerable groups understand the process and their needs are specifically taken into consideration.
- To make reasonable representation of women in the project planning and implementation they will be specifically involved in consultation.

J. Disclosure of RP

113. To maintain adequate transparency in planning and to ensure further active involvement of DPs and other stakeholders, the sub-project information will be disseminated through disclosure of Resettlement Planning document. A resettlement information leaflet containing information on compensation, entitlement and resettlement management adopted for the sub-project will be made available in local language(s) and distributed to DPs after the approval of the RP by the RGoB. Each DP will be provided information regarding specific entitlements. The DoR/Dzongkhag/Dungkhag officials will keep the DP informed about the impacts, the compensation and assistances proposed for them and facilitate addressing any grievances. A copy of the RP will be disclosed through the DoR, MoWHS website and also in the ADB website.

V. RESETTLEMENT POLICY, LEGAL FRAMEWORK

A. Objective

114. The legal framework and principles adopted for addressing resettlement issues in the Project have been guided by the existing legislation and policies (Land Act of Bhutan amended in 2007, Land Compensation Rates 2009 (PAVA), Cash Compensation Rates for fruit trees 2009, Department of National Properties, Ministry of Finance, Cash Compensation Rate for Private Forest trees 2010, Department of National Properties, Cash Compensation Rate for Fodder trees, Department of Livestock Animal Nutrition Division, National Center for Animal Nutrition, Bumthang and BSR 2012) of the RGoB, and the Asian Development Bank. Prior to the preparation of the Resettlement Plan, a detailed analysis of the existing national policies was undertaken. The section below provides details of the various national level legislations studied and their applicability within this framework.

B. ADB Policy on Involuntary Resettlement

115. The objectives of ADB's SPS (2009) with regard to involuntary resettlement are: (i) to avoid involuntary resettlement wherever possible; (ii) to minimize involuntary resettlement by exploring project and design alternatives; (iii) to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and (iv) to improve the standards of living of the displaced poor and other vulnerable groups.

116. ADB's SPS (2009) covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of; (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers displaced persons whether such losses and involuntary restrictions are full or partial, permanent or temporary.

117. It is important to note that ADB policy covers all categories of Displaced Persons (DPs) and requires the implementing agency (viz. the DoR) to pay for all land and all other assets affected by the project and to implement measures for income restoration. The Bank recognizes that Land Compensation and Resettlement Policies vary widely among its member countries and that each has its own framework for land acquisition. In most countries, this RP defines procedures for land expropriation and for compensation. When comparing these policies to those of the ADB, it is important to note that the ADB policy: (i) does not distinguish between those who do and do not have formal legal title to their assets; and (ii) emphasizes the need for replacement costs for lost assets, but also measures to restore living standards and livelihoods so that people are not disadvantaged by resettlement.

C. Existing Bhutanese Law

118. The primary legal instruments for Land Acquisition and Resettlement in Bhutan are the Land Act of 1979 (amended in 2007), which regulate ownership, sales and the compensation payable by the RGoB when land is acquired. The Land Act of Bhutan 2007 provides the acquisition mechanism for land and other property falling under the eminent domain whenever required for a public purpose. The rates of compensation are reviewed by the RGoB periodically, the latest of which is described in the Land Compensation Rates 2009 (PAVA), Cash Compensation Rates for fruit trees 2009, Department of National Properties, Ministry of Finance, Cash Compensation Rate for Private Forest trees 2010, Department of National

Properties, Cash Compensation Rate for Fodder trees, Department of Livestock Animal Nutrition Division, National Center for Animal Nutrition, Bumthang and BSR 2012) and Bhutan Scheduled Rates (BSR 2012) for the affected structures.

119. The RGoB, based on laid down classifications and regulations, will pay compensation for such land. If the family losing land becomes endangered, the Government will compensate that family the cost of the land in cash and as well as substitute land. In the case of landless people, the land can be allotted free of cost by the Government as a Kidu.

120. Both the Bhutanese and ADB guidelines related to resettlement aim at achieving the following overall goals of (i) Involuntary resettlement shall be avoided to the extent possible or minimized where feasible, exploring all viable alternatives Project designs, and (ii) where displacement is unavoidable, people losing assets, livelihood or other resources shall be assisted in improving or at a minimum regaining their former status of living at no cost to themselves.

D. Resettlement Principles for the Project

121. Following the Bhutanese Land Act of 1979 (amended in 2007) on land acquisition, incorporating ADB Policy on Safeguard Policy Statement 2009, the basic principles for the Project will include the following elements:

- As a matter of policy, land acquisition and other involuntary resettlement impacts would be minimized as much as possible;
- Any land acquisition and/or resettlement will be carried out and compensation provided in order to improve or at least restore the pre-project income and living standards of the displaced persons;
- All information related to resettlement preparation and implementation will be disclosed to all concerned, and people's participation will be ensured in planning and implementation of the Project;
- All land acquisition would be as per the Land Act 1979, (amended in 2007). Payment of compensation for acquired land and assets at replacement cost;
- Payment of compensation for lost land, housing, assets and resettlement allowances in full prior to the contractor taking physical acquisition of the land and prior to the commencement of any construction activities;
- All compensation and other assistances will be paid to all DPs prior to commencement of civil works on the site acquired;
- Broad entitlement framework of different categories of project-affected people has been assessed and is specified in the Entitlement Matrix. Provisions will be kept in the budget for those who were not present at the time of the survey. However, anyone moving into the sub-project area after the cut-off date⁴ will not be entitled to assistance;
- Income restoration and rehabilitation;
- All activities related to resettlement planning, implementation, and monitoring would ensure involvement of women. Efforts will also be made to ensure that vulnerable groups are included; and

⁴ The cut-off date for those who have legal titles of their land/asset is to notify the landowners of the Government intention to acquire land at least 120 days prior to the acquisition of land. (Reference: Section 156 and 157 of the Land Rules and Regulations of the Kingdom of Bhutan 2007).

- Appropriate grievances redress mechanism to ensure speedy resolution of disputes.

122. In accordance with the resettlement principles suggested for the Project, all affected households and persons will be entitled to a combination of compensation packages and resettlement assistance depending on the nature of ownership rights on lost assets and scope of the impacts including socio-economic vulnerability of the displaced persons and measures to support livelihood restoration if livelihood impacts are envisaged. The displaced persons will be entitled to the following seven types of compensation and assistance packages:

- Compensation for land at replacement cost, or land for land;
- Compensation for structures (residential/commercial) and other immovable assets at replacement cost;
- Compensation for cash crops/fruit trees/annual crops at market value; Assistance for shifting and rebuilding the DPs' structures;
- Rehabilitation assistance in lieu of the loss of business/ wage/income/livelihood;
- Special assistance for vulnerable groups; and
- Rebuilding and/or restoration of community infrastructure and amenities.

123. A comparison of the RGoB and ADB policies on safeguards is given in Table 32.

Table 32: Comparison of RGoB and ADB Policies

ADB's Safeguards Policy Statement 2009	RGoB Policies
Involuntary resettlement should be avoided wherever possible	This principle is equally emphasized.
Minimize involuntary resettlement by exploring project and design alternatives	As far as possible, RGoB also aims to minimize displacement.
Conducting census of displaced persons and resettlement planning	Detail lay out procedure for census survey and resettlement plan.
Carry out meaningful consultation with displaced persons and ensure their participation in planning, implementation and monitoring of resettlement program	Displaced persons shall be thoroughly consulted and their views pertaining to the project should be highlighted.
Establish grievance redress mechanism	Project involving involuntary resettlement needs to have Grievance redress mechanisms for displaced persons.
Support the social and cultural institutions of displaced persons and their host population.	This is emphasized in the Land Act of Bhutan, clause 146.
Improve or at least restore the livelihoods of all displaced persons	This is emphasized in the Land Act of Bhutan, clause 155.
Land based resettlement strategy	Loss of asset to be compensated to the extent of actual loss.
All compensation should be based on the principle of replacement cost	The compensation award shall take into account the market value of the property being acquired (BSR 2012 with quick cost guide approach), also reflected in Land Act of Bhutan, clause 149.
Provide relocation assistance to displaced persons	Dzongkhag, geog key stakeholders will assist relocation to the displaced persons.

ADB's Safeguards Policy Statement 2009	RGoB Policies
Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.	No compensation will be made if the land is not registered in the Tharm.
Disclose the resettlement plan, including documentation of the consultation in an accessible place and a form and language(s) understandable to affected persons and other stakeholders.	This principle is equally emphasized.
Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits.	This is not mentioned.
Pay compensation and provide other resettlement entitlements before physical or economic displacement.	This principle is equally emphasized in Land Act of Bhutan 2007, clause 158.
Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons.	This is not mentioned.

E. Summary of key gaps between RGoB Policy and ADB SPS

124. The main gaps between the RGoB and ADB SPS are as follows: (i) Non-title holder (squatters and encroachers, share croppers, tenants, land less) are not compensated or assisted under RGoB law, and (ii) no provisions are made for community resources.

F. Valuation of the affected land

125. The Project will therefore pursue land-for-land compensation as much as possible as stipulated in the Land Act of 1979 (amended in 2007), and, where necessary or opted by those affected, provide other assistance as well as other support mechanisms to those deemed as vulnerable or at risk. Replacement land of equal or better productive value will be offered as an option to those losing 10 decimal or more of their holdings, or where loss of land threatens the economic viability of the household.

126. For land for land, the location of replacement land to be allotted in Project areas shall be in the order of preference of same village and gewog (clause 155, Land Act of Bhutan 2007). The RGoB will provide the landowner with replacement land commensurate to the value of the land acquired (clause 156, page 39, Chapter 7, "Acquisition of Registered Land", Land Act of Bhutan 2007). The land under acquisition will be taken over only after registering the replacement land in the name of the affected landowner or the cash compensation in replacement cost has been made to the landowners (clause 158, Land Act of Bhutan 2007). Cash compensation in replacement cost would be based on the latest government published rate, currently the Land Compensation Rates 2009 (PAVA rates)⁵. The valuation will be based on the latest government rate and then negotiated where appropriate to ensure replacement cost. The difference between the compensation determined by the Dzongkhag and the replacement cost determined by the Block Development Committees will be paid as a

⁵ The government rate is anticipated to be updated in latter part of 2014 by the owning body, which is the Ministry of Finance.

productive asset cash grant by the Project. If the compensation and the replacement cost are not acceptable to the DPs, they would have recourse to grievance redress mechanism as defined in this RP.

G. Valuation of affected structures

127. Compensation for loss of structures would be carried out on replacement cost basis based on the Bhutan Schedule of Rates (BSR 2012) quick cost guide, Samdrup Jongkhar- base town with applicable cost index of 25.0% and inflation of 5.0% annually. The BSR 2012 was used as there is no quick cost guide for BSR 2007, 2009 and 2011. Affected households would be allowed to retain the salvaged materials and due assistance would be provided for shifting (provision of transport) of salvaged materials to the new site and assistance in rebuilding the structures by DoR.

H. Valuation of cash crops/ fruit trees/ annual crops

128. The valuation for the affected cash crops, fruit trees and annual crops will be on a replacement cost basis based on the latest Compensation Rates 2009 for land, Cash Compensation Rates for fruit trees 2009, Department of National Properties, Ministry of Finance, Cash Compensation Rate for Private Forest trees 2010, Department of National Properties, Cash Compensation Rate for Fodder trees, Department of Livestock Animal Nutrition Division, National Center for Animal Nutrition, Bumthang and BSR 2012) and Bhutan Scheduled Rates (BSR 2012) for the affected structures. Based on survey of market prices in the area for different types of crops and trees, the current rates are equivalence to the replacement cost.

I. Income Restoration Measures

129. The Block Development Committee, Dzongkhag/Dungkhag authority and DoR will assist the DPs in the income restoration measures as follows:

- In cases where the displacement caused by the Project leads to a loss of livelihood or income opportunities, either temporarily or permanently, assistance will be given to the affected population to reestablish their livelihood and income, and to compensate for temporary losses.
- The unit of entitlement eligible for support in such cases will be the adult individual, both men and women. All adult members of households affected in this way will be eligible for support.
- In the case of road projects, a common loss is the displacement of a business structure such as a small roadside shop. The Project will assist such businesses in relocating, and in continuing their preferred occupation without loss of customer base.
- If the Project impact leads to people being unable to continue with their previous occupation, the Project will provide support and assistance through alternative employment strategies. Where possible, DPs will be given employment opportunities created by the Project, such as work with construction or maintenance.
- Particularly in the case of landless families who suffer partial or total loss of livelihood as a result of the Project, RGoB would, as part of its normal policy, allot land free of cost to such affected families in the same district. Those who become landless as a result of the land acquisition due to the Project would be

allotted land free of cost as well as cash compensation for the cost of the land lost.

J. Cut-off Date

130. The cut-off date for those who have legal titles of their land/asset is to notify the landowners of the Government intention to acquire land at least 120 days prior to the acquisition of land. (Reference: Section 156 and 157 of the Land Rules and Regulations of the Kingdom of Bhutan 2007). For non-titleholders those without land such as encroachers the cut-off date is the date of the Project census survey, which is September 30, 2013. People moving in the subproject area after the cut-off date will not be entitled to any kind of compensation or assistance as per provision made herein.

VI. ENTITLEMENTS, ASSISTANCE AND BENEFITS

131. The Entitlement Matrix has been formulated according to the resettlement principles for this Project and specifically reflects various types of losses resulting out of the particular subprojects and specific compensation and resettlement packages. Compensation for the lost assets to all displaced persons will be paid on the basis of replacement cost. Resettlement assistance for lost income and livelihoods will be provided to the affected households.

132. Special resettlement and rehabilitation measures will be made available to the Vulnerable Group. They have limited access to formal credit and have high dependency burdens on their relatives. Therefore the vulnerable group deserves special attention which could be in the form of economic assistance. It is proposed to provide them with one time economic rehabilitation in the form of 3 months wages @ Nu.200 per day per household as per the Entitlement Matrix.

Table 28: Entitlement Matrix

Type of Loss	Application	Definition of APs	Entitlement	Responsibility	Remarks	# of HH
1. Agricultural land by titled owners (private property)	Land on the project right of way (ROW)	Titleholders	<p>Affected plot is more than 10 decimals: Option of Land-for-Land and/or Cash-for-land</p> <p>Affected plot is less than 10 decimals: Cash-for-land</p> <p>Compensation at replacement value.</p>	Dzongkhag, DoR and Agriculture Department	<ol style="list-style-type: none"> The difference between the compensation determined by the Dzongkhag and the replacement value determined by the Block Development Committees will be paid as a cash grant by the project. If a portion from the total land holding of the individual is acquired by the project, the following options will be given: <ul style="list-style-type: none"> The AP keeps the remaining land and the compensation and assistance is paid to the AP for the land to be acquired. If the AP is from a vulnerable category, compensation for the entire land is by means of land-for-land if preferred by the AP, provided that land of equal or better productivity is available. Land for land or cash compensation. In case of developed land being acquired and substituted by an undeveloped land, the owner in such cases shall be compensated with half the cost land for land development purpose. In case the owner is endangered of becoming landless, the affected owner will be compensated the cost of land as per the Land Compensation Rates 2009 as well as substitute land free of cost. 	202
2. Homestead and commercial land (private property)	Land on ROW	Titleholders	Compensation at replacement cost.	Dzongkhag and DoR	Cash compensation at replacement value. If there is a difference between the latest published Land Compensation rate and replacement value, difference in value will be covered by grant by DoR.	0
3. Residential and commercial structures by owners (private property)	Structure within the ROW	Owners of structures	Compensation at replacement cost.	Dzongkhag and DoR	<ol style="list-style-type: none"> Cash compensation to be paid by the Dzongkhag. The amount of depreciation deducted by the Dzongkhag will be covered by a cash grant by DoR. DoR will help in shifting and in rebuilding the structures of the owners. 	23
4. Tenant – residential or commercial	Affected by ROW	Tenant	Compensation	Dzongkhag and DoR	<ol style="list-style-type: none"> The amount of deposit/advance paid to the landlord or the remaining amount at the time of acquisition (to be deducted from the payment to the landlord) is to be based on Tenancy Act of RGoB 2004. The tenant has the right to salvage material from the demolished structure constructed by him/her. DoR will assist in shifting and in rebuilding the 	3

Type of Loss	Application	Definition of APs	Entitlement	Responsibility	Remarks	# of HH
					structures of the tenant. 4. Lump sum rental assistance of 2 months current rental rate	
6. Income from business or land through wages and other employment	Households affected by ROW	Individual	Lump sum	DoR	1. Persons directly affected by project will be given priority by DoR to re-employ during the implementation of project. 2. One time economic rehabilitation grant (in the form of 3 months wages) per household.	3
7. Annual / seasonal crops	Households affected by ROW	Household	Notice to harvest standing crops	Dzongkhag, DoR and Agriculture Department	Compensation for lost crop will be paid as per the Compensation rates 2008/2009 for cash crops/fruit trees/annual crops. The difference between the Compensation rates 2008/2009 for cash crops/fruit trees/annual crops and the market price for lost crop will be covered by providing free seeds and seedlings.	0
8. Trees/Perennial cash crops	Households affected by ROW	Household	Compensation following Govt procedures.	Dzongkhag, DoR, Agriculture Dept.	Compensation for tree cash crops will be based on Compensation rates 2008/2009 for cash crops/fruit trees/annual crops and the existing procedure of the Ministry of Agriculture which supports the compensation in cash for loss of income from the cash crops.	135
9. Encroachers	Households affected by ROW	Household	No compensation for land; assistance to vulnerable households	Dzongkhag and DoR	1. One time economic rehabilitation grant (in the form of 3 months wages) for vulnerable encroachers (e.g., households below the poverty line) will be assisted. 2. Cut-off date for this entitlement is the date of the survey.	0
10. Structures by squatters and informal settlers	Households affected by ROW	Household	No compensation for land; compensation for structure at replacement cost and assistance to vulnerable households	Dzongkhag and DoR	1. The squatter has the right to salvage material from the demolished structure. 2. DoR will assist in shifting and in rebuilding the structures for the squatters. 3. One time economic rehabilitation grant (in the form of 3 months wages) for vulnerable groups per household 4. Cut-off date for this entitlement is the date of the survey.	3
11. Primary source of income	Households affected by ROW	Individual	Assistance for income restoration	Dzongkhag and DoR	1. One time economic rehabilitation grant (in the form of 3 months wages) for vulnerable groups per household. 2. Preferential employment in the project, especially for women and the poor. 3. Assistance in finding alternate jobs	3
12. Vulnerable Households	Households affected by ROW	Household	Assistance for income restoration	Dzongkhag and DoR	1. One time economic rehabilitation grant (in the form of 3 months wages) 2. Preferential employment in the project	55

Type of Loss	Application	Definition of APs	Entitlement	Responsibility	Remarks	# of HH
13. Community infrastructure and amenities	Affected by ROW	Community	Replacement	Dzongkhag and DoR	Cultural properties will be conserved by special measures such as relocation, replacement in consultation with the community. Compensatory afforestation will replace loss of trees.	2
14. Other impacts not identified	Households affected by ROW	Individual	Additional assistance	Dzongkhag and DoR	Unforeseen impacts will be documented and mitigated based on the principles agreed upon in this policy framework.	TBD

DoR = Department of Roads, RGoB = Royal Government of Bhutan, ROW = right-of-way.

VII. RESETTLEMENT BUDGET AND FINANCING

A. Resettlement overall cost estimates

133. The compensation and assistance cost will be borne by the Project. The total budget needed for the resettlement is 23,089,338. A sum of Nu 990,000 has been proposed as support to the affected vulnerable groups. A sum of Nu 500,000 has been proposed for the income restoration of 50 economically displaced households. For monitoring a sum of Nu 1,000,000 is proposed. From the total amount 10% is proposed as a contingency budget.

134. The DoR under the RGoB will bear the costs of land and compensation payable to the DPs through concerned Dzongkhag/Dungkhag.

Table 29: Summary of budget for the resettlement

	Items	No. of HHs	Unit	Unit Cost	Total	
LAND			Acres	Nu/acre	Nu	Remarks
Nganglam	Dry land (class A)	10	0.44	564,632	222,532	The total cost has been calculated based on: PAVA land price, distance from the road, water availability, and land topography. The budget includes only those households who have opted for cash-for-land compensation
	Wet land (class A)	1	0.03	565,307	19,899	
	Orchard land (class A)	17	0.78	590,215	488,671	
	Dry land (class C)	14	0.42	228,777	99,680	
	Wet land (class C)	2	0.019	272,599	5,479	
	Orchard land (class C)	3	0.06	265,325	16,339	
Sub-total		47	1.75		852,614	
Dewathang	Dry land (class A)	26	1.81	505,760	930,322	
	Orchard land (class A)	2	0.032	526,584	18,485	
	Urban (Commercial)	14	0.35	1,575,565	559,444	
Sub-total		42	2.19		1,508,251	
Pasakha	Urban	1	0.04	153,806	615,224	Please refer Annexure 1
Sub-total		1			615,224	
Land Subtotal		90			2,976,089	
STRUCTURES (Private)		Number			Total (Nu)	Remark
Nganglam		18			1,195,760	Please refer Annexure 2 Remark
Dewathang		10			277,350	
Pasakha		2			515,000	
Structures (Private) Sub-total		30			1,988,110	
STRUCTURES (Government)		Number			Total (Nu)	
Structures (Government) Sub-total		35			8,893,361	

TREES		Number			Total (Nu)	Remark
Nganglam	Fruit trees	9,851			4,451,136	Please refer Annexure 3
	Fodder trees	15			2,100	
	Private forest trees	5			196,992	
Sub-total		9,869			4,669,468	
Dewathang	Fruit trees	4724			1,311,310	
	Fodder trees	14			19,617	
	Private forest trees	101			289,356	
Sub-total		4839			1,620,283	
Tress Sub-total					6,289,751	

Vulnerable Households		Number	Unit	Unit Cost	
Assistance	3 months at 200 Nu/day	55	90	200	990,000
Income restoration					
Assistance	Support for Ag Input	50		10,000	500,000
Rental					
Assistance	Support for tenants	3	2	2,000	12,000
Monitoring					
Lumpsum		1	1	1,000,000	1,000,000
Administration					
Lumpsum	Consultation, GRCs	1	1	20,000	200,000
Total					20,990,353
Contingency	10% of the total				2,099,035
Grand Total					23,089,338

Note: The calculations have been based on the following:

- 1) **Land:** As per Compensation Rate 2009: factors taken into consideration based on classes of land. For rural compensation rates based on: 1.Distance from the highway/feeder road. 2. Water availability on the land. 3. Topography of the land
- 2) **Trees unit cost:** As per 2009 compensation rate, Department Of National Properties, Ministry of Finance for fruit trees and 2010 compensation rate for private forest trees, Department Of National Properties, Ministry of Finance. Fodder trees rate from the Department of Livestock, Animal Nutrition Division, National Center for Animal Nutrition, Bumthang
- 3) **Structures:** Replacement cost has been estimated based on latest market rates, Land Compensation Rates 2009, Compensation Rates 2009 for cash crops/fruit trees/forest trees/fodder trees. BSR 2012 and discussion with displaced persons, engineers and village heads.

VIII. INSTITUTIONAL ARRANGEMENTS

A. Institutional Requirement

135. For implementation of RP there will be a set of institutions involved at various levels and stages of the Project. For successful implementation of the RP, the proposed institutional arrangement with their roles and responsibilities has been outlined in this section. The primary institutions, who will be involved in this implementation process, are the following:

- Department of Roads
- Dzongkhag (District Administration)/Dungkhag Administration
- Project Management Office
- Land Record Officer
- Grievance Redressal Committees
- Supervision Consultant

B. Resettlement Management

136. The DoR will be the executing agency (EA) for the Project. A Project Management Office (PMO), headed by a Project Coordinator (PC) will be established and be responsible for the overall execution of the Project. The Dzongkhag (District Administration)/Dungkhag (Sub-district Administration) will be responsible for implementing the resettlement & rehabilitation activities. The Department of Roads will ensure availability of budget for land acquisition. The Dzongkhag administration (LRO, DAO, DE and Dzongkhag Survey Officer) will appoint a group of trained surveyors to assist resettlement activities through cadastral survey. On the other hand, the Supervision Consultant will provide a weeklong training and orientation program for implementation of the RP to all surveyors and concerned Dzongkhag and Dungkhag officials.

137. The concerned Dzongkhag/Dungkhag officials will work in close coordination on the day-to-day activities of the Resettlement Plan and implementation. The Dzongkhag/Dungkhag officials will execute and monitor the progress of the work and ensure coordination between relevant departments, the Grievance Redress Committee and the DPs. The DoR and Dzongkhag/Dungkhag officials will ensure the inclusion of those DPs who may have not been covered during the census survey.

IX. GRIEVANCE REDRESS MECHANISMS

138. The Project will be conducted with a participatory process with the local communities. Through this, and the provision of good compensation and support mechanisms, acceptance of the Project will be enhanced and complaints reduced. There may nevertheless be individuals or groups who feel that they are not given adequate support, or that their needs are not properly addressed. The Project will therefore establish a Grievance Redress process in the existing mechanism of local committees (Geog Yargay Tshogchung, Dzongkhag Yargay Tshogdu), and the Dzongkhag/Dungkhag which will hear complaints and facilitate solutions. If the issue is not resolved, the individual/group may approach PT through the office of the local executive engineer. If the issue remains unresolved, people would have the right to approach the higher authority as per traditional practices. The Complainants will be able to access the higher authorities such as His Majesty the King and courts at any time should they be not satisfied with the proposed resettlement measures. Project signboard and information brochure will include contact information for GRC.

A. Procedures and Time Frame for Grievance Redress

139. A grievance redress mechanism will be established to receive and facilitate the resolution of concerns, complaints and grievances of affected people and relevant agencies on the social and environmental performance of the project in a time bound and transparent manner. The project specific GRM is not intended to bypass the government's own redress process, rather it is intended to address project affected people's concerns and complaints promptly, making it readily accessible to all segments of affected persons and is scaled to the risks and impacts of the project. While the affected person or party may submit their complaints concerning the project to any relevant agency, the steps recommended for the GRM are:

- Step 1: If any affected person or party faces grievances related to environment, land acquisition or resettlements, he/she can approach the contractor, construction supervision consultants or PT site staff directly at the site level.
- Step 2: If grievances are not addressed at the site level, the affected person or party can lodge a written grievance to the grievance redress committee (GRC) comprising of Sector Heads of the Dzongkhag Administration as well as Geog Officials. The affected person or party may also skip step 1 and directly file written grievance to the GRC. All grievances which cannot be address at the site level should be forwarded to the grievance redress committee within 15 days from the receipt of complaint. The committee must respond within 15 days. Further, the GRC will treat grievances of both male and female affected persons equally and address them fairly.
- Step 3: If the affected person or party is not satisfied with the decision or he/she receives no response within 15 days of registering the grievance, he/she can approach the PT and finally, can appeal to the Royal Government of Bhutan or His Majesty the King.

X. IMPLEMENTATION SCHEDULE

140. All land acquisition and resettlement process of the displaced persons must be completed before the start of the civil works. All land is to be provided free of encumbrances. Displaced persons from the affected households have to be given sufficient notice prior to start of civil works. The implementation schedule for the construction of Nganglam-Dewathang national highway is given below in Table 30.

Table 30: Tentative Implementation Schedule

	2013				2014				2015				2016				2017			
Project Activity	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Detailed Design																				
Finalization of RP based on Detailed Design																				
Approval of RP																				
Disclosure of RP																				
Consultation with AP																				
Establishment of GRC																				
Publication of notification to acquire																				
Replacement cost survey																				
Valuation																				
Final list of AP and distribution of ID Cards																				
Payment of compensation for land and structure																				
Payment of all other assistance																				
Handover of land to contractor																				
Civil Works																				
Internal Monitoring																				
External Monitoring																				

141. The civil works will be linked with the completion of land acquisition and compensation prior to the commencement of civil work. The DoR will give the notification to the DPs through concerned Dzongkhag/Dungkhag four months prior to the construction of the roadwork. This will facilitate the DPs to harvest their standing agricultural product, which will further minimize and mitigate the Project impact. Further, the DPs will have enough time to locate the substitute land within the same village, Geog and Dzongkhag. In order to locate the substitute land, Dzongkhag/Dungkhag officials will assist the DPs.

XI. MONITORING AND EVALUATION

A. Internal Monitoring

142. The PMO supported by Dzongkhag/Dungkhag officials will systematically monitor land acquisition and resettlement activities, based on (a) process monitoring (e.g., project inputs, expenditures, staff deployment etc.), (b) output monitoring (e.g. results in terms of number of DPs compensated), and (c) impact evaluation (e.g. project impact on people's livelihood).

143. The internal monitor will be responsible for overall internal monitoring and evaluation of the project progress for resettlement implementation. The internal monitor will undertake biannual monitoring during the RP implementation period. Monitoring will also ensure recording of DP's views on resettlement issues such as; DP's understanding of entitlement policies, options, and alternatives; site conditions; compensation valuation and disbursement; grievance redress procedures; and staff competencies. The monitoring reports will be sent to ADB twice a year.

B. Reporting Requirements

144. The monitoring process will be based on key implementation procedures and work plan presented in the previous section. The following points should be considered for effective monitoring:

- The RP implementation should be reflected in the regular progress report of the Project.
- Regularly carry out site visits and consultations with affected communities to assess social impacts, adequacy of mitigation actions, participation of community members, especially the vulnerable households in project activities.
- Report six monthly progress highlighting any new issues and recommendations for addressing these issues.

C. External Monitoring

145. For subprojects will have significant adverse safeguard impacts, the EA will retain qualified and experienced external experts to verify its monitoring information.⁶ The external monitoring will be undertaken by the Construction Supervision Consultant. The external monitor will monitor and verify RP implementation to determine whether resettlement goals have been achieved, livelihood and living standards have been restored, and provide recommendations for improvement. An important function of the external monitoring expert is to advise the EA on safeguard compliance issues. If significant non-compliance issues are identified, the EA is required to prepare a corrective action plan to address such issues. The EA will document monitoring results, identify the necessary corrective actions, and reflect them in a corrective action plan. The EA, in each quarter, will study the compliance with the action plan developed in the previous quarter. Compliance with loan covenants will be screened by the EA.

⁶ Experts not involved in day-to-day project implementation or supervision.

**Annexure 1: List of Affected Land
Private and Government**

Sl. No.	Name of the hh head	Permanent Address			Total Land (acre)	Total Land (dec)
		Village	Geog	Dzongkhag		
1	Tendel Zangpo	Dezama	Chorkhorling	Pemagatshel	0.85	84.50
2	Sanjay Peljor	Dezama	Chorkhorling	Pemagatshel	2.41	241.40
3	Dorji Selden	Dezama	Chorkhorling	Pemagatshel	5.36	535.50
4	Norbu	Dezama	Chorkhorling	Pemagatshel	5.73	572.90
5	Monang	Dezama	Chorkhorling	Pemagatshel	2.80	279.50
6	Tenzin	Dezama	Chorkhorling	Pemagatshel	5.59	559.10
7	Ugyen Tshering	Dezama	Chorkhorling	Pemagatshel	1.78	177.80
8	Tshering Zangmo	Dezama	Chorkhorling	Pemagatshel	3.03	302.90
9	Sangay Tenzin	Dezama	Chorkhorling	Pemagatshel	1.61	160.50
10	Dechen Dorji	Dezama	Chorkhorling	Pemagatshel	1.28	127.70
11	Tashi Phuntsho	Dezama	Chorkhorling	Pemagatshel	0.58	57.50
12	Nidup Rinchen	Dezama	Chorkhorling	Pemagatshel	0.37	37.40
13	Yurpi	Dezama	Chorkhorling	Pemagatshel	0.67	67.30
14	Sangay Yeshe	Dezama	Chorkhorling	Pemagatshel	5.86	586.20
15	Ata Barma	Dezama	Chorkhorling	Pemagatshel	4.66	465.50
16	Dorji Kuenzang	Dezama	Chorkhorling	Pemagatshel	1.16	116.10
17	Kuenzang Chopel	Dezama	Chorkhorling	Pemagatshel	0.63	62.90
18	Wagtsa	Dezama	Chorkhorling	Pemagatshel	0.83	82.60
19	Rinchen Drakpa	Dezama	Chorkhorling	Pemagatshel	3.00	299.50
20	Tshering Dorji	Dezama	Chorkhorling	Pemagatshel	1.74	173.50
21	Kunzang Norzom	Dezama	Chorkhorling	Pemagatshel	0.69	68.80
22	Dechen Tshomo	Dezama	Chorkhorling	Pemagatshel	0.80	80.40
23	Dechen Wangdi	Dezama	Chorkhorling	Pemagatshel	1.34	134.00
24	Norbu Rinzin	Dezama	Chorkhorling	Pemagatshel	2.43	243.00
25	Samten Choden	Dezama	Chorkhorling	Pemagatshel	0.18	18.10
26	Dawa Norbu	Dezama	Chorkhorling	Pemagatshel	1.56	156.30
27	Chokey Gyeltshen	Dezama	Chorkhorling	Pemagatshel	2.97	296.70
28	Sonam Wangdi	Dezama	Chorkhorling	Pemagatshel	1.58	158.20
29	Samten Wangmo	Dezama	Chorkhorling	Pemagatshel	0.36	36.10
30	Karma Dema	Dezama	Chorkhorling	Pemagatshel	1.41	140.70
31	Late Tsechu Norbu	Dezama	Chorkhorling	Pemagatshel	3.89	389.20
32	Dawa Gyeltshen	Dezama	Chorkhorling	Pemagatshel	3.63	363.30
33	Tenzin Norbu	Dezama	Chorkhorling	Pemagatshel	0.63	62.60
34	Tshering Wangchuk	Dezama	Chorkhorling	Pemagatshel	0.67	66.70
35	Dorji Yurung	Dezama	Chorkhorling	Pemagatshel	0.46	46.40
36	Sangay Chedup	Dezama	Chorkhorling	Pemagatshel	0.47	47.10
37	Norbu Jazom	Dezama	Chorkhorling	Pemagatshel	0.44	44.40
38	Kenzang Lhamo	Dezama	Chorkhorling	Pemagatshel	0.60	60.20
39	Thinley Dorji	Dezama	Chorkhorling	Pemagatshel	0.30	29.80
40	Sangay Tshewamg	Dezama	Chorkhorling	Pemagatshel	0.11	11.40
41	Thinley Zangmo	Dezama	Chorkhorling	Pemagatshel	0.31	30.80

42	Ugyen Dorji	Dezama	Chorkhorling	Pemagatshel	0.78	77.60
43	Samten Lhendup	Dezama	Chorkhorling	Pemagatshel	1.89	188.80
44	Gyeltshen Norbu	Dezama	Chorkhorling	Pemagatshel	1.88	188.10
45	Sonam Chezom	Dezama	Chorkhorling	Pemagatshel	0.22	21.70
46	Kesang Choden	Dezama	Chorkhorling	Pemagatshel	0.23	23.40
47	Dramey	Dezama	Chorkhorling	Pemagatshel	2.30	229.70
48	Tenta	Dezama	Chorkhorling	Pemagatshel	1.52	152.00
49	Sakten Wangchuk	Dezama	Chorkhorling	Pemagatshel	0.85	85.00
50	Kunzang Rinchen	Dezama	Chorkhorling	Pemagatshel	1.10	110.30
51	Dawa Pemo	Dezama	Chorkhorling	Pemagatshel	0.57	57.20
52	Rinchen	Dezama	Chorkhorling	Pemagatshel	0.43	42.50
53	Thukten Rabgay	Dezama	Chorkhorling	Pemagatshel	0.33	32.80
54	Dechen Chopel	Dezama	Chorkhorling	Pemagatshel	1.26	125.70
					88.09	8809.30
55	Dechen Zangmo	Nganglam	Norbugang	Pemagatshel	0.53	52.90
56	Jinpa Lhamo	Nganglam	Norbugang	Pemagatshel	0.45	44.50
57	Cheki Wangmo	Nganglam	Norbugang	Pemagatshel	0.70	69.70
58	Pelden Norgay	Nganglam	Norbugang	Pemagatshel	1.72	172.40
59	Daza	Nganglam	Norbugang	Pemagatshel	2.61	260.60
60	Dechen Dema	Nganglam	Norbugang	Pemagatshel	5.12	512.30
61	Tshering Wangdi	Nganglam	Norbugang	Pemagatshel	6.11	611.00
62	Dawa Rigzin	Nganglam	Norbugang	Pemagatshel	1.41	140.50
63	Ngawang Lhendup	Nganglam	Norbugang	Pemagatshel	0.89	89.10
64	Deki Phuntsho	Nganglam	Norbugang	Pemagatshel	2.69	268.60
65	Sangay Dorji	Nganglam	Norbugang	Pemagatshel	2.875	287.50
66	Kesang Wangchuk	Nganglam	Norbugang	Pemagatshel	0.52	52.00
67	Yonten Jamtsho	Nganglam	Norbugang	Pemagatshel	0.51	50.70
68	Zangpo Dorji	Nganglam	Norbugang	Pemagatshel	2.00	200.40
					28.12	2812.20
69	Late Rinchen	Chorkorling	Chorkorling	Pemagatshel	0.83	82.50
70	Kelzang Wangdi	Chorkorling	Chorkorling	Pemagatshel	5.62	562.10
71	Namkey Gyeltshen	Chorkorling	Chorkorling	Pemagatshel	2.09	208.80
72	Dorji Rinchen	Chorkorling	Chorkorling	Pemagatshel	1.28	128.20
73	Yoezer	Chorkorling	Chorkorling	Pemagatshel	5.10	509.80
74	Namshi Dema	Chorkorling	Chorkorling	Pemagatshel	7.937	793.70
75	Singye	Chorkorling	Chorkorling	Pemagatshel	2.529	252.90
76	Kezang Thinley	Chorkorling	Chorkorling	Pemagatshel	2.216	221.60
77	Sangay Lhadon	Chorkorling	Chorkorling	Pemagatshel	3.235	323.50
78	Kesang Deki	Chorkorling	Chorkorling	Pemagatshel	3.574	357.40
79	Ugyen Wangda	Chorkorling	Chorkorling	Pemagatshel	3.602	360.20
80	Samten	Chorkorling	Chorkorling	Pemagatshel	1.728	172.80
81	Phuntsho	Chorkorling	Chorkorling	Pemagatshel	4.112	411.20
82	Damtse Lhamo	Chorkorling	Chorkorling	Pemagatshel	1.169	116.90
83	Miser Gi Lhakhang	Chorkorling	Chorkorling	Pemagatshel	5.347	534.70
84	Thinlay	Chorkorling	Chorkorling	Pemagatshel	0.482	48.20
85	Jinpa Zangpo	Chorkorling	Chorkorling	Pemagatshel	7.041	704.10
86	Tseyee Lhamo	Chorkorling	Chorkorling	Pemagatshel	2.746	274.60
87	Tshering Gempo	Chorkorling	Chorkorling	Pemagatshel	2.130	213.00

88	Chonyi	Chorkorling	Chorkorling	Pemagatshel	4.059	405.90
89	Late Damchoe	Chorkorling	Chorkorling	Pemagatshel	5.764	576.40
90	Jangchu Khandu	Chorkorling	Chorkorling	Pemagatshel	8.648	864.80
91	Nidup	Chorkorling	Chorkorling	Pemagatshel	2.737	273.70
92	Wangchuk	Chorkorling	Chorkorling	Pemagatshel	0.476	47.60
93	Tsheten Dorji	Chorkorling	Chorkorling	Pemagatshel	1.995	199.50
94	Pema Gyeltshen	Chorkorling	Chorkorling	Pemagatshel	0.478	47.80
95	Tshewang Tashi	Chorkorling	Chorkorling	Pemagatshel	0.377	37.70
96	Kinzang Chegay	Chorkorling	Chorkorling	Pemagatshel	0.444	44.40
97	Sangay Lhadon	Chorkorling	Chorkorling	Pemagatshel	2.961	296.10
98	Ana Daza	Chorkorling	Chorkorling	Pemagatshel	2.754	275.40
99	Thukten Tshering	Chorkorling	Chorkorling	Pemagatshel	0.616	61.60
100	Ngawang Norbu	Chorkorling	Chorkorling	Pemagatshel	0.875	87.50
101	Samden	Chorkorling	Chorkorling	Pemagatshel	0.908	90.80
102	Khordey Chezang	Chorkorling	Chorkorling	Pemagatshel	0.383	38.30000
103	Goenpa Nymin	Chorkorling	Chorkorling	Pemagatshel	0.864	86.40000
104	Sangay Nidup	Chorkorling	Chorkorling	Pemagatshel	1.442	144.20000
105	Jangchub	Chorkorling	Chorkorling	Pemagatshel	0.600	60.00000
106	Yangchen Lhamo	Chorkorling	Chorkorling	Pemagatshel	13.569	1356.90000
107	Yeshey Tenzin	Chorkorling	Chorkorling	Pemagatshel	1.495	149.50000
108	Yeshey	Chorkorling	Chorkorling	Pemagatshel	1.210	121.00000
109	Passang	Chorkorling	Chorkorling	Pemagatshel	0.666	66.60000
110	Khandu	Chorkorling	Chorkorling	Pemagatshel	0.964	96.40000
111	Gyeltshen Wangmo	Chorkorling	Chorkorling	Pemagatshel	1.625	162.50000
					118.672	11704.700
112	Tandin Wangmo	Arden	Chorkorling	Pemagatshel	0.494	49.40
113	Bumpa	Arden	Chorkorling	Pemagatshel	0.444	44.400
114	Dechen	Arden	Chorkorling	Pemagatshel	1.036	103.60
115	Chedrupba	Arden	Chorkorling	Pemagatshel	3.701	370.10
116	Yangdon	Arden	Chorkorling	Pemagatshel	3.289	328.90
117	Yangzom	Arden	Chorkorling	Pemagatshel	0.576	57.60
118	Chimi	Arden	Chorkorling	Pemagatshel	0.924	92.40
119	Sonam Tobgay	Arden	Chorkorling	Pemagatshel	2.047	204.70
120	Karma	Arden	Chorkorling	Pemagatshel	0.796	79.60
					13.307	1330.700
121	Dorji Dema	Yargewong	Chorkhorling	Pemagatshel	1.515	151.500
122	Jamyang Choden	Yargewong	Chorkhorling	Pemagatshel	1.341	134.100
123	Sangay Chopel	Yargewong	Chorkhorling	Pemagatshel	0.71	70.70
124	Samdrup	Yargewong	Chorkhorling	Pemagatshel	1.95	194.80
125	Penjor	Yargewong	Chorkhorling	Pemagatshel	2.37	236.60
126	Tongtong Khotso	Yargewong	Chorkhorling	Pemagatshel	1.77	177.30
127	Pema Dorji	Yargewong	Chorkhorling	Pemagatshel	1.02	101.70
128	Zilgon Dorji	Yargewong	Chorkhorling	Pemagatshel	1.00	100.20
					11.67	1166.90
129	Natshok Dorji	Gazawong	Chorkhorling	Pemagatshel	1.686	0.006
					1.69	0.01
		6	2	1	8.37	668.41

1	Sangay (Land affected in urban and rural)	Gaykeri	Deothang	Samdrup Jongkhar	0.1	10
					1.992	199.2
2	Karma Yangchen	Chenari	Deothang	Samdrup Jongkhar	0.604	60.4
3	Sonam Zangpo	Deothang	Deothang	Samdrup Jongkhar	1.326	132.6
4	Tashi Mo	Chenari	Deothang	Samdrup Jongkhar	7.824	782.4
5	Kuenzang Choden	Chenari	Deothang	Samdrup Jongkhar	2.355	235.5
6	Dozang	Chenari	Deothang	Samdrup Jongkhar	0.720	72
7	Kinzang Choden	Chenari	Deothang	Samdrup Jongkhar	0.508	50.8
8	Lhundrup Dorji	Chenari	Deothang	Samdrup Jongkhar	0.394	39.4
9	Nimin	Chenari	Deothang	Samdrup Jongkhar	2.672	267.2
10	Yangzom	Chenari	Deothang	Samdrup Jongkhar	3.595	359.5
11	Sangay Tshewang	Tshengri Goenpa	Deothang	Samdrup Jongkhar	0.113	11.3
12	Sonam Phuntsho	Samdrup Gatshel	Deothang	Samdrup Jongkhar	2.103	210.3
13	Dorji Wangchuk	Samdrup Gatshel	Deothang	Samdrup Jongkhar	1.713	171.3
14	Kezang Doma	Deothang	Deothang	Samdrup Jongkhar	0.908	90.8
15	Bhutan Power Corporation Limited	Deothang	Deothang	Samdrup Jongkhar	0.289	28.9
16	Royal Bhutan Army	Deothang	Deothang	Samdrup Jongkhar	157.569	15756.9
17	Gonor Lhakong Sacha	Deothang	Deothang	Samdrup Jongkhar	0.596	59.6
18	Lhakhang Gi Sachha	Deothang	Deothang	Samdrup Jongkhar	1.812	181.2
19	General Hospital	Deothang	Deothang	Samdrup Jongkhar	6.180	618
20	Dorji Wangmo	Barkadung	Deothang	Samdrup Jongkhar	1.068	106.8
21	Tshomo	Barkadung	Deothang	Samdrup Jongkhar	0.864	86.4
					196.539	19654
22	Tshering Gyelmo	Reshore	Deothang	Samdrup Jongkhar	0.899	89.9
23	Choten Zangmo	Reshore	Deothang	Samdrup Jongkhar	4.116	411.6
24	Tshering Samdrup	Reshore	Deothang	Samdrup Jongkhar	0.249	24.9
25	Nidup Lhamo	Reshore	Deothang	Samdrup Jongkhar	1.228	122.8

26	Tshering Yangdon	Reshore	Deothang	Samdrup Jongkhar	0.731	73.1
27	Sangay Wangmo	Reshore	Deothang	Samdrup Jongkhar	0.529	52.9
28	Sangay Nidup	Reshore	Deothang	Samdrup Jongkhar	0.907	90.7
29	Sangay Choden	Reshore	Deothang	Samdrup Jongkhar	0.523	52.3
30	Sonam Lodey	Reshore	Deothang	Samdrup Jongkhar	0.308	30.8
31	Tshering Chezom	Reshore	Deothang	Samdrup Jongkhar	0.528	52.8
32	Nima Tashi	Reshore	Deothang	Samdrup Jongkhar	0.150	15
33	Pema Cheru	Reshore	Deothang	Samdrup Jongkhar	1.364	136.4
34	Nima Zangmo	Reshore	Deothang	Samdrup Jongkhar	1.103	110.3
35	Singay Dorji	Reshore	Deothang	Samdrup Jongkhar	0.803	80.3
36	Karma Tashi	Reshore	Deothang	Samdrup Jongkhar	0.674	67.4
37	Wangdi	Reshore	Deothang	Samdrup Jongkhar	0.518	51.8
38	Dechen Choden	Reshore	Deothang	Samdrup Jongkhar	3.846	384.6
39	Dawa Choden	Reshore	Deothang	Samdrup Jongkhar	0.438	43.8
40	Tshering Chogyel	Reshore	Deothang	Samdrup Jongkhar	0.979	97.9
41	Wangjay Norbu	Reshore	Deothang	Samdrup Jongkhar	0.260	26
42	Kinzang Peldon	Reshore	Deothang	Samdrup Jongkhar	0.630	63
43	Kinzang Namgay	Reshore	Deothang	Samdrup Jongkhar	0.100	10
44	Dawa Dema	Reshore	Deothang	Samdrup Jongkhar	0.100	10
45	Karma Tshechu	Reshore	Deothang	Samdrup Jongkhar	4.363	436.3
46	Nima Tshering	Reshore	Deothang	Samdrup Jongkhar	0.453	45.3
47	Norbu Zangmo	Reshore	Deothang	Samdrup Jongkhar	1.72	172
48	Tempel	Reshore	Deothang	Samdrup Jongkhar	0.452	45.2
49	Ugyen Zangmo	Reshore	Deothang	Samdrup Jongkhar	0.284	28.4
50	Sangay Dorji	Reshore	Deothang	Samdrup Jongkhar	4.226	422.6
					32.938	3293.800
51	Norbu Tashi	Chenari	Deothang	Samdrup Jongkhar	1.190	119
52	Tenzin	Chenari	Deothang	Samdrup	1.997	199.7

				Jongkhar		
53	Proko	Chenari	Deothang	Samdrup Jongkhar	3.137	313.7
54	Dawa Dema	Chenari	Deothang	Samdrup Jongkhar	1.210	121
55	Karchung	Chenari	Deothang	Samdrup Jongkhar	2.105	210.5
56	Chaksing	Chenari	Deothang	Samdrup Jongkhar	0.740	74
57	Kezang	Chenari	Deothang	Samdrup Jongkhar	1.230	123
58	Phuntsho Wangmo	Chenari	Deothang	Samdrup Jongkhar	0.310	31
59	Yeshimo	Chenari	Deothang	Samdrup Jongkhar	0.530	53
60	Peldon	Chenari	Deothang	Samdrup Jongkhar	0.150	15
61	Gewog Office (Land affected in both rural and urban)	Chenari	Deothang	Samdrup Jongkhar	2.313	231.3
62	Sonam Tobgay	Chenari	Deothang	Samdrup Jongkhar	0.936	93.6
63	Yangchay Dukpa	Chenari	Deothang	Samdrup Jongkhar	0.100	10
64	Choni Dema	Chenari	Deothang	Samdrup Jongkhar	1.186	118.6
65	Kuenzang Choden	Chenari	Deothang	Samdrup Jongkhar	0.260	26
66	Tsheten Dema	Chenari	Deothang	Samdrup Jongkhar	0.290	29
67	Langa Tshering	Chenari	Deothang	Samdrup Jongkhar	0.113	11.3
					17.797	1779.700
68	Sangay Dorji	Deothang throm	Deothang	Samdrup Jongkhar	1.730	173
					1.730	173
69	Lungten Dema	Bangtsho	Deothang	Samdrup Jongkhar	1.101	110.1
70	Tharpo Dukpa	Bangtsho	Deothang	Samdrup Jongkhar	1.579	157.9
71	Jigme	Bangtsho	Deothang	Samdrup Jongkhar	0.690	69
					3.370	337.000
72	Kuchi	Khorpam	Deothang	Samdrup Jongkhar	1.230	123
73	Dawa Gyelmo	Khorpam	Deothang	Samdrup Jongkhar	0.920	92
74	Tshering Dukar	Khorpam	Deothang	Samdrup Jongkhar	1.344	134.4
75	Tshering Wangchuk	Kopur	Deothang	Samdrup Jongkhar	1.300	130
76	Tshering	Khorpam	Deothang	Samdrup Jongkhar	1.120	112

77	Sangay Lhamo	Khorpam	Deothang	Samdrup Jongkhar	0.210	21
78	Deki Pemo	Khorpam	Deothang	Samdrup Jongkhar	2.180	218
					8.304	830.400
79	Karma	Gaykheri	Deothang	Samdrup Jongkhar	0.580	58
					1	58

List of Affected Structures - Private

Sl. No.	Name of the hh head/ organization	Tharm #	Geog	Type of structure affected	Location	No of structures	Compensation amount Nu
1	Tenzin	113	Chorkhorling	Residential (Semi-permanent)	Shuguree	1	104,055
2	Tshering Zangmo	116	Chorkhorling	Commercial (Semi-permanent)	Dezama	1	104,318
3	Sangay Tenzin	117	Chorkhorling	HDP Pipe	Dezama	1	6,751
4	Sangay Yeshe	126	Chorkhorling	Commercial (Semi-permanent)	Dezama	1	241,720
5	Thinley Zangmo	544	Chorkhorling	Residential (Semi-permanent)	Dezama	1	97,949
6	Tshering Wangdi	358	Norbugang	Water Tank	Nganglam	1	140,796
7	Ngawang Lhendup	347	Norbugang	Residential (Semi-permanent)	Drangnalashing	1	198,648
8	Zangpo Dorji	110	Norbugang	Dry wall	Rawoshing Yoe	1	13,925
			Norbugang	Water Tank, Pipes	Rawoshing Yoe	2	87,212
9	Sangay Dorji	461	Chorkhorling	Water Tank, Pipes	Rawoshing Yoe	2	12,438
10	Tenzin Norbu	470	Chorkhorling	Residential (Semi-permanent)	Dezama	1	33,591
11	Bazar community		Nganglam	HDP Pipe	Nganglam	1	13,502
12	Nechen Zangmo	175/190	Chorkhorling	Semi permanent and temporary structure (Residential)	Chokorling	2	116,315
13	Namshi	267	Chorkhorling	Jangchuk chorten	Gazawong	1	18,348
14	Singye	117/26	Chorkhorling	Tshasha chorten	Chokorling	1	

		8					6,192
15	Sonam Choden and Karchungs (Nimin land)	352	Deothang	Temporary structure (Residential)	Deothang	2	120,000
16	Pema Wangdi (Tashi Mo land)	123/175		Semi permanent structure with pillar (Residential and Commercial)	Deothang	1	100,000
17	Yeshe Mo	134		Water tank	Gayzor	2	22,000
				Pipe			
18	Karchung	89/150		Wired fence		1	13,500
19	Chaksing	356		Wired fence		1	3,000
20	Sangay	109		Wired fence		1	7,500
21	Tshering Samdrup	296/133		Wired fence	Kipsey	1	8,650
22	Sangay Dorji	291		Wired fence	Rishore	1	2,700
	Total					28	1,473,110

List of Affected Structures – Public

Sl. No.	Name of the hh head/ organization	Village	Geog	Type of structure affected	Location	Number of structures	Compensation amount Nu
1	Royal Bhutan Army	Deothang		Wired Fence	Deothang	1	1,183,605.42
2	Deothang Primary School			Wired Fence		1	
				Concrete Pillar		1	50,000.00
				Concrete Pillar		1	50,000.00
3	Bhutan Power Corporation Limited			Steel Gate		1	5,699,122.44
				Wired Fence		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Double)		1	
				Electrical pole (Double)		1	
		Gayzor		Electrical pole (Double)	Gayzor	1	
		Dezama	Chorkhorling	Electrical pole (Single)	Dezama	1	360,000.00
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
				Electrical pole (Single)		1	
4	Bhutan Telecom	Deothang		Telephone Pole	Deothang	1	760,203.00
				Telephone Pole		1	
				Telephone Pole		1	

		Gayzor		Telephone Pole	Gayzor	1	
		Deothang		Wiring	Deothang	1	
				Underground wiring	Deothang	1	
5	Thromde and Dzongkhag	Deothang		Water pipe (steel)	Deothang	1	500,000.00
				Water pipe (steel)	Rishore	1	
				Water pipe (steel)	Rishore	1	
6	Nganglam LSS	Nganglam	Nganglam	Water tank	Khalaktangzor	1	61,850.00
				Pipe		1	
				Fence		1	
7	Bazar community	Nganglam	Nganglam	HDP Pipe	Nganglam	1	13,502.00
8	Bhutan Telecom	Nganglam	Norbugang	Telephone pole	Nganglam	1	215,078.00
	Total					36	8893360.86

Annexure 3: List of affected fruit trees

A. List of affected fruit trees (SJ-Dewathang)

Types of Fruit trees							
Sl #	Name of HHs	Tharm #/ House #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
Jack Fruit							
1	Karchung	150/89	Chenari	Deothang	1	3-4 yrs	2440
2	Chaksing	356	Chenari	Deothang	4	10 yrs	14440
3	Kuchi	344	Chenari	Deothang	3	4 yrs	7320
4	Tshering Chejay	Na-3-157	Reshore	Deothang	1	20 yrs	3610
5	Kinzang	135/605	Reshore	Deothang	1	20 yrs	3610
6	Duba	RP no 18	Deothang	Deothang	1	19 yrs	3610
Total					11		35030
Peach							
1	Karchung	150/89	Chenari	Deothang	1	3 yrs	1119
					1	4 yrs	1664
2	Karma	Na-3-128	Chenari	Deothang	3	6 yrs	5076
3	Kuchi	344	Chenari	Deothang	2	7 yrs	3384
4	Pema Cheru	141	Reshore	Deothang	1	4 yrs	1664
5	Cheten Zangmo	132/116	Reshore	Deothang	2	5 yrs	3384
6	Wang Gyeltshen	350	Deothang	Deothang	1	10 yrs	1692
Total					11		17983
Citrus							
1	Sonam Tobgay	606	Chenari	Deothang	15	10 yrs	44175
2	Karma	Na-3-128	Chenari	Deothang	12	3-4 yrs	26016
					20	1 yr	18640
3	Chaksing	356	Chenari	Deothang	4	5 yrs	11780
4	Deki Pemo	Na-3-144	Chenari	Deothang	2	6 yrs	5890
5	Karchung	150/89	Chenari	Deothang	45	5 yrs	132525
6	Kuchi	344	Chenari	Deothang	18	6 yrs	53010
7	Tshering	Na-3-104	Chenari	Deothang	22	5 yrs	64790
8	Pema Cheru	141	Reshore	Deothang	13	4-5 yrs	38285
9	Tshering Chejay	Na-3-157	Reshore	Deothang	9	4-5 yrs	26505
10	Kinzang	135/605	Reshore	Deothang	12	20 yrs	35340
11	Pema Rinzin	687	Reshore	Deothang	2	8 yrs	5890
12	Samten	Na-3-153	Reshore	Deothang	6	5 yrs	17670
13	Dawa Choden/ mangmi dep	Na-3-151	Reshore	Deothang	5	5 yrs	14725
14	Sangay Dorji (Bazaar)	912	Reshore	Deothang	10	5 yrs	29450
15	Kuenzang Choden	399	Deothang	Deothang	6	10 yrs	17670
Total					201		542361
Guava							
1	Karma	Na-3-128	Chenari	Deothang	1	4 yrs	1188
2	Chaksing	356	Chenari	Deothang	1	4 yrs	1188
3	Karchung	150/89	Chenari	Deothang	4	4 yrs	4752
4	Kuchi	344	Chenari	Deothang	3	6 yrs	4470
					3	3 yrs	2952
5	Dawa Choden/ mangmi dep	Na-3-151	Reshore	Deothang	3	5 yrs	4470

Types of Fruit trees							
Sl #	Name of HHs	Tharm #/ House #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
6	Duba	RP no 18	Deothang	Deothang	1	19 yrs	1490
Total					16		20510
Mangoes							
1	Karma	Na-3-128	Chenari	Deothang	8	6 yrs	31840
2	Chaksing	356	Chenari	Deothang	15	10 yrs	59700
3	Deki Pemo	Na-3-144	Chenari	Deothang	1	8 yrs	3980
4	Kuchi	344	Chenari	Deothang	6	5 yrs	23880
					5	3 yrs	10520
5	Tshering Chejay	Na-3-157	Reshore	Deothang	1	20 yrs	3980
6	Kinzang	135/605	Reshore	Deothang	1	10 yrs	3980
7	Cheten Zangmo	132/116	Reshore	Deothang	2	3 yrs	4208
8	Dawa Choden/ mangmi dep	Na-3-151	Reshore	Deothang	5	5 yrs	19900
Total					44		161988
Banana							
1	Karma	Na-3-128	Chenari	Deothang	100	3-4 yrs	17400
2	Sangay	Na-3-128	Gekheri	Deothang	5	4 yrs	870
3	Kezang	Na-3-125	Chenari	Deothang	800	10 yrs	139200
4	Chaksing	356	Chenari	Deothang	100	10 yrs	17400
5	Deki Pemo	Na-3-144	Chenari	Deothang	104	6 yrs	18096
6	Karchung	150/89	Chenari	Deothang	50	6 yrs	8700
7	Tumpey	735	Korpam/ch enari	Deothang	50	6 yrs	8700
8	Dawa Jemo/Gyelmo	850	Korpam/ chenari	Deothang	30	8 yrs	5220
9	Kuchi	344	Chenari	Deothang	100	8 yrs	17400
10	Cheten Zangmo	132/116	Reshore	Deothang	60	5 yrs	10440
11	Ugyen Tshering		Deothang	Deothang	11	1 yr	1914
12	Gawa Gyelmo	137	Deothang	Deothang	35	1-2 yrs	6090
Total					1445		251430
Pumelo							
1	Chaksing	356	Chenari	Deothang	2	4 yrs	3675.2
Total					2		3675
Plum							
1	Kuchi	344	Chenari	Deothang	3	4 yrs	5532
Total					3		5532
Litchi							
1	Kuchi	344	Chenari	Deothang	6	3 yrs	11784
2	Cheten Zangmo	132/116	Reshore	Deothang	1	5 yrs	3325
Total					7		15109
Tamarind							
1	Cheten Zangmo	132/116	Reshore	Deothang	1	3 yrs	785
Total					1		785
Dendrocalamus strictus/bamboo							
1	Dawa Choden	Na-3-151	Reshore	Deothang	35	4-6 yrs	3115
2	Tshering Choejay	Na-3-157	Reshore	Deothang	30	4-6 yrs	2670
3	Dozang	135/158	Chenari	Deothang	15	4-6 yrs	1335
4	Sangay Dorji	912	Reshore	Deothang	12	4-6 yrs	1068

Types of Fruit trees							
SI #	Name of HHs	Tharm #/ House #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
5	Lungten	227	Kipsey	Deothang	20	4-6 yrs	1780
6	Norbu Gyemo	Na-3-130	Reshore	Deothang	50	4-6 yrs	4450
7	Tshering Wangchuk	Na-3-35	Reshore	Deothang	20	4-6 yrs	1780
8	Pema Rinzin	687	Reshore	Deothang	50	4-6 yrs	4450
9	Chomden	Na-3-116	Reshore	Deothang	40	4-6 yrs	3560
10	Namgyel Mo	294	Reshore	Deothang	55	4-6 yrs	4895
11	Cheten Zangmo	132/116	Reshore	Deothang	100	4-6 yrs	8900
12	Dechen Choden	636/129	Reshore	Deothang	25	4-6 yrs	2225
13	Tshering Samdrup	133	Deothang	Deothang	250	4-6 yrs	22250
14	Sonam Loday	133	Reshore	Deothang	15	4-6 yrs	1335
15	Pema Tashi	Na-3-162	Reshore	Deothang	55	4-6 yrs	4895
16	Pema Tenzin	130	Reshore	Deothang	25	4-6 yrs	2225
17	Sonam Tobgay	606	Chenari	Deothang	100	4-6 yrs	8900
18	Tenzin Wangchuk	Na-3-133	Chenari	Deothang	150	4-6 yrs	13350
19	Proko	515	Chenari	Deothang	50	4-6 yrs	4450
20	Karma	Na-3-128	Chenari	Deothang	80	4-6 yrs	7120
21	Sangay	Na-3-128	Gekhari	Deothang	60	4-6 yrs	5340
22	Kelzang/Phunts ho Wangmo	Na-3-125	Chenari	Deothang	100	4-6 yrs	8900
23	Chaksing	356	Chenari	Deothang	180	4-6 yrs	16020
24	Wangdi Gyeltshen	144/114	Korpam	Deothang	5	4-6 yrs	445
25	Karchung	150/89	Chenari	Deothang	50	4-6 yrs	4450
26	Deki Pema	150	Korpam	Deothang	20	4-6 yrs	1780
				Deothang	300	4-6 yrs	26700
27	Tumpey	735	Korpam	Deothang	50	4-6 yrs	4450
					30	4-6 yrs	2670
28	Tsendi	Na-3-145	Korpam	Deothang	20	4-6 yrs	1780
29	Dawa Dolma/ Dawa Dema	515	Reshore	Deothang	280	4-6 yrs	24920
30	Dawa Gemo	850	Korpam	Deothang	55	4-6 yrs	4895
31	Pema Lhadon	Na-3-119	Chenari	Deothang	40	4-6 yrs	3560
32	Kuchi	344	Chenari	Deothang	180	4-6 yrs	16020
33	Tshering	Na-3-104	Chenari	Deothang	180	4-6 yrs	16020
34	Sangay Dorji	912	Reshore	Deothang	60	4-6 yrs	5340
35	Tashi Tobgay	179	Deothang	Deothang	110	2-3 yrs	1210
36	Kota	RP no 8	Deothang	Deothang	32	6 yrs	2848
37	Tshering Dorji	475	Deothang	Deothang	54	6 yrs	4806
Total					2983		256907

B. List of affected fruit trees (Nganglam)

SI #	Name of HHs	Tharm #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
Jack Fruit							
1	Tenzin	113	Dezema	Chokorling	1	4 yrs	2440
2	Ugyen Dorji	545	Dezema	Chokorling	1	4 yrs	3610
3	Dorji Seldon	47	Dezema	Chokorling	2	3 yrs	3984

SI #	Name of HHs	Tharm #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
4	Nechen Zangmo (lower survey)	175/190	Chokorling	Chokorling	1	3 yrs	1992
5	Singye	117	Chokorling	Chokorling	1	20 yrs	3610
6	Sonam Tobgay	8	Arden	Chokorling	2	4 yrs	4480
7	Zerkong	-	Arden	Chokorling	1	20 yrs	3610
	Total				9		23726
Guava							
1	Norbu	111	Dezema	Chokorling	3	2 yrs	2340
2	Tenzin	113	Dezema	Chokorling	1	3 yrs	984
3	Monang	112	Dezema	Chokorling	1	5 yrs	1490
4	Sonam Chozom	624	Dezema	Chokorling	1	3 yrs	984
5	Sonam Wangdi	427	Dezema	Chokorling	1	4 yrs	1188
6	Dorji Seldon	47	Dezema	Chokorling	1	5 yrs	1490
7	Kezang Wangdi	297	Yargeywong	Chokorling	8	4 yrs	9504
8	Nechen Zangmo (lower survey)	175/190	Chokorling	Chokorling	3	3 yrs	2952
9	Thukten	7	Arden	Chokorling	4	3 yrs	3936
10	Sonam Tobgay	8	Arden	Chokorling	7	5 yrs	10430
	Total				30		35298
Mangoes							
1	Tenzin	113	Dezema	Chokorling	1	3 yrs	2104
2	Dawa Rinzin	368	Dezema	Chokorling	1	4 yrs	3980
3	Kinzang Lhamo	506	Dezema	Chokorling	1	4 yrs	3980
4	Ngawang Lhendup	347	Dezema	Chokorling	2	4 yrs	5288
					1	1 yrs	1024
5	Cheki Wangmo	520	Dezema	Chokorling	2	3 yrs	4208
6	Kezang Wangdi	279	Yargeywong	Chokorling	7	3 yrs	14728
					3	6 yrs	11940
7	Penjor	594/504	Yargeywong	Chokorling	1	10 yrs	3980
8	Nechen Zangmo	175/190	Chokorling	Chokorling	7	3 yrs	14728
9	Sonam Tobgay	8 thram	Arden	Chokorling	5	4 yrs	13220
10	Zerkong	-	Arden	Chokorling	1	15 yrs	3980
	Total				32		83160
Peach							
1	Monang	112	Dezema	Chokorling	1	5 yrs	1692
2	Sangay Tenzin	117	Dezema	Chokorling	1	5 yrs	1692
3	Tshering Zangmo	116	Dezema	Chokorling	1	2 yrs	930
4	Dorji Seldon	47	Dezema	Chokorling	1	5 yrs	1692
5	Kezang Wangdi	279	Yargeywong	Chokorling	1	4 yrs	1664
6	Nechen Zangmo (lower survey)	175/190	Chokorling	Chokorling	1	2 yrs	930
					1	6 yrs	1692
	Total				7		10292
Banana							
1	Norbu	111	Dezema	Chokorling	101	4 yrs	17574
2	Monang	112	Dezema	Chokorling	4	4 yrs	696
3	Tashi Phuntsho	119	Dezema	Chokorling	3	4 yrs	522
4	Sangay Tenzin	117	Dezema	Chokorling	7	5 yrs	1218
5	Tshering Zangmo	116	Dezema	Chokorling	35	5 yrs	6090
6	Thukten Rabgay	344	Dezema	Chokorling	1	5 yrs	174
7	Samten Choden	413	Dezema	Chokorling	6	3 yrs	1044

SI #	Name of HHs	Tharm #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
8	Dawa Norbu	419	Dezema	Chokorling	3	5 yrs	522
9	Drami	626	Dezema	Chokorling	6	3 yrs	1044
10	Kezang Choden	625	Dezema	Chokorling	1	2 yrs	174
11	Kinzang Chophel	153	Dezema	Chokorling	6	3 yrs	1044
12	Yagtong	130	Dezema	Chokorling	81	3 yrs	14094
13	Dawa Tshering	79	Dezema	Chokorling	4	2 yrs	696
14	Dorji Yurung	496	Dezema	Chokorling	57	3 yrs	9918
15	Norbu Rinzin	394	Dezema	Chokorling	9	4 yrs	1566
16	Sangay Yeshe	126	Dezema	Chokorling	13	4 yrs	2262
17	Kinzang Rinchen	142	Dezema	Chokorling	1	3 yrs	174
18	Ata Barma	128	Dezema	Chokorling	7	3 yrs	1218
19	Mijur Tempa	133	Dezema	Chokorling	6	2 yrs	1044
20	Sonam Wangdi	427	Dezema	Chokorling	53	5 yrs	9222
21	Dorji Seldon	47	Dezema	Chokorling	16	3 yrs	2784
22	Kinzang Lhamo	506	Dezema	Chokorling	2	2 yrs	348
23	Jamba Dorji	-	Dezema	Chokorling	7	4 yrs	1218
24	Zangpo Dorji	110	Dezema	Chokorling	28	5 yrs	4872
25	Ngawang Lhendup	347	Dezema	Chokorling	39	5 yrs	6786
26	Cheki wangmo	520	Dezema	Chokorling	10	3 yrs	1740
27	Kunzang Norzom	144	Dezema	Chokorling	62	5 yrs	10788
28	Daza	623	Dezema	Chokorling	3	3 yrs	522
29	Kinzang Wangdi	361	Dezema	Chokorling	1	4 yrs	174
30	Tshering Wangdi	358/356	Nganglam	Norbugang	78	5 yrs	13572
31	Dorji Tshering	-	Yargeywong	Chokorling	4	3 yrs	696
32	Penjor	594/504	Yargeywong	Chokorling	25	10 yrs	4350
33	Tenzin	277	Yargeywong	Chokorling	9	4 yrs	1566
34	Norbu	262	Yargeywong	Chokorling	50	8 yrs	8700
35	Phurba	142	Yargeywong	Chokorling	200	9 yrs	34800
36	Naktsho Dorji	103/201	Chokorling	Chokorling	4	5 yrs	696
37	Sangay Nedup	200/102	Chokorling	Chokorling	9	4 yrs	1566
38	Jangchuk	202/273	Chokorling	Chokorling	13	8 yrs	2262
39	Tsheten Dorji	101	Chokorling	Chokorling	8	6 yrs	1392
40	Yangchen Lhamo	144/149	Chokorling	Chokorling	18	7 yrs	3132
41	Khandu	112	Chokorling	Chokorling	10	5 yrs	1740
42	Passang	194	Chokorling	Chokorling	5	4 yrs	870
43	Nechen Zangmo (lower survey)	175/190	Chokorling	Chokorling	40	7 yrs	6960
44	Khandu Wangdi	171	Arden	Chokorling	22	3 yrs	3828
					7	6 yrs	1218
45	Sonam Tobgay	8	Arden	Chokorling	43	9 yrs	7482
46	Choduba	6	Arden	Chokorling	45	6 yrs	7830
Total					1162		202188
Bamboo							
1	Norbu	111	Dezema	Chokorling	900	7 yrs	80100
2	Tashi Phuentsho	119	Dezema	Chokorling	3	3 yrs	33

SI #	Name of HHs	Tharm #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
3	Sangay Tenzin	117	Dezema	Chokorling	80	6 yrs	7120
4	Tshering Zangmo	116	Dezema	Chokorling	1000	8 yrs	89000
5	Thukten Rabgay	344	Dezema	Chokorling	5	3 yrs	55
6	Samten Choden	413	Dezema	Chokorling	6	4 yrs	264
7	Drami	626	Dezema	Chokorling	33	5 yrs	2937
8	Kezang Choden	625	Dezema	Chokorling	16	10 yrs	1424
9	Sonam Chozom	624	Dezema	Chokorling	73	6 yrs	6497
10	Kinzang Chophel	153	Dezema	Chokorling	190	6 yrs	16910
11	Tenzin Norbu	470	Dezema	Chokorling	102	7 yrs	9078
12	Yagtong	130	Dezema	Chokorling	18	3 yrs	198
13	Dawa Tshering	79	Dezema	Chokorling	20	8 yrs	1780
14	Sangay Yeshe	126	Dezema	Chokorling	191	4 yrs	16999
15	Sonam Wangdi	427	Dezema	Chokorling	8	8 yrs	712
16	Dawa Rinzin	368	Dezema	Chokorling	90	7 yrs	8010
17	Dorji Seldon	47	Dezema	Chokorling	149	5 yrs	13261
18	Kinzang Lhamo	506	Dezema	Chokorling	35	5 yrs	3115
19	Tshering Wangchuk	489	Dezema	Chokorling	6	3 yrs	66
20	Jamba Dorji	110	Dezema	Chokorling	25	7 yrs	2225
21	Kunzang Norzom	144	Dezema	Chokorling	2	3 yrs	22
22	Tshering Wangdi	358/356	Dezema	Chokorling	110	8 yrs	9790
23	Kezang Wangdi	297	Yargeywong	Chokorling	428	9 yrs	38092
24	Dorji Tshering	-	Yargeywong	Chokorling	350	6 yrs	31150
25	Penjor	594/504	Yargeywong	Chokorling	75	10 yrs	6675
26	Pema Dorji	540	Yargeywong	Chokorling	100	10 yrs	8900
27	Jangchuk wangdi	599	Yargeywong	Chokorling	220	12 yrs	19580
28	Tenzin	277	Yargeywong	Chokorling	30	9 yrs	2670
29	Khordey Chezang	25	Chokorling	Chokorling	60	8 yrs	5340
30	Sangay Nedup	200/102	Chokorling	Chokorling	31	9 yrs	2759
31	Jangchuk	202/273	Chokorling	Chokorling	12	15 yrs	1068
32	Phurpa	142	Chokorling	Chokorling	18	7 yrs	1602
33	Goenpa (lower survey)		Chokorling	Chokorling	150	7 yrs	13350
34	Nechen Zangmo (lower survey)	175/190	Chokorling	Chokorling	3	3 yrs	33
35	Jinpa Zangmo/ Rinchen Wangmo	161	Chokorling	Chokorling	12	8 yrs	1068
36	Phurpa	142	Arden	Chokorling	4	2 yrs	44
37	Khandu Wangchuk	171	Arden	Chokorling	125	10 yrs	11125
38	Wangchuk	157	Arden	Chokorling	31	8 yrs	2759
39	Thukten	7	Arden	Chokorling	2070	7 yrs	184230
40	Sonam Tobgay	8	Arden	Chokorling	140	8 yrs	12460
41	Choduba	6	Arden	Chokorling	265	16 yrs	23585

SI #	Name of HHs	Tharm #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
42	Zerkong		Arden	Chokorling	15	9 yrs	1335
	Total				7201		637421
	Sugarcane						
1	Norbu	111	Dezema	Chokorling	49	4 yrs	147
2	Tenzin	113	Dezema	Chokorling	29	5 yrs	87
	Total				78		234
	Orange						
1	Norbu	111	Dezema	Chokorling	3	4 yrs	8835
2	Tenzin	113	Dezema	Chokorling	30	3 yrs	52680
3	Tenta	640	Dezema	Chokorling	10	4 yrs	29450
4	Tashi Phuntsho	119	Dezema	Chokorling	10	4 yrs	29450
5	Sangay Tenzin	117	Dezema	Chokorling	18	4 yrs	53010
6	Tshering Zangmo	116	Dezema	Chokorling	18	4 yrs	53010
7	Thinley Zangmo	544	Dezema	Chokorling	6	4 yrs	17670
8	Ugyen Dorji	545	Dezema	Chokorling	17	4 yrs	50065
9	Rinchen Dakpa	135	Dezema	Chokorling	12	4 yrs	35340
10	Thukten Rabgay	344	Dezema	Chokorling	14	4 yrs	41230
11	Samten Choden	413	Dezema	Chokorling	5	4 yrs	14725
12	Dawa Norbu	419	Dezema	Chokorling	2	4 yrs	5890
13	Drami	626	Dezema	Chokorling	14	4 yrs	41230
14	Kezang Choden	625	Dezema	Chokorling	2	4 yrs	5890
15	Sonam chozom	624	Dezema	Chokorling	3	4 yrs	8835
16	Kinzang Chophel	153	Dezema	Chokorling	14	4 yrs	41230
17	Younten Jamtsho	523	Dezema	Chokorling	3	4 yrs	8835
18	Yagtong	130	Dezema	Chokorling	5	4 yrs	14725
19	Dawa Tshering	79	Dezema	Chokorling	20	4 yrs	58900
20	Dorji Yurung	496	Dezema	Chokorling	42	4 yrs	123690
21	Norbu Rinzin	394	Dezema	Chokorling	7	4 yrs	20615
22	Dawa Pemo	145	Dezema	Chokorling	12	4 yrs	35340
23	Sangay Yeshey	126	Dezema	Chokorling	100	4 yrs	294500
24	Kinzang Rinchen	142	Dezema	Chokorling	28	4 yrs	82460
25	Ata Barma	128	Dezema	Chokorling	20	4 yrs	58900
26	Mijur Tempa	133	Dezema	Chokorling	2	4 yrs	5890
27	Sonam Wangdi	427	Dezema	Chokorling	15	4 yrs	44175
28	Dawa Rinzin	368	Dezema	Chokorling	101	4 yrs	297445
29	Kinzang Lhamo	506	Dezema	Chokorling	1	4 yrs	2945
30	Zangpo Dorji	110	Dezema	Chokorling	4	4 yrs	11780
31	Kinzang Wangdi	358/356	Dezema	Chokorling	3	4 yrs	8835
32	Kezang Wangdi	279	Yargeywong	Chokorling	125	3 yrs	219500
					100	15 yrs	294500
33	Dorji Tshering	-	Yargeywong	Chokorling	85	18 yrs	250325
34	Penjor	594/504	Yargeywong	Chokorling	47	17 yrs	138415
35	Jangchuk Wangdi	599	Yargeywong	Chokorling	2	4 yrs	4336
36	Norbu	262	Yargeywong	Chokorling	13	10 yrs	38285
37	Dorji lhamo	224	Yargeywong	Chokorling	3	10 yrs	8835
38	Nastho Dorji	201/103	Yargeywong	Chokorling	1	10 yrs	2945
39	Gonpa Nimin	183	Chokorling	Chokorling	6	15 yrs	17670

SI #	Name of HHs	Tharm #	Village	Gewog	No. of Trees	No. of Yrs	Compensation
40	Khentse Rinpoche (natshog)	201	Chokorling	Chokorling	23	18 yrs	67735
41	Khandu	112	Chokorling	Chokorling	24	20 yrs	70680
42	Rinchen Zangmo	176	Chokorling	Chokorling	23	20 yrs	67735
43	Passang	194	Chokorling	Chokorling	18	7 yrs	53010
44	Wangchuk	157	Chokorling	Chokorling	11	8 yrs	32395
45	Goenpa (lower survey)		Chokorling	Chokorling	2	15 yrs	5890
46	Singye	117	Chokorling	Chokorling	7	15 yrs	20615
47	Jinpa Zangmo/ Rinchen Wangmo	161	Chokorling	Chokorling	93	8 yrs	273885
48	Thukten	7	Arden	Chokorling	10	8 yrs	29450
49	Sonam Tobgay	8	Arden	Chokorling	5	15 yrs	14725
50	Zerkong	-	Arden	Chokorling	5	18 yrs	14725
	Total				1144		3183231
	Arecanut						
1	Sangay Yeshey	126	Dezema	Chokorling	23	3 yrs	14812
2	Thukten	7	Arden	Chokorling	6	15 yrs	8430
3	Sonam Tobgay	8	Arden	Chokorling	43	3 yrs	27692
					35	5 yrs	49175
					24	18 yrs	33720
					98	7 yrs	137690
	Total				229		271519
	Pineapple						
1	Kezang wangdi	279	Yargeywang	Chokorling	100	5 yrs	1578
	Total				100		1578
	Litchi						
1	Kezang Wangdi	279	Yargewong	Chokorling	1	3 yrs	1964
2	Nechen Zangmo (lower survey)	175/190	Chokorling	Chokorling	5	4 yrs	12060
3	Sonam Tobgay	8	Arden	Chokorling	1	3 yrs	1964
	Total				7		15988
	Lemon						
1	Penjor	594/504	Yargeywang	Chokorling	1	10 yrs	1820
	Total				1		1820
	Pomelo						
1	Sonam Tobgay	8	Arden	Chokorling	1	10 yrs	2297
	Total				1		2297
	Lime						
1	Sonam Tobgay	8	Arden	Chokorling	2	4 yrs	1624
	Total				2		1624

C. List of Affected Fodder Trees (Pema Gatschel)

Ficus Roxburghii									
1	Phurba	142	Yargeywong	Chokorling	10	30	100	15	2100
Total								15	2100

D. List of Affected Fodder Trees (SJ- Dewathang)

SI #	Name	Tharm #	Village	Gewog	Girth	g ²	Value of 4 Pie	Height (ft)	Cft	Rate	No. of trees	Amount
1	Duba	RP no 18	Deothang	Deothang	3ft 5in	11.67	12.56	7	6.5	241.46	1	1569.49
2	Ugyen Tshering	150	Deothang	Deothang	1ft	1	12.56	3	0.238	241.46	3	172.4024
3	Zangay	135	Reshore	Deothang	2ft 1in	4.33	12.56	15	5.18	241.46	2	2501.526
4	Norbu Gyemo	Na-3-130	Reshore	Deothang	2ft	4	12.56	18	5.73	241.46	3	4150.697
5	Kuchi	344	Chenari	Deothang	2 ft	4	12.56	19	6.0509	241.46	1	1461.05
Total											10	9855.166
Ficus Roxburghii												
1	Cheten Zangmo	132/116	Reshore	Deothang	2ft 7in	6.65	12.56	20	10.59	241.46	2	5114.123
2	Sangay	Na-3-128	Ghekhari	Deothang	3ft	9	12.56	18	12.89	241.46	1	3112.419
Total											3	8226.542
Ficus Semicordata												
1	Tenzin Wangchuk	Na-3-133	Chenari	Deothang	2ft	4	12.56	20	6.36	241.46	1	1535.686
Total											1	1535.686

E. List of Affected Private Forests Trees (Pema Gatshel)

Shubtangshing												
SI #	Name	Tharm #	Village	Gewog	Grith	g ²	Value of 4 Pie	Height (ft)	Cft	Rate	No. of trees	Amount
1	Dorji Tshering	-	Yargeywang	Chokorling	5ft 3in	27.56	12.56	164	359.8	241.46	2	173754.6
2	Sangay Nedup	200/102	Chokorling	Chokorling	2	4	12.56	49	15.6	241.46	1	3766.776
										Total	3	177521
Brungshing												
Hawageeshing												
1	Singye	117	Chokorling	Chokorling	4ft 5in	19.5	12.56	49	76.07	241.46	1	18367.86
2	Thukten	7	Arden	Chokorling	1ft 7in	2.5	12.56	23	4.57	241.46	1	1103.472
	Total										2	19471

F. List of Affected Private Forests Trees (S/J- Dewathang)

Sl.no	Name	Tharm #	Village	Gewog	Seedling	Planting	est+Main	No. of trees	Amount
	<1 foot Grith								
Teak									
1	Sangay Dorji	912	Reshore	Deothang	10	250	28	30	8640
2	Deki Pemo	150	Korpam	Deothang	10	50	nil	8	480
3	Tshering	Na-3-104	Chenari	Deothang	10	250	28	23	6624
	Total							61	15744
Cypress									
1	Chaksing	356	Chenari	Deothang	10	50	28	5	440
2	Kuchi	344	Chenari	Deothang	10	50	28	1	88
	Total							6	528
Solonji									
1	Duba	RP no 18	Deothang	Deothang	10	250	28	1	288
	Total							1	288
Cryptomeria									
1	Duba	RP no 18	Deothang	Deothang	10	250	28	1	288
2	Wang Gyeltshen	350	Deothang	Deothang	10	250	28	1	288
	Total							2	576

							Types of Trees					
							MetchiShing					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g ²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Tashi Mo	175	Deothang	Deothang	5ft 5in	29.33	12.56	10	23.35	241.46	1	5638.091
	Total										1	5638.091

							Types of Trees					
							Chelania					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g ²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Kuenzang Choden	399	Deothang	Deothang	1ft 5in	0.174	12.56	10	0.139	241.46	3	100.68882
2	Kuenzang Choden	399	Deothang	Deothang	4ft 5in	19.5	12.56	15	23.28	241.46	1	5621.1888
	Total										4	5721.87762

							Types of Trees					
							Siris					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g ²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Kuenzang Choden	399	Deothan g	Deothan g	3ft	9	12.56	10	7.16	241.46	1	1728.8536
2	Tashi Tobgay	179	Deothan g	Deothan g	8ft 5in	70.8	12.56	15	84.6	241.46	1	20427.516
	Total										2	22156.3696

							Types of Trees					
							Cypress					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g ²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Tashi Tobgay	179	Deothan g	Deothan g	6ft 1in	37	12.56	20	58.92	261.99	1	15436.4508
2	Tashi Tobgay	179	Deothan g	Deothan g	3ft 6in	12.25	12.56	20	19.5	261.99	1	5108.805
3	Tashi Tobgay	179	Deothan g	Deothan g	2ft 9in	7.56	12.56	20	12	261.99	1	3143.88
	Total										3	23689.1358

							Types of Trees					
							Erithina					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g ²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Tashi Tobgay	179	Deothan g	Deothan g	2ft	4	12.56	8	2.55	241.46	1	615.723
2	Dasho Tshuendula	Na-14-75	Deothan g	Deothan g	6ft 9in	45.56	12.56	15	54.41	241.46	1	13137.8386
	Total										2	13753.5616

							Worangshing					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g ²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Duba	RP no	Deothan	Deothan	3ft	14.0	12.56	10	11.19	241.4	1	2701.9374

		18	g	g	9in	6				6		
2	Duba	RP no 18	Deothan g	Deothan g	2ft 7in	6.67	12.56	10	5.31	241.46	1	1282.1526
	Total										2	3984.09

							Types of Trees					
							Albezia					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Dasho Tshuendula	Na-14-75	Deothan g	Deothan g	5ft 9in	33.06	12.56	15	39.48	250.99	1	9909.0852
2	Tshering Wangchuk	Na-3-35	Reshore	Deothan g	6ft	36	12.56	90	257.96	250.99	2	129490.7608
	Total										3	139399.846

							Types of Trees					
							Gamari					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Ugyen Tshering	150	Deothan g	Deothan g	3ft 8in	13.39	12.56	10	10.66	250.99	1	2675.5534
2	Karchung	150	Chenari	Deothan g	1ft	1	12.56	70	5.57	250.99	2	2796.0286
3	Chaksing	356	Chenari	Deothan g	1ft 1in	1.17	12.56	60	5.6	250.99	2	2811.088
	Total										5	8282.67

							Types of Trees					
							Doubangia grandifolia					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Tshering Choejay	Na-3-357	Reshore	Deothan g	1ft 1in	1.17	12.56	10	0.931	250.99	1	233.67169
2	Lungten	227	Kipsey	Deothan g	1ft 7in	2.506	12.56	120	23.94	250.99	1	6008.7006
3	Sangay Wangchuk		Reshore	Deothan g	2ft	4	12.56	130	41.4	250.99	1	10390.986

	Total										3	16633.35829
--	--------------	--	--	--	--	--	--	--	--	--	---	--------------------

							Types of Trees					
							Sterculi Villosa					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Tshering Choejay	Na-3-357	Reshore	Deothan g	1ft 1in	1.17	12.56	100	9.31	241.46	1	2247.9926
	Total										1	2247.9926

							Types of Trees					
							Bombax Cieba					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Deki Pemo	150	Korpam	Deothan g	2ft 3in	5.06	12.56	115	46.35	241.46	2	22383.342
2	Kuchi	344	Chenari	Deothan g	2ft 7in	6.671	12.56	20	10.62	241.46	1	2564.3052
	Total										3	24947.6472

							Types of Trees					
							Castonopsis					
Sl.no	Name	Tharm #	Village	Gewog	Grith	g²	Value of 4 Pie	Height(ft)	Cft	Rate	No. of trees	Amount
1	Sangay Dorji	912	Reshore	Deothan g	1ft 3in	1.56	12.56	96	11.94	241.46	2	5766.0648
	Total										2	5766.0648

Vulnerable Households

Sl.	Name	CID No.	Gender	Thram	Village	Geog	Category
1	Bumpa	11106000156	F	329	Arden	Chorkhorling	1
2	TandinWangmo	11106000067	F	330	Arden	Chorkhorling	1
3	Yangzom	11106000155	F	331	Arden	Chorkhorling	1
4	DramtshiLhamo	11106000794	F	269	Chokhorling	Chorkhorling	2
5	SangayLhadon	11106000920	F	327	Chokhorling	Chorkhorling	2
6	Monang	11106001079	F	112	Dezama	Chorkhorling	1,2,3
7	TashiPhuntsho	11106001165	M	119	Dezama	Chorkhorling	3
8	KuenzangChophel	11106001326	M	132	Dezama	Chorkhorling	1
9	Wagtsa	11106001337	M	133	Dezama	Chorkhorling	1
10	TsheringDorji	11106001251	M	137	Dezama	Chorkhorling	3
11	KuenzangNorzom	11106003609	F	144	Dezama	Chorkhorling	1,3
12	DechenWangdi	11106001141	M	381	Dezama	Chorkhorling	3
13	DechenChophel	11101001970	M	391	Dezama	Chorkhorling	3
14	SamtenWangmo	11106001209	F	460	Dezama	Chorkhorling	2
15	ThinleyDorji	11106001068	M	522	Dezama	Chorkhorling	1
16	UgyenDorji	11106001154	M	545	Dezama	Chorkhorling	1
17	SonamChezom	11106001340	F	624	Dezama	Chorkhorling	1
18	KesangChoden	11106001341	F	625	Dezama	Chorkhorling	1
19	JamyangChoden	11106000453	F	58	Yargewong	Chorkhorling	3
20	SangayChoephel	11106005491	M	600	Yargewong	Chorkhorling	3
21	JangchubKhandu	11106000574	M	210	Chorkorling	Chorkorling	3
22	Phuntsho	11106000733	M	255	Chorkorling	Chorkorling	3
23	Damcho	11106000884	F	264	Chorkorling	Chorkorling	3
24	NamshiDema	11106000828	F	267	Chorkorling	Chorkorling	1,3
25	ChoniDema	11106000424	F	634	Chorkorling	Chorkorling	3
26	Jigme	11107000676	M	593	Bangtsho	Deothang	3
27	LungtenDema	11107000278	F	781	Bangtsho	Deothang	3
28	Proko	11107001692	M	103	Chenari	Deothang	3
29	Yeshi Mo	11107001799	F	134	Chenari	Deothang	3
30	Chaksing	11107001826	M	358	Chenari	Deothang	3
31	Karchung	11107001461	M	89/150	Chenari	Deothang	3
32	DawaDema	11107001703	M	657	Chennarie	Deothang	3
33	SangayDorji	11107002123	M	415	Deothang	Deothang	3
34	Late Karma	11107001485	M	782	Gaykeri	Deothang	3
35	DekiPemo	11107001560	F	129	Khorpam	Deothang	1,3
36	TsheringDukar	11107001733	F	339	Khorpam	Deothang	3
37	Kuchi	11107001443	F	344	Khorpam	Deothang	1
38	DawaGyelmo	11107001431	F	345	Khorpam	Deothang	3
39	Tshering	11107001562	M	654	Khorpam	Deothang	3
40	DawaChoden	11107001662	F	101	Reshore	Deothang	1,3
41	ChortenZangmo	11107006067	F	116	Reshore	Deothang	3
42	PemaCheru	10902000547	M	141	Reshore	Deothang	3
43	Temphe	11107006011	M	280	Reshore	Deothang	3
44	NorbuZangmo	11107006063	F	290	Reshore	Deothang	3
45	TsheringSamdrup	11107005915	M	296	Reshore	Deothang	4
46	TsheringYangden	11107002789	F	401	Reshore	Deothang	3
47	WangjayNorbu	11107005917	M	610	Reshore	Deothang	3
48	KinzangPeldon	11107005918	F	611	Reshore	Deothang	3
49	SangayNidup	11107006056	M	709	Reshore	Deothang	4,3
50	SonamLoday	11106000090	M	711	Reshore	Deothang	3
51	SangayChoden	11107005986	M	712	Reshore	Deothang	3
52	NimaZangmo	11107005941	F	718	Reshore	Deothang	3
53	TsheringGyelmo	11107006013	F	739	Reshore	Deothang	3
54	NimaTshering	11107006012	M	740	Reshore	Deothang	3
55	SingayDorji	11107006029	M	742	Reshore	Deothang	3

Category:

1. Disabled and old members in the households
2. Women-headed poor households
3. Households having less than 1.5 acres of land and losing more than 10% to project
4. Food insecure households who depend on their relatives.

List of Participants in Meetings and Focus Group Discussions

C) List of participants in Group Meetings











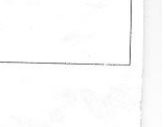




Date and time of meeting: 22/09/2013

Venue: Chokhorling meeting place














Location: Chokhorling, Ngazun.

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Kelsang Wangdi	M	Dry land	cho.	cho	
2.	Sinpa Zangpo	M	Dry land + orchard	-11-	-11-	
3.	Sangay Nidup	F	Dry land and orchard.	-11-	-11-	
4.	Sangay Kaden	F	dry land	-11-	-11-	
5.	Khordey Chezang	M	dry land			
6.	Yoezer	M	Dry land	-11-	-11-	
7.	Dawa Norbu.	M	Dry land	-11-	-11-	
8.	Wangchuk	M	Dry land	-11-	-11-	
9.	Tshering Gembu	M	Dry land	-11-	-11-	
10.	Klamkhe Gyeltshen	M	Dry land	-11-	-11-	
11.	Dzgen Wangdar	M	Dry land and	-11-	-11-	
12.	Kezang deki	F	Dry land	-11-	-11-	

13.	Samden	M	dry land 2 plots	cho	cho	
14.	Herin Tengin	M	dry land	cho	cho	
15.	Singye	M	dry land	-11-	-11-	
16.	Tangchen Lhamo	F	dry land orange	-11-	-11-	
17.	Chonyo	F	dry land 1+2+1+2	-11-	-11-	
18.	Ngawang Norbu	M	dry land	-11-	-11-	
19.	Ana Dags	F	dry land	-11-	-11-	
20.	Phuntsho	M	dry land	-11-	-11-	
21.	Kinchen	M	orchard & dry	-11-	-11-	
22.	Gyeltshen Wangmo	F	dry land + plots	-11-	-11-	
23.	Damtse Lhamo	F	dry land	-11-	-11-	
24.	Pasang	M	dry land 2 plots	-11-	-11-	
25.	Khandu	M	dry land 5.40 decimal	-11-	-11-	
26.	Tsagjee Lhamo	F	dry land	-11-	-11-	
27.	Namshi Pemis	F	dry land + orchard	-11-	-11-	
28.	Tangchiyachandu	M	dry land	-11-	-11-	
29.	Pema Gyeltshen	M	dry land	-11-	-11-	
30.	Ishewang Lashi	M	dry land	-11-	-11-	

As
seen
to
be
because
it belongs
to
Kimpiche

30. Tsheten Dorji M dry land -11- -11-  
31. Gyeltshenwaymo F dry land -11- -11-  
32. Norlupla M dry land -11- -11- → 
33. Yeshi Dorji M -11- -11- -11- →  
34. Thinley M -11- -11- →  
35. Jangchub M orchard -11- → 
36. Dorji Rinchen M dry land -11- → 
37. Choerpa alernin F dry land -11- → 
38. Kezang Nulay M dry land -11- → 

C2: List of affected vulnerable households who attended the meeting

Sl No	Name	Male/ Female	Type of affected property (land, houses etc)	Village	Gewog	Why vulnerable?*
1.	Dramtse Khame	F	dry land	cho	cho	- head of household - children go to school
2.	Yoezar	M	dry land	-/-	-/-	- no children - depends on apple
3.	Sangay Kharon	F	dry land	-/-	-/-	- health problems - no income earning
4.	Singye	M	dry land	-/-	-/-	- Both husband & wife can't work
5.	Singye			-/-	-/-	- depends on son who is in school
6.	Khanda	M	dry land			- farmer and depends on his son who is in school
7.						- one child goes to school
8.						

* Please provide more details eg very small land holding (< 1 acre), income below poverty line, food insecure many members in the hh, etc.

C3: List of other participants (Gup, Tshogpas, Dzongkhag staff, DoR staff)

Sl No	Names	Designation	Organization	Signature
1	Kunzang Rabten	Tshogpa	Gewog	
2	Vigen Dangi	clerk	Gewog	
3				
4				
5				
6				
7				
8				
9				







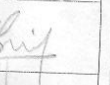





C) List of participants in Group Meetings

Date and time of meeting: 21/09/2013.

Venue: Dzama Chorten.

Location: Dzama Nganglam.

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Ugyen Dorji	m	land & fruit trees	Dzama	Chokhorling	
2.	Sangay Tenzin	m	dryland, fruit trees & structure	Dzama	Chokhorling	
3.	Kinzang Rinchen	m	orchard	Dzama	Chokhorling	
4.	Tashi Phuntsok	m	orchard	Dzama	Chokhorling	
5.	Dawa Gyeltzen	m	dry land + orchard	Dzama	Chokhorling	
6.	Norbu Rinchen	m	dryland & fruit trees	Dzama	Chokhorling	
7.	Ugyen Tshering	m	land (dry)	Dzama	Chokhorling	
8.	Shinley Dorji	m	land (dry)	Dzama	Chokhorling	
9.	Samten Lhendup	m	land, (dry)	Dzama	Chokhorling	
10.	Dechen Dorji	m	orchard	Dzama	Chokhorling	
11.	Soram Wangchuk	m	dryland	Dzama	Chokhorling	
12.	Dorji Kinzang	m	orchard	Dzama	Chokhorling	

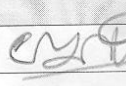
13.	Choki Gyeltshen	m	land (dry) + orchard	Drama	chothorling	<i>[Signature]</i>
14.	Sangay chedup	m	orchard	Drama	chothorling	<i>Sangay</i>
15.	Dawa Norbu	m	dry land	Drama	chothorling	<i>[Signature]</i>
16.	Dorji Yurung	m	orchard	Drama	chothorling	<i>[Signature]</i>
17.	Norbu	m	dry land	Drama	chothorling	<i>[Signature]</i>
18.	Tshering Langchuk	m	dry land	Drama	chothorling	<i>[Signature]</i>
19.	Sonam Chozen	m	orchard	Drama	chothorling	<i>[Signature]</i>
20.	Sangay Yeshey	m	dry land + orchard	Drama	chothorling	<i>[Signature]</i>
21.	Drami	m	dry land + orchard			
22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						

C2: List of affected vulnerable households who attended the meeting

Sl No	Name	Male/ Female	Type of affected property (land, houses etc)	Village	Gewog	Why vulnerable?*
1.	Samten Wangmo	F	dry land	Dzeana	Chokoling	Head of household Depends on agriculture & many no children
2.						
3.						
4.						
5.	Monang	F	fruit trees & land	Dzeana	Chokoling	limited land & children of land is affected & don't have any source of income
6.						
7.						
8.						

* Please provide more details eg very small land holding (< 1 acre), income below poverty line, food insecure many members in the hh, etc.

C3: List of other participants (Gup, Tshogpas, Dzongkhag staff, DoR staff)

Sl No	Names	Designation	Organization	Signature
1	Drami	Tshogpa	Gewog	
2				
3				
4				
5				
6				
7				
8				
9				

C) List of participants in Group Meetings

Date and time of meeting: June, 2013

Venue: DIZAMA

Location: Dizama, Nganglam

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Tshering Dorji	Male	Orange Orchard	Dizama	Chhokhorling	
2.	Norbu	Male	Dry land	Dizama	Chhokhorling	
3.	Cyeltsher Norbu	Male	Orange Orchard	Dizama	Chhokhorling	
4.	Dawa Tshering	Male	Orange Orchard	Dizama	Chhokhorling	
5.	Norbu Rinzin	Male	Dry land, Orchard	Dizama	Chhokhorling	
6.	Tenzin	Male	Dry land, orchard	Dizama	Chhokhorling	
7.	Rinchen	Male	Orange Orchard	Dizama	Chhokhorling	
8.	Dorji Seldon	Female	Orange orchard	Dizama	Chhokhorling	
9.	Ogya Dorji	M	Orchard	Dizama	Chhokhorling	
10.	Tshering Zangmo	F	wet land, dry land and orchard	"	"	
11.	Nita Barma	M	Dry land, orchard	"	"	
12.	Tashi Phuntsok	M	Orange orchard	"	"	
13.	Wangtsha	M	orange orchard	"	"	
14.	Sangay Tenzin	M	Orange orchard	"	"	
15.	Nidup Rinchen	M	Dry land	"	"	
16.	Tenta	M	Orange orchard	"	"	
17.	Braui	M	Orange orchard	"	"	
18.	Yonten Jantsok	M	Dry land	Drangmo Easton	Norbugang	
	Tenzin Norbu	M	Orchard	Dizama	Chhokhorling	

C) List of participants in Group Meetings

Date and time of meeting: 28/9/2013, 11 a.m

Venue:

Location: JNP Hall, Jigme Namgyel Polytechnic Derasa

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Dasho Throga	M	Not Affected			
2.	Jamuna Radhan	F	Not Affected			
3.	Pezum	F	Not Affected			
4.	Sonam	F	Not Affected			
5.	Ugyen peljos	M	Not Affected			
6.	Tashi Tobjay	M	Trees	Kipang	Deothang	
7.	Tashi Dooji	M	Not Affected			
8.	Dancho Dooji	F	Not Affected			
9.	Yanzen	F	Land	Chenari	Deothang	
10.	Gwerykhe	M	Not Affected			
11.	Kelzen	F	Land/Tree	Chenari	Deothang	
12.	Thinley Namgye	M	Not Affected			
13.	Duba	M	Trees	Deothang	Deothang	
14.	Norkey	F	Not Affected			
15.	Syeldon	F	Not Affected			
16.	Dema		Not Affected			
17.						
18.						

C) List of participants in Group Meetings

Date and time of meeting: 28/9/2013, 11 a.m

Venue:

Location: JNP Hall, Jigme Nangyel Polytechnic Derasa

C1: List of ALL Affected Households who attended the meeting.

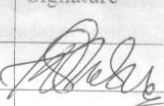
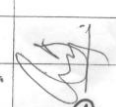
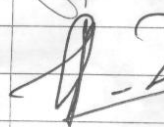
Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Dasho Throga	M	Not Affected			
2.	Jamuna Radhan	F	Not Affected			
3.	Pezum	F	Not Affected			
4.	Sonam	F	Not Affected			
5.	Ugyen peljos	M	Not Affected			
6.	Tashi Tobjay	M	Trees	Kipang	Deothang	
7.	Tashi Dooji	M	Not Affected			
8.	Dancho Dooji	F	Not Affected			
9.	Yanzen	F	Land	Chenari	Deothang	
10.	Gwerykhe	M	Not Affected			
11.	Kelzen	F	Land/Tree	Chenari	Deothang	
12.	Thinley Nanggye	M	Not Affected			
13.	Duba	M	Trees	Deothang	Deothang	
14.	Norkey	F	Not Affected			
15.	Syeldon	F	Not Affected			
16.	Dema		Not Affected			
17.						
18.						

C2: List of affected vulnerable households who attended the meeting

Sl No	Name	Male/ Female	Type of affected property (land, houses etc)	Village	Gewog	Why vulnerable?*
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

* Please provide more details eg very small land holding (< 1 acre), income below poverty line, food insecure many members in the hh, etc.

C3: List of other participants (Gup, Tshogpas, Dzongkhag staff, DoR staff), Thrompon

Sl No	Names	Designation	Organization	Signature
1	Dasho Thrompon	Thrompon	Thomde	
2	Karna Sherab			
3				
4	Aun De - ch		Thromde	
5			S/ Tongkhar	
6	Tashi Tobgyal	Thueni		
7		Kipsey		
8				
9				



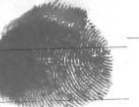





C) List of participants in Group Meetings

Date and time of meeting: 20/9/13

Venue: Amp office

Location: Deothang

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Pema Wangdi	M	Bago	Rishore	Deothang	
2.						
3.	Nimin	F	Land	Chenari	Deothang	
4.						
5.	Sangay	F	Land/Trees	Gaykeri	Deothang	
6.						
7.						
8.	Kota	M	Trees	Kipsey	Deothang	
9.						
10.	Jigme	M	Land	Bangtso	Deothang	
11.						
12.	Sangay chaden	F	Land	Rishore	Deothang	
13.						
14.	Nimin	F	Land	Chenari	Deothang	
15.						
16.	Gawa Lyelmo	F	Trees	Chanari	Deothang	
17.						
18.						




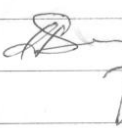
C) List of participants in Group Meetings

Date and time of meeting: 20/9/13

Venue: Cup Office

Location: Deothang

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Pema Wangdi	M	Bago	Rishore	Deothang	
2.						
3.						
4.	Pema Rinzin	M	Trees	Rishore	Deothang	
5.						
6.	Sangay Dorji	M	Land/ Trees	Rishore	Deothang	
7.						
8.	Tashi Dorji	M	Not affected	Sundup Eathel	Deothang	
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						

C2: List of affected vulnerable households who attended the meeting

Sl No	Name	Male/ Female	Type of affected property (land, houses etc)	Village	Gewog	Why vulnerable?*
1.	Tigme	m	Land	Bangtmo	Deothang	His family depends on farming - And his land is Affected -
2.						
3.						
4.						
5.						
6.						
7.						
8.						

* Please provide more details eg very small land holding (< 1 acre), income below poverty line, food insecure many members in the hh, etc.

C3: List of other participants (Gup, Tshogpas, Dzongkhag staff, DoR staff)

Sl No	Names	Designation	Organization	Signature
1	Sangay Pelzang	Gup	C4	Kangay
2				
3				
4				
5				
6				
7				
8				
9				

Participants in Group Meetings

Date of meeting: 20/9/13

Gup Office

Location: Deothang

CI: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/Thumb impression
1.	Kuchi	M	Land/Trees	Kharpam	Deothang	
2.	Namgye Mo	F	Trees	"	"	
3.	Tumpay	F		"	"	
4.	Tumpay	F	Trees	"	"	
5.	Sorani	F				
6.	Chatsing	F	Land/Trees	Chensar	"	
7.	Kalrang Tshomo	F	Not Attended	Kharpam	Deothang	
8.	Kelung Dama	F	Land	Geykher	"	
9.						
10.	Lungten Dama	F	Land	Rangbo	"	
11.	Proko	M	Land/Trees	Chenpr	"	
12.						
13.	Teshi Mo	F	Land	Geyzor	"	
14.						
15.	Karma Yangchen	F	Land	Rishore	"	
16.						
17.	Sorani Chodam	F	Land	Chenpr	"	
18.	Sangay Wangmo	F	Land	Rishore	"	

List of participants in Group Meetings

Date and time of meeting: 20/9/13

Venue: Group office

Location: Deothang

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Gawa Geymo	Female	Tree	Deothang Geyjor	Deothang	
2.	Sanjay Sanjay	M	Land/Tree	Geyjor	Deothang	
3.	Chaksang	F	Land/Trees	Geyjore	Deothang	
4.	Yeshey mo	F	Land/Trees	Geyjore	Deothang	
5.						
6.						
7.						
8.	Dawa Gyelmo	F	Land/Tree	Korpam	Deothang	
9.						
10.	Kezang	F	Land/Tree	Chensai Geyjore	Deothang	
11.						
12.	Kuchey	F	Land/Tree	Geyjore	Deothang	
13.	Chen Dema	F	Land	Geyjore	Deothang	
14.						
15.	Dawa Choden	F	Land/Tree	Rishore	Deothang	
16.						
17.	Dechen Choden	F	Land/tree	Rishore	Deothang	
18.	Pema cheru	M	Land/tree	Rishore	Deothang	
9.11)	Zanjay	M	Tree	Rishore	Deothang	
10.11)	Tumpey	M	Tree	Korpam	Deothang	
11.12)	Chendey	M	NA Affected	Korpam	Deothang	

1732-166

List of participants in Group Meetings










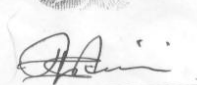
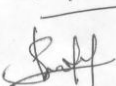



Date and time of meeting:



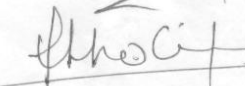
Venue:

Location:

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Kunzang Yangki		Not Affected	Rishore	Deothang	
2.						
3.	Nima Norbu/ Cheten Zangmo	F/m	Land/Trees	Rishore	Deothang	
4.						
5.						
6.	Namgyemo	F	Trees	Rishore	Deothang	
7.	Deki Pem	F	Trees	Karpam	Deothang	
8.						
9.	Lhendrup Dorji	M	Land	Karpam	Deothang	
10.	Nima		Land	Geyico	Deothang	
11.						
12.	Dawa Dema	F	Land/Trees	Karpam	Deothang	
13.						
14.	Wangtu	M	Not Affected	Chinexy	Deothang	
15.	Sangay Choden	F	Land	Rishore	Deothang	
16.						
17.	Tshering Pelden	F	Not Affected	Deothang	Deothang	
18.						
	Tshering Chogyel	M	Land	Rishore	Deothang	
	Pema Rinzin	M	Tree	Rishore	Deothang	
	Duba	M	Trees	Kipsey	Deothang	

Name	Gender	Village	Grews	Signature
27 Mr. Tashi K. O	Female	Land/Tree Gayichet Samdrupgatsel	Deothang	
28 Mr. Lungten Tshering	Male	Land/ Chenari	"	
29 Mr. Wangdi Gyeltshen	Male	Tree kor pam	Deothang	
30 Mrs. Yangzom	Female	Land Chenari Gayichet	Deothang	
31 Mr. Dozang	Male	Land/Tree Chenari	Deothang	
32 Mr. Jamtsho	M	Not Attended	Deothang	Deothang
33 Mr. Sonam Tshewang	M	Not Attended	Samdrupgatsel	Deothang
34 Ms. Kelzang Dema	F	Land Deothang Kipsey	Deothang	
35 Mr. Kota	M	Tree Kipsey	Deothang	
36 Mrs. Kin zang Choden	F	Land/Tree Chenari	"	
37 Mr. Tashi Tobgyel	M	Tree Deothang	"	
38 Mr. Phentsho	M	Not Attended	"	
39 Mr. Pema Tenzin	M	Tree Rishore	"	
40 Mr. Tenzin Jamtsho	M	Not Attended	Samdrupgatsel	
41 Mr. Pema Wangdi	M	Bago Rishore		
42 Karchung	M	Land/Tree Chenari Samdrupgatsel		
43 Jamtsho	M	Not Attended	Deothang	Deothang
44 Pema Wangdi	M	Bago Rishore Gassari	Deothang	

Name.	Gender	Village	Grewag	Signature
Tshewang Gyeltshen	Male	Not Attended Rishore	Deothang	
Kezang Tshomo	Female	Not Attended Kaspam	"	
Sangay Dorji	Male	Land/Tree Rishore	"	
Wangchuk Dema (Chindula lake)	F	Not Attended K. P. Sey	"	
Thinley Choden	F	Not Attended	"	
^{bro} Babjay (Tshugay Dema/Bis)	F	Not Attended	"	

C) List of participants in Group Meetings

Date and time of meeting: 24/9/2013

Venue: Dasho Tashi Dorji House

Location: Deothang Town

C1: List of ALL Affected Households who attended the meeting.

Sl No	Name of the hh Head	Male/ Female	Type of affected property (land, fruit trees, annual crops, others)	Village	Gewog	Signature/ Thumb impression
1.	Ganta Gyelmo	F	Land/Trees	chenari	Deothang	
2.	Nimin	F	Land	chenari	Deothang	
3.	Kinzang choden	F	Land/Trees	chenari	Deothang	
4.	Chendrup Dorji	M	Land	chenari	Deothang	
5.						
6.	Sangay Tshenwang	M	Land	chenari	Deothang	
7.	Kebang Dima	F	Land	Deothang	Deothang	K G
8.	sangay	F	Land	Gekhari	Deothang	
9.	Jamtsho	M	Not Affected	Deothang	Deothang	
10.	Sangay Dorji	M	Land/Trees	Rishore	Deothang	
11.	Chendey	M	Not Affected	Deothang	Deothang	
12.	Lungten	M	" "	Gekhari	Deothang	
13.	chetri	M	Not Affected	Samdruk Gatsel	Deothang	
14.	Tshenag Dorji	M	" "	Kipsey	Deothang	
15.	Tashi Dorji	M	" "	Kapam	Deothang	
16.	Dorag	M	Land/Trees	chenari	Deothang	
17.	Ugyen Penjor	M	Not Affected			
18.						

Census Household Survey Questionnaire for
Affected Households - Nganglam-Deothang Road (ADB - RNPII)

Name of the National Highway	
Name of the Road Section	
Questionnaire date	
Questionnaire No	
Name of the Respondent (Mr / Mrs)	

1. HH Address

House No	
Thram No	
Land Deed Plot No	
Village	
Geog	
Dungkhag	
Dzongkhag	

2. Ownership details

Name of the Head of the household	
Gender of the head of HH	1. Male 2. Female
Age of the head of HH	Yrs
Education level	
Occupation	

3. Household size and family structure

SI No	Names of the HH members	Sex M/F	Age in Yrs	Occupation 1=Farmer 2=Civil servant 3= Business 4=Monks 5=Army 6=Student 7= other	Education level 0=no education 1=Primary 2=Class X 3=High school (CI XII) 4=Graduate 5=Monastic edn 6=Non formal
1					
2					
3					
4					
5					
6					
7					

8					
9					

4. Occupation and income of the family members

Name of the HH Members	Occupation (use codes below)	Skilled in (use codes)	Annual income (Nu)	Handicapped (Yes/No)
Codes	1. Farming own land 2. Tenant farmer 3. Farm wage labour 4. Other wage labour 5. Government service 6. Own business 7. Private Jobs 8. Others (specify)	1. Weaving 2. Carpentry 3. Mason 4. Others		

4a. Is income from agriculture/farming the only source of income? (Yes/No)

4b. If Yes, how many of your family members depend on that income?.....

5. Ethnicity and religion

Religious faith of the household	1. Buddhism 2. Hinduism 3. Others
Ethnicity of the household	1. Drukpa 2. Lhotsampa 3. Sarchhogpa 4.Others

6. Vulnerability: (tick as appropriate)

Sl No	Parameters	Tick Yes/No		Remarks
1	Female headed household	Yes	No	
2	Below Poverty Line (monthly income < Nu 1096.94 per person per month)	Yes	No	Relate this question to the annual income of the hh in section 9.0
3	Landless	Yes	No	If yes, whether he/she is a tenant farmer (Y/N).....
4	Cultivated land (< 1 ac)	Yes	No	What is land holding? acre.....

5	Seasonal food shortages	Yes	No	For how many months.....
6	Most members do not earn any income	Yes	No	How many members (number).....
7	Disabled members in the family	Yes	No	How many members (number).....
8	Flood/Land slide risks	Yes	No	When was last flood/land slide Year)
9	Wild animals damaging crops	Yes	No	Yield lost per year.....kgs

7. Land ownership and land use

Thram No:

Land Type	Registered area (acres, decimals)	Un-registered (acres)	Owner cultivated (acres)	Leased for farming (area)	Fallow (acres)	Why kept fallow?
Dry land						
Wet land						
Orchard land						
Kitchen Garden						
Pasture						
Others						

8. Area and Production (Food crops)

Crops	Area cultivated (acre)	Production (kgs)	Price per kg (if sold/purchased)	Quantity sold if any (kgs)
Rice				
Maize				
Wheat				
Barley				
Buck wheat				
Millet				
Grain legumes				
Mustard				
Others				

7.1 Is the food production enough to meet the household requirement? Yes / No

7.2 Are there seasonal food shortages? Yes / No. If Yes, which months of the year?.....

9. Area and Production (Cash crops/horticulture)

Crops	Area cultivated (acre)	Production (kgs)	Quantity sold if any (kgs)	Estimated annual income Nu
Orange				
Cardamom				
Zinger				
Areca nut				
Vegetables				
Others...				

10. Livestock ownership

Type of livestock owned	Numbers
Cattle	
Lactating cows	
Horses/Mules	
Pigs	
Poultry	

11. Income pattern in last one year (answer against applicable items only)

What are your main sources of income (fill in the relevant ones only)

Sl No	Sources	Annual cash income of the household (Nu)
1.	Sale agricultural products	
2.	Sale of livestock products	
3.	Sale of animals	
4.	Business/trading	
5.	Weaving	
6.	Carpentry jobs	
7.	Casual labour	
8.	House construction works	
9.	Transporting goods (manually)	
10.	Hiring out mules/horses	
11.	Cash remittances received (contribution from employed relatives)	
12.	Others (specify)	
Total household annual income		

12. What are your main expenditures? (Fill in the relevant ones only)

	Type of expenditure	Annual Expenditure Nu
1.	Children schooling expenses	
2.	Purchase of essential food items	
3.	Purchase of agricultural inputs	
4.	Purchase of livestock inputs	
5.	Expenditure on hire of labour	
6.	Purchase of clothes for the family	
7.	Expenses on health	
8.	Expenses on fuel for cooking, lighting	
9.	Cost of repair and maintenance of house	
10.	Rimdo	
11.	Contributions	
12.	Others (specify)	
Total household annual expenditure		

13. Expected Benefits of Road Access

(Please can you tell us the benefits you would expect from road access? [Enumerators/Investigators, please tick spontaneous relevant answers])

Types of benefits	Yes/No
1. Access to marketing of agriculture produce	
2. Improved access to health services	
3. Improved access to education services	
4. Easy access for purchase of basic needs	
5. No benefits from the road	
6.	

14. Awareness on related issues

Issues	YES / NO
1. Do you know that construction of the road may affect your land and other property?	
2. Have you voluntarily contributed land in the past for developmental purpose?	
3. Do you know that you may have to voluntarily contribute land for the road?	

15. Loss of assets due to road alignment

Because of the road construction what type of property are you losing?

14.1 Loss of land

Type of affected land	Unit	Affected Area	% of land affected	Estimated value of affected area
Wet Land	Acre/dec			
Dry land	Acre/dec			
Orchard land	Acre/dec			
Kitchen garden	Acre/dec			
Others	Acre/dec			

Do you know the current market rate of land per decimal in your area? YES / NO

(a) Market rate: Nu_____.

15.3 Loss of other property

Type of other property	Unit	Total affected	Estimated market value* of affected structure Nu
House/other infrastructure	Area in sq ft.		
Cowsheds	Area in sq ft.		
Fence	length in meters		
Boundary wall	length in meters		
Irrigation channel	length in meters		
Others (specify)			

*Market value of the affected residential including costs of materials and labour.

Note: 1 Decimal = 435.6 sq ft.

15.3 Loss of fruit trees

Type of fruit trees	Unit	Age of trees (yrs from planting)	Total numbers lost	Estimated value* (Nu)
Areca nut	numbers			
Banana	numbers			
Cardamom	numbers			
Guava	numbers			
Jackfruit	numbers			
Lemon	numbers			
Lime	numbers			
Litchi	numbers			
Mango	numbers			
Orange	numbers			
Papaya	numbers			
Peach	numbers			
Pear	numbers			
Plum	numbers			
Bamboo	numbers			
Walnut				
Others				

* based on the revised compensation rates 2008

14.4 Loss of Annual Crops (from the field due to road)

Type of crops lost	Total area of crop lost (ac)	Total production lost (kgs)	Estimated value* (Nu)
Rice			
Wheat			
Maize			
Potato			
Others (specify)			

* based on the revised compensation rates 2008

14.5 Loss of common property resources

Types of lost common property	Area/num bers	Value estimated (Nu)	Impact of the loss
Forest access (private/community forest)			
Grazing access			
Irrigation facilities (length in m)			
Community meeting place			
Religious buildings			
Others (specify)			

16. Compensation option preferred by the affected Household (tick)

1	Land for Land	
2	Cash for Land	
3	Structure for the lost structure	
4	Cash for the lost structure	
5	Willingness to donate land without compensation	

17. Please answer the following questions

What benefits do you think the road will bring to your household?	
How do you plan to take advantage of these opportunities?	
What bad things do you think the road will bring?	
How do you plan to limit your risk on these?	
The road is bound to pass through different people's land what do you think about that?	
Do you have any ideas if the road passes through the land of someone who has a very small plot and who stands to lose a lot?	

Are you prepared to contribute land for construction of the road?	
Are you prepared to contribute to the maintenance of the road?	

If an Agriculture tenant/share croppers (this is an additional details which needs to be filled up)

1. Name of head of the household: _____
2. Gender a. Male b. Female ☐
3. No. of children: a. Male b. Female
4. Types of Tenancy: a. Sharecropping b. Land labour c. ☐ Others
5. For how long have you been a tenant of this plot of land? _____yrs/months.
6. Any members of the HH having any kind of skills? Specify.
7. Total area (decimal/acre) of the tenancy plot.
8. Affected area of the tenancy plot _____decimal.
9. Household monthly income Nu. _____.
10. Any other source of income/livelihood? If Yes! Please specify....

General comments (if any):

Road Network Project II (Additional Financing)

Questionnaire for GUP/CHUPON/VILLAGE HEAD-MEN

Questionnaire No

Name of the project:

Name of the Gewog:

1. Basic Administrative and Socio-Demographic Data

1.1 Name of Dzongkhag and Geog:

1.2 Name of Gup:

1.3 Number of settlements in village:

1.4 Distance from village to nearest town:

1.5 Type of access road to main road:

1.6 Settlement pattern of village:

1.7 Number of houses in village:

1.8 Number of female headed households:

1.9 Average household size:

2.0 INFRASTRUCTURE (social and physical)

2.1 Is the village supplied with electricity? A. Yes B. No

2.2 Access to education

Type of School	
a. Primary school	
b. Middle school	
c. High school	
d. Higher secondary school	

Distance to school	a. in village	b. less than 1 km	c. 1-3 km	d. 3-5 km	e. 5+km
Modes of transport	a. walk	b. bus (specify)	c. tractor	d. power tiller	e. others
Travel time:	a. 0-10 min	b. 10-20 min	c. 20-30 min	d. 30+min.	

2.3 Health Care Facility

Type of facility			
Basic Health Unit			
Out Reached Clinic			
Others			

Distance to facility:	a. in village	b. less than 1 km	c. 1-3 km	d. 3-5 km	e. 5+km
Modes of transport	a. walk	b. bus	c. tractor	d. power tiller	others (specify)
Travel time:	a. 0-20 min	b. 20-40 min	c. 40-60 min	d. 60+min.	

2.4 Other Establishments

Other establishments	Numbers.	
a. Market	a. daily b. weekly	a. less than 1 km b. 1-2 km c. 2-3 km d. 3-4 km e. 4-5 km f. more than 5 km
b. Shops	a. daily b. weekly	a. less than 1 km b. 1-2 km c. 2-3 km d. 3-4 km e. 4-5 km f. more than 5 km
c. Post Office	Yes	a. less than 1 km b. 1-2 km c. 2-3 km d. 3-4 km e. 4-5 km f. more than 5 km
d. RNR centers	Yes	a. less than 1 km b. 1-2 km c. 2-3 km d. 3-4 km e. 4-5 km f. more than 5 km
e. Others (specify)	Temple	a. less than 1 km b. 1-2 km c. 2-3 km d. 3-4 km e. 4-5 km f. more than 5 km

2.5 What is/are the present source of water supply in village?

Type	Available	Distance
a. Stream		
b. Tap		
c. Rivers/canal		
d. Reserve tank		
e. Irrigation		
f. Others		

2.6. In the case of tap water supply, what is the :

- a. frequency (how many times in a day?).....
- b. duration – how long?.....

2.7 What sanitation facilities are mainly available in the villages?

2.8. Do you have a public drainage system in the village houses?

3.0 Economic Status of Villagers

3.1. Occupations

Occupations of villagers	# Or %
a. Agriculture	
b. Wage labor	
c. Trade/shop keeping	
d. Unemployed	
e. Government service	
f. Others	

3.2 Average education level in the village:

- a. None/very little b. Primary school c. Middle school d. High school

3.3. Range of monthly income per average family (for villagers with regular jobs)

a.UptoNu.1000	b. Nu 1000-2000	Nu 2000-3000	Nu 3000-4000	Nu Over 4000
---------------	-----------------	--------------	--------------	--------------

3.4 Range of annual income for agricultural households:

a.UptoNu.5000	b. Nu 5000-10000	Nu 10000-15000	Nu 15000-20000	Nu Over 20000
---------------	------------------	----------------	----------------	---------------

3.5 Average size of land owned per family

a. Acres cultivated land _____

b. Acres non-cultivated land _____

3.6 Average land price: (per decimal)

a. Agriculture land (wetland): _____

b. Dry Land: _____

3.7 Average number of livestock per family

a. Cattle	
b. Goats	
c. Pigs	
d. Chicken	
e. Others	

3.8 What crops are mainly cultivated in the village for sale in the market

Crops	Rank
Rice	
Maize	
Wheat	
Millet	
Chilli	
Potato	
Others	

3.9 Where are these produce sold?

- a. Locally/in village _____
- b. Nearby market <15 km _____
- c. More distant market >15 km

3.10 How does the produce get to the market?

- a. Hand carry b. Tractor c. Power tiller d. Truck e. Horses f. Others

4.0 Transport

4.1 Which transport mode is commonly used to reach market and to district?

4.2 How do they get to this destination?

- a. Walk b. Tractor c. Power tiller d. Others

5.0 Income Source/Poverty Assessment**5.1 Main source of income:**

a.Subsistence agriculture	
b.Commercial agriculture	
c. Road maintenance	
d. Other employment.	
e Others	

5.2 What is the minimum land holding of HH?.....

5.3 How many HH have no land?.....

5.4 Do they fall within the proposed feeder alignment? Yes/No, please specify their name list

5.5 Is there any household having little land but sharecrop in order to sustain their livelihood?
Please specify the name list of the household with land holding.

5.6 Is there any farmers having power-tiller? List name along with their village name.

5.7 What are the primary reasons for owning power-tiller?

5.8 If Yes! How do they make their living?

5.9 Through what means?

5.10 Are there any programs that assist them for their living?

5.11 Are there any HH working as wage laborers for others? Specify their name list.

6.0 Any common property affected by the proposed feeder roads, such as;

6.1 Irrigation channel

6.2 Community Pasture Land

6.3 Source of Drinking Water

6.4 Sites for Health

6.5 School related Infrastructure

6.6 Religious Symbols

6.7 Cemeteries/burial sites

7.0 Other Comments (if any)