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ANNEX 1

Terms of Reference of the BMfaA Criteria and Indicators derived

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Terms of Reference: Evaluierung von Kleinkraftwerksprojekten der österreichischen EZA in Bhutan und Nepal

EZA-Projekte: 1360 + 908

1. Hintergrund:

- Wasserkraft ist eine der wichtigsten Ressourcen für die Entwicklung der ökologisch sensiblen Himalaya - Region, sowohl hinsichtlich einer umweltfreundlichen Energieversorgung als auch für den Export und die Verbesserung der Handelsbilanz. Ihr Ausbau hat deshalb hohe Priorität auf Seiten der Regierungen und der Gebergemeinschaft.
- Der Ausbau des erneuerbaren Energieträgers Wasserkraft bildet seit Jahren - mit vergleichsweise beträchtlichem Volumen - einen Schwerpunkt der österreichischen Entwicklungszusammenarbeit mit Nepal und Bhutan.
- Das österreichische Engagement in diesem Bereich orientiert sich programmatisch an den Grundanliegen der EZA wie Armutsbekämpfung und Ressourcenschutz. Es ist aber auch stark vom Transfer spezifisch österreichischen Knowhows und von österreichischen Wirtschaftsinteressen geprägt.
- Die österr. Interventionen hatten mit beträchtlichen ökologischen und technologischen Problemen (Erdrutsche, vorzeitige Abnutzung der Anlagen durch Sedimenteintrag etc.) zu kämpfen, die teure Umplanungen und Rehabilitation erforderlich machten.
- Die EZA-Politik im Sektor Energie ist durch eine starke Umorientierung von Baumaßnahmen hin zum Aufbau von personellen und institutionellen Kapazitäten für das Management der Anlagen (einschließlich Beratung, Ausbildung und Instandhaltung) gekennzeichnet.
- Trotz mehrjähriger Projektlaufzeiten und dem Einsatz umfangreicher EZA-Mittel (Rangjung ca. ATS 90 Mio, Namche Bazar ca ATS 85 Mio, jeweils inkl. Begleitmaßnahmen) wurde bislang noch keine Evaluierung der einzelnen Projekte durchgeführt. Eine Evaluierung von Namche Bazar wird auch vom Projektträger Öko Himal gewünscht und eine entsprechende Dokumentation vorbereitet.
- Die Abtlg. VII/6 hat eine Evaluierung in diesem Bereich bereits vor längerem ins Auge gefaßt und 1999/2000 neuerlich, mit der Sektion abgestimmt, ins Arbeitsprogramm aufgenommen.

2. Gegenstand und Zweck der Evaluierung:

→ Gegenstand der Evaluierung sind die Kleinkraftwerke Rangjung in Bhutan (2,2 MW), sowie Namche Bazar in Nepal (0,6 MW), die seit 1995/96 in Betrieb sind. Es geht insbesondere um die Beurteilung der österreichischen Leistungen und Begleitmaßnahmen hinsichtlich der Errichtung, der Inbetriebnahme, des Managements, sowie der Ergebnisse und Auswirkungen der Kraftwerksprojekte. Ein wichtiger Aspekt ist auch die sektorpolitische Ausrichtung und die Steuerung der Interventionen.

→ Die Evaluierung soll die Relevanz, die Zweckmäßigkeit und die Auswirkungen der beiden Kleinkraftwerke beurteilen. Es werden daraus Schlußfolgerungen für die Weiterentwicklung der Sektorpolitik Energie erwartet.

3. Umfang der Evaluierung :

- Die Evaluierung beschäftigt sich mit drei Bereichen:

- a) das Ausgangskonzept für die technischen Interventionen, sowie deren Implementierung und Auswirkungen; Was war beabsichtigt, was wurde realisiert und was hat es gebracht?
- b) Konzeption, Implementierung und Auswirkungen von begleitenden Maßnahmen während der Bauausführung, der Inbetriebnahme und der Betriebsführung einschließlich Erhaltungs- und Reparaturmaßnahmen unter besonderer Berücksichtigung der Nachhaltigkeit;
- c) die Entwicklung von Verfahren und Strukturen der Verwaltung, Koordination und Steuerung mit besonderer Berücksichtigung der politischen Einbettung im Sinne von Partizipation und *Ownership*;

4. Hauptfragen der Evaluierung:

- Inwiefern tragen Konzeption, Durchführung und Ergebnisse der Interventionen den **Grundanliegen der österr. EZA** bezüglich Armutsorientierung, Demokratieentwicklung, Ökologie und Geschlechtergleichstellung Rechnung?
- Wieweit orientieren sich die Interventionen an **Bedarf und Grundbedürfnissen der ländlichen Bevölkerung** und den **Prioritäten und Entwicklungsplänen** der Empfängerländer ? Welchen Einfluß haben die Maßnahmen umgekehrt auf die (Sektor-)Politikentwicklung im EL?
- Welche Verfahren der **Entscheidungsfindung**, bzw. der **Abstimmung und Koordination** wurden mit der Regierungseite und den anderen Gebern im Sektor entwickelt ? Wieweit wurde **die lokale Bevölkerung** und andere Beteiligte **eingebunden**? Welche Rolle spielen **nicht-staatliche Organisationsformen** und der Privatsektor?
- Wieweit sind Bauten, Anlagen und Verfahren **technologisch** den besonderen Bedingungen und Voraussetzungen (technisch, ökonomisch und ökologisch) **angepaßt und auf Nachhaltigkeit angelegt**? Welche Konsequenzen für die Wirtschaftlichkeit hatten die Umplanungen bzw. Rehabilitierungen ?
- Was ergibt die Analyse der **Effektivität und Effizienz** der Interventionen (Zielerreichung und Nutzungsgrad der eingesetzten Projektmittel)?
- Was sind die ökonomischen, sozialen und kulturellen **Auswirkungen** für die Bevölkerung der betreffenden Gebiete? Welche direkten und indirekten Effekte haben sich für die Wirtschafts- und Gewerbeentwicklung ergeben, was sind speziell die Einkommens- und Beschäftigungseffekte? Welchen Einfluß hatten die Interventionen auf die Ressourcen (Wasser, Boden, Weide, Wald), z.B. auf deren Nutzung und Zugänglichkeit, sowie auf Wohnverhältnisse, Gesundheitsstatus und Sozialstruktur der Bevölkerung ? Welche Auswirkungen ergeben sich für das Sozial- und Bildungswesen, ferner auf Mobilität bzw. Migrationsverhalten, auf Lebensstil und kulturelle Aktivitäten? Wie ist der Entwicklungsstand entsprechender Indikatoren und Verfahren des Impact Monitoring?
- Wieweit lassen sich die **Auswirkungen geschlechtsspezifisch** differenzieren (Indikatoren)? Inwiefern hat sich z.B. die Arbeitsbelastung von Frauen und Kindern verändert? Wieweit wurden in Konzeption und Durchführung **Genderspekte berücksichtigt** und genderspezifische Förderungsmaßnahmen entwickelt?

- Wie wurde den **sensiblen ökologischen Voraussetzungen** und Konsequenzen Rechnung getragen bzw. besondere Maßnahmen des Ressourcenschutzes getroffen? Was sind die direkten und indirekten Auswirkungen der Energieversorgung durch Strom aus Wasserkraft auf die Erhaltung der natürlichen Ressourcen (lokal, in den unmittelbar betroffenen Gebieten und am Unterlauf) und die Energiebilanz der Haushalte, insbesondere den Brennholzeinschlag?
- Welche Maßnahmen zur Erreichung der **Selbsttragefähigkeit und Nachhaltigkeit** der Interventionen wurden getroffen? Wieweit wurden entsprechende **institutionelle und personelle Kapazitäten** aufgebaut?
- Wie wirksam waren die **Steuerungsmaßnahmen** und das backstopping durch KoBü und Zentrale? Welche **Schlußfolgerungen und Empfehlungen** für die zukünftige Steuerung derartiger Interventionen ergeben sich daraus?
- Welche Rolle spielen die Interventionen für die **Entwicklung einer Sektorpolitik** (auf Seiten der ÖEZA)? Welche **Schlußfolgerungen und Empfehlungen** für die Entwicklung der Sektorpolitik ergeben sich daraus?.

5. Ansprechpartner der Evaluierung:

Folgende Gruppen bzw. *stakeholder* sind in die Untersuchung einzubeziehen:

- Bevölkerung bzw. Nutzniesser in den betreffenden Gebieten (sample)
- lokales Projektmanagement, Partnerorganisationen, ExpertInnen, relevante NRO's
- sektorrelevante lokale und zentrale staatliche Einrichtungen und Regierungsstellen
- österreichische Projektdurchführer und involvierte ExpertInnen
- wichtigste sektorrelevante Geber
- befaßte ÖEZA Stellen (KoBü, desk, Sektorreferent)

6. Evaluierungsteam

Das Team von internationalen und lokalen Fachleuten verfügt über **Kompetenz und Erfahrung** auf dem Gebiet der Evaluierung von EZA-Maßnahmen (Kenntnis der Arbeitsweise der ÖEZA von Vorteil), Wasserkraftwerksbau und Energieversorgung in EL, Ressourcenschutz in Gebirgsregionen, Gendersensibilität, Kapazitätsaufbau und Organisationsentwicklung; profunde **Kenntnis der lokalen Gegebenheiten** und Rahmenbedingungen der internat. Zusammenarbeit in Nepal und Bhutan.

Um **Unabhängigkeit** sicherzustellen darf kein wirtschaftlicher Bezug zu den involvierten Trägern und Strukturen gegeben sein;

Eine Agentur oder **Generalunternehmer** wird das Vorhaben **hauptverantwortlich** durchführen und entsprechende ExpertInnen verpflichten. Vorlage der CV's und Zustimmung durch BMAA sind erforderlich;

Im Zusammenhang mit der lokalen Umsetzung der Feldbefragungen sind die lokalen HelferInnen durch entsprechende Einschulung auf ihre Arbeit vorzubereiten. Nach Auswertung der Fragebögen ist in geeigneter Form an diese Gruppe ein Feedback ihrer Erhebungen zu geben.

7. Zeitraum / Arbeitsplan:

Die Evaluierung ist für die zweite Jahreshälfte 2000 in Aussicht genommen;

Vorgesehen sind folgende Phasen der Durchführung:

1. Phase: Information und Kommunikation mit allen Beteiligten

- Analyse der Projektdokumentation und Vorgaben ÖEZA;
Übersicht von relevanten Studien, Masterplänen und nat. Sektorpolitik;
Vorerhebung zu Nutzen und Auswirkungen / User survey durch lokale Kräfte,
2. Phase: Feldstudien des E-Teams in Nepal und Bhutan inkl. ExpertInnengespräche und Debriefing der Zwischenergebnisse vor Ort
 3. Phase: ExpertInnengespräche in Ö. und Auswertung
 4. Phase: Präsentation der Rohergebnisse in Ö.
Abfassung des Schlußberichts; Schlußabrechnung

Eine genauere Arbeitsplanung erfolgt mit dem Generalunternehmer.

8. Berichterstattung:

Format für die Berichtslegung im Anhang. Die Berichte werden in englischer Sprache erstellt (mit kurzer deutscher Zusammenfassung) und in Papierform plus EDV Diskette vorgelegt. Die Abnahme erfolgt durch BMAA VII/6 nach Stellungnahme durch KoBü und Länderdesk.

9. Budget:

- 1.) Position Honorare: Zahl der veranschlagten Arbeitstage (detailliert je Phase)
Int./Österr. ExpertInnen
Lokale ExpertInnen + Hilfskräfte für Erhebungen
- 2.) Position Transport / Reisekosten: internat. und lokal
Fahrtkosten und Diäten (detailliert gemäß österr. Reisegebührenverordnung RGV belegsmäßig abzurechnen)
- 3.) Position Administration:
Kommunikations- und Büroaufwand vor Ort (detailliert belegsmäßig abzurechnen)
- 4.) Position Reserve für Unvorhergesehenes: ca 5%
(Inanspruchnahme nur nach vorheriger Genehmigung durch BMAA VII/6)

10. Anhänge:

Projektkurzbeschreibung;
Format E-Bericht, Qualitätskriterien in der ÖEZA, Dokumente der ADB (Report SRE-Project) ergehen nach Zuschlag.

BMAA VII/6
Peter Kuthan
4.Juli 2000

No.	Fragestellung (gem. TOR)	No.	Criterion	No.	Indicator
Q1	<p>Inwiefern tragen Konzeption, Durchführung und Ergebnisse der Interventionen den Grundanliegen der österr. EZA bezüglich Armutsorientierung, Demokratieentwicklung, Ökologie und Geschlechtergleichstellung Rechnung?</p> <p>English: How far do conception, implementation and results reflect the chief objectives of Austrian development co-operation, in regard to poverty alleviation, democratisation/ ownership development, ecological concerns and gender equality?</p>	C1.1	Conception: Were objectives formulated regarding poverty alleviation, ownership development, ecology and gender equality?	I1.1	Number of objectives and expected results (% of total that were actually formulated)
				I1.1.1	Poverty alleviation
				I1.1.2	Ownership development
				I1.1.3	Ecology
		C1.2	Implementation: Respective budget allocations?	I1.2	Budget allocation as percentage of total budget
				I1.2.1	Poverty alleviation
				I1.2.2	Ownership development
				I1.2.3	Ecology
		C1.3	Results: What targets were achieved? Which measures were actually implemented?	I1.3	Number of achieved objectives and implemented measures (% of what was planned)
				I1.3.1	Poverty alleviation
				I1.3.2	Ownership development
				I1.3.3	Ecology
		Q2	<p>Wieweit orientieren sich die Interventionen an Bedarf und Grundbedürfnissen der ländlichen Bevölkerung und den Prioritäten und Entwicklungsplänen der Empfängerländer ? Welchen Einfluß haben die Maßnahmen umgekehrt auf die (Sektor-) Politikentwicklung im EL?</p> <p>English: How far were the interventions based on actual needs of the rural population and on priorities and development plans of the partner countries: What impact did measures have on sector policy development of the partner governments?</p>	C2.1	Is electricity among the top priorities of the rural population in the project area?
I2.1.2	Ranking of RE among basic needs (from questionnaire)				
I2.1.3	If electricity was no longer available, would they put it as their top priority to get it back or are other needs more pressing? (% distribution from answers in questionnaire).				
C2.2	Priorities in development plans; criterion is budget spending on rural electrification			I2.2.1	Ranking of RE in budget spending, compared to total development spending
C2.3	Sector policy development: Has rural off-grid electricity gained importance over public grid extension due to the Austrian intervention?			I2.3.1	Annual %-change in budget spending for RE over the last 10 years.
				I2.3.2	Current policy statements regarding RE. Is the public-private partnership model a valid RE approach?
Q3	Welche Verfahren der Entscheidungsfindung , bzw. der Abstimmung und Koordination wurden mit der Regierungseite und den anderen			C3.1	MOA's + MOU's (memorandi of understanding and agreement), letters of intent, etc.

	<p>Gebern im Sektor entwickelt ? Wieweit wurde die lokale Bevölkerung und andere Beteiligte eingebunden? Welche Rolle spielen nicht-staatliche Organisationsformen und der Privatsektor?</p> <p>English: What decision making processes and co-ordination mechanisms were developed with the partner government and other donors? What was the degree of local participation and of other stakeholders? What role did NGO's and the private sector play?</p>	C3.2	Decision making process and donor co-ordination: Organisation charts for various project stages based on official documents and interviews.	I3.2.1	Have the Government and other donors been given a position in the chart to formally participate in the decision making processes? (interview with Govt. reps.)
				I3.2.2	How are village representatives positioned in the org. charts for the various project stages; is a participation in the decision making process possible? (interview)
				I3.2.3	What about other groupings such as NGOs and the private sector? (interviews)
		C3.3	Degree of participation for NGOs and the private sector?	I3.3.1	When are NGOs first mentioned in project documents and in what role?
				I3.3.2	When are private sector institutions first mentioned in project documents and in what role?
Q4	<p>Wieweit sind Bauten, Anlagen und Verfahren technologisch den besonderen Bedingungen und Voraussetzungen (technisch, ökonomisch und ökologisch) angepaßt und auf Nachhaltigkeit angelegt? Welche Konsequenzen für die Wirtschaftlichkeit hatten die Umplanungen bzw. Rehabilitierungen ?</p> <p>English: Are processes, structures, plants and equipment technologically adapted to the frame conditions (technically, economically and ecologically) and designed in a sustainable way? What economic impact did re-designs and rehabilitation measures have?</p>	C4.1	To what degree can the MHP plants satisfy the energy needs of the population?	I4.1.1	%-coverage of the energy needs of the four most typical consumer groups (household, lodge, shop, office) => survey & questionnaire
		C4.2	How adequate a technology are the MHP plants?	I4.2.1	Efficiency of energy conversion from water to consumer (technical and non-technical losses)
				I4.2.2	Convenience: Can the available appliances be connected at any time of the day or are peak times, fuse capacities or other constraints to be observed by consumers?
				I4.2.3	Safety: How many accidents have been reported since commissioning?
		C4.3	How reliable is electricity supply?	I4.3	%-downtimes of plant as shown in operators' logbook
		C4.4	Efficiency of O&M ?	I4.4.1	How long does it take to restore supply after a failure
				I4.4.2	Total cost of O&M (US\$/household)
				I4.4.3	Trend of O&M costs (increasing or decreasing)
		C4.5	Is the expected service life of the MHP plant realistic?	I4.5.1	% of failures of the plant which have far reaching consequences (service life shortening)
				I4.5.2	% of components which will not reach their expected service lives.
I4.5.3	% of components for which spare parts are in stock or can be ordered without difficulty (specs. and suppliers available to management without the need to consult donor agency / consultants)				
C4.6	How economic a means are the MHP plants to supply electricity?	I4.6	Monthly cost per household for the typical service levels (as they pay now)		

		C4.7	How economic would the plants be without rehabilitation and redesign?	I4.7	Monthly cost per household for the typical service levels computed using the current costs of O&M.
		C4.8	Efficiency of the organisational set-up.	I4.8.1	Number of employees per kWh sold
				I4.8.2	Number of employee levels to be alerted for decision making after a failure
		C4.9	Are the plants economically sustainable?	I4.9	% coverage of present revenue as compared to average revenue required to independently operate and maintain the plant.
		C 4.10	Has a residual flow been allowed for in the design and in the operational practice?	I4.10	% of time when bypassed river section is dry / has insufficient water depth during a) the whole year and b) a typical day during the dry season (storage / peaking capabilities of the plant)
		C 4.11	Are large flow fluctuations being created in the river due to the operation of the plant?	I4.11	Ratio of low to peak flows within a 24-hour period
		C 4.12	Has the longitudinal connectivity of the river ecology been interrupted or reduced following plant construction and operation?	I4.12	% of fauna which is unable to migrate up-stream due to the plant (approximate value)
		C 4.13	Has reservoir and sand trap flushing a negative impact on the river ecology?	I4.13	Dilution ratio of flushing flows immediately after the flushing gate
Q5	Was ergibt die Analyse der Effektivität und Effizienz der Interventionen (Zielerreichung und Nutzungsgrad der eingesetzten Projektmittel)? English: What is the result of the analysis as far as effectiveness of interventions and efficiency of allocated funds are concerned?	C5.1	Effectiveness: To what degree have the project objectives been reached? Review after document study	I5.1.1	% of population electrified in project area
				I5.1.2	full cost covering rate (compare with alternatives)
				I5.1.3	% of electricity of total energy use per user
				I5.1.4	qualitative: value of electricity versus alternatives
		C5.2	Efficiency: Cost per kW installed, production cost, budget overrun Review after document study	I5.2.1	Total cost per kW installed capacity
				I5.2.2	Total production cost per kWh
				I5.2.3	Percentage of budget overruns
Q6	Was sind die ökonomischen, sozialen und kulturellen Auswirkungen für die Bevölkerung	C6.1	Impact on family economics: Is the electricity supply from the	I6.1.1	Change of expenses for equivalent energy services from before and after the hydro (survey and questionnaire)

<p>der betreffenden Gebiete? Welche direkten und indirekten Effekte haben sich für die Wirtschafts- und Gewerbeentwicklung ergeben, was sind speziell die Einkommens- und Beschäftigungseffekte? Welchen Einfluß hatten die Interventionen auf die Ressourcen (Wasser, Boden, Weide, Wald), z.B. auf deren Nutzung und Zugänglichkeit, sowie auf Wohnverhältnisse, Gesundheitsstatus und Sozialstruktur der Bevölkerung ? Welche Auswirkungen ergeben sich für das Sozial- und Bildungswesen, ferner auf Mobilität bzw. Migrationsverhalten, auf Lebensstil und kulturelle Aktivitäten? Wie ist der Entwicklungsstand entsprechender Indikatoren und Verfahren des Impact Monitoring?</p> <p>English: What are the economic, social and cultural impacts for the population of the project area? Which direct effects have occurred in terms of economic and industrial development; in particular what are the income and employment effects?</p> <p>What impacts on the resources (water, land, pasture and forest) have resulted from the interventions e.g., on their exploitation and access and on the housing situation, health conditions and the social structure of the population? What impacts have resulted on welfare and education, mobility and migration, lifestyle and cultural activities. What is the current status of corresponding indicators and processes of the impact monitoring?</p>		hydro a drain on the financial resources of the population or has it resulted in a reduction of the household energy budgets?	I6.1.2	Difference in % between the energy budget of electrified HH in the project area and non-electrified HH
	C6.2	Impact on economic growth I: Is electricity a catalyst for economic development?	I6.2	Number of additional (micro) businesses using electricity or which have been created to serve an electricity user (e.g., food or fuel wood supply to a tourist lodge which thrives due to electricity supply)
	C6.3	Impact on economic growth II: Was the lack of (adequate) electricity supply inhibiting economic growth?	I6.3.1	% of businesses which would not be able to operate without a continuous electricity supply (from business survey)
			I6.3.2	% of businesses which started operation after the RE project (from business survey / questionnaire)
	C6.4	Impact on incomes: Are there new HH incomes due to the project such as employment with the plant operator?	I6.4	New sources of income: numbers and type (from HH survey)
	C6.5	Impact on poverty I: Is the project only benefiting the better-off while the poor are left out?	I6.5	% of HH not connected to the scheme due to lack of financial resources (questionnaire for non-connected HH)
	C6.6	Impact on poverty II: Has the RE scheme a poverty alleviation effect? Or are there still unskilled jobs available or newly created in electricity using businesses?	I6.6	% difference of ratio of skilled / unskilled labour force between the new businesses in the project area and non-electrified areas (survey of occupational patterns)
	C6.7	Impact on productivity: Has productivity increased since electrification?	I6.7	% of businesses using electric machinery (from business survey)
	C6.8	Impact on employment: Have productivity gains from RE outweighed the new employment opportunities with RE?	I6.8	Ratio of new employment to jobs lost due to mechanisation (from occupational patterns and survey of mechanisation)

	C6.9	Impact on quality of life I: Has RE increased safety of the population (through improved lighting)?	I6.9.1	% of people who fear less theft, crime, wild animals due to electric outdoor lights (questionnaire)
	C 6.10	Impact on quality of life II: Has RE reduced the drudgery of daily housework (e.g., convenience of preparing food at night due to better lighting or thanks to the aid of electrical appliances for water boiling, food preparation or preservation)	I6.10.1	% of people who state a decrease of the household burden
	C 6.11	Impact on quality of life III: Has RE improved educational and recreational opportunities (due to better lighting?)	I6.11.1	% Increase in number of cultural/social gatherings
I6.11.2			% increase of entertainment and recreational opportunities due to electricity supply from the MHP plant (from questionnaire)	
I6.11.3			Ratio of education-related evening activities to all new evening activities	
	C 6.12	Impact on quality of life IV: Has RE improved the access to information (through radio, TV, better opportunities for reading, chatting due to improved lighting)	I6.12	Perceived increase in access to information and knowledge due to electricity supply (% of sample population which see a distinct increase)
	C 6.13	Impact on health: Has the health of the population improved due to the availability of electricity?	I6.13.1	% of HH who have switched from <u>open</u> fires to electric cookers
I6.13.2			% change of incidents of respiratory diseases from before to after the project (statistics of health post)	
I6.13.3			Number of essential electrical appliances in the health posts	
	C 6.14	Impact on education: Has the educational service improved due to the availability of electricity?	I6.14.1	Number of essential electrical appliances in the schools
I6.14.2			% of respondents who feel that the quality of teachers posted to the school has improved since the availability of electricity in the area.	
	C 6.15	Impact on mobility and migration: Can RE reduce migration to the cities and towns?	I6.15.1	% of respondents who state that they go about more frequently at night to see friends, etc. than before the electricity supply from the hydro?
I6.15.2			% of respondents who would out-migrate if electricity was no longer available?	

CRITERIA and INDICATORS

				I6.15.3	% annual population growth rate for the area (from statistics). Compare with country-wide figure.
		C 6.16	Impact on social structure: Has the involvement in the project changed the decision-making processes of the people in the area?	I6.16.1	% of respondents who feel that conflicts and decisions on (i) who should receive electricity, (ii) whether the poor should be subsidised, (iii) whether the people who lost land, trees, etc. should be compensated, have been treated in the traditional way or have been changed to better or worse.
				I6.16.2	% of respondents who feel that access to resources (land, water, forest) has changed (new rules?) since project implementation.
		C 6.17	Impact on cultural values: Has the project or the availability of electricity changed cultural values?	I6.17.1	% of respondents who feel that exposure to other cultures through expatriate project staff and TV, radio broadcasts available with electricity have eroded traditional cultural values
		C 6.18	Has RE improved the overall outlook on development in the project area?	I6.18.1	% of respondents who would stay in the project area if they had a lot of money to invest
				I6.18.2	Number of public development projects in the area that require an electricity supply
		C 6.19	Impact on deforestation: Can the MHP plant curb deforestation?	I6.19.1	Ratio of total wood fuel use to the estimated sustainable harvesting potential of the project area (before project / today)
				I6.19.2	% of households who switched from stoves to electric cookers for at least parts of their heat requirements
Q7	Wieweit lassen sich die Auswirkungen geschlechtsspezifisch differenzieren (Indikatoren)? Inwiefern hat sich z.B. die Arbeitsbelastung von Frauen und Kindern verändert? Wieweit wurden in Konzeption und Durchführung Genderspekte berücksichtigt und genderspezifische Förderungsmaßnahmen entwickelt? English: How do the impacts compare in terms of gender balance? How has the work load of women and children changed? In what way have gender aspects been considered in design and implementation of the projects? What gender specific support mechanisms have been	C7.1	Has RE contributed to relieving women and children from household chores?	I7.1	% of female respondents who see a decrease in daily working hours or a reduced work load due to the electricity supply.
		C7.2	Have women been able to participate in the MHP / SHP admin. and institutions?	I7.2.1	% of women participants in MHP / SHP committees and ward-level committees (compare with women participation in non-power sector institutions)
				I7.2.2	% of women in key positions in the project set-up and the plant management
				I7.2.3	% of respondents who declare that the women decided on their house connection and the service (wattage) level
		C7.3	Has RE provided about equal benefits to women and men?	I7.3.1	% of stated benefits that have been realised for a) men and b) for women.
		C7.4	Have specific strategies and	I7.4.1	% of planned activities with a specific gender aspect

	gender specific support mechanisms have been developed?		measures to improve gender-balanced development been deployed by the project?	17.4.2	% of implemented activities with a gender specific aspect
				17.4.3	% of activities which have resulted in tangible improvements for women
Q8	<p>Wie wurde den sensiblen ökologischen Voraussetzungen und Konsequenzen Rechnung getragen bzw. besondere Maßnahmen des Ressourcenschutzes getroffen? Was sind die direkten und indirekten Auswirkungen der Energieversorgung durch Strom aus Wasserkraft auf die Erhaltung der natürlichen Ressourcen (lokal, in den unmittelbar betroffenen Gebieten und am Unterlauf) und die Energiebilanz der Haushalte, insbesondere den Brennholzeinschlag?</p> <p>English: How were the sensitive ecological conditions and consequences taken into account and what measures for resource protection have been taken? What are the direct and indirect impacts of the energy supply through hydropower on the conservation of the natural resources (in the project area and downstream) and in the energy balance of the households, esp. fuel wood harvesting?</p>	C8.1	Have specific strategies and measures to protect the resources been deployed by the project?	18.1.1	% of planned activities with a specific resource protection aspect
				18.1.2	% of implemented activities with a specific resource protection aspect
				18.1.3	% of activities which have resulted in tangible improvements for women
		C8.2	Environmental impact I: Has the power plant created a loss of aquatic life in the river system?	18.2	% of indicators which suggest an impact on the aquatic life in hydrologic, geo-morphological and water quality aspects as compared to a neighbouring catchment without hydropower plant.
		C8.3	Environmental impact II: Has the power plant created additional erosion problems?	18.3	Number of severe landslides and erosion gullies which cannot and have not been repaired with conventional means
		C8.4	Environmental impact III: Has the new access road to the power plant and along power lines created new land use patterns?	18.4	% of total area which has been occupied by new users since opening up the access road
C8.5	Environmental impact IV: Has the energy mix on household level changed through the introduction of the electricity supply?	18.5.1	% change of contribution by electricity		
Q9	<p>Welche Maßnahmen zur Erreichung der Selbsttragefähigkeit und Nachhaltigkeit der Interventionen wurden getroffen? Wieweit wurden entsprechende institutionelle und personelle Kapazitäten aufgebaut?</p> <p>English: Which measures to achieve viability and sustainability of interventions have been taken? How far have relevant institutions and capacities been developed?</p>	C9.1	Sustainability measures I: Have measures been taken to keep trained personnel (the "institutional memory") in the project?	19.1.1	Number of measures identified which contribute to preserving the institutional memory
				19.1.2	Personnel turnover (no/a) at the operating agency.
				19.1.3	No. of years of service of the top 3 cadres of the operating agency
		C9.2	Sustainability measures II: Have measures to set tariffs at the level sufficient to keep the plant running indefinitely been taken?	19.2.1	Number of measures identified which contribute to setting cost-covering tariffs for sustainable O&M.
				19.2.2	Financial performance of the operating agency
		C9.3	Sustainability measures III: What has been done to assure long service life of components?	19.3.1	Specific considerations and measures taken to improve the service life of components

		C9.4	Institution building	I9.4.1	Number of board and general assembly meetings per year on average
				I9.4.2	% of total activities aiming at capacity building and training of key personnel
Q10	<p>Wie wirksam waren die Steuerungsmaßnahmen und das backstopping durch KoBü und Zentrale? Welche Schlußfolgerungen und Empfehlungen für die zukünftige Steuerung derartiger Interventionen ergeben sich daraus?</p> <p>English: How effective have been the steering measures and the backstopping of the HQ and the co-ordinating offices? Which conclusions can be drawn from this for the steering of similar interventions in future?</p>	C 10.1	Impact of Kobü interventions: Have the interventions by KoBü and HQ revealed to be the right decisions?	I10.1.1	% of most important decisions which have been influenced by the KoBü and the HQ
				I10.1.2	% of successful interventions as seen from hindsight
		C 10.2	Impact of directives from the A ministry	I10.2.1	
Q11	<p>Welche Rolle spielen die Interventionen für die Entwicklung einer Sektorpolitik (auf Seiten der ÖEZA)? Welche Schlußfolgerungen und Empfehlungen für die Entwicklung der Sektorpolitik ergeben sich daraus?</p> <p>English: What role do such interventions play in the development of a sector policy (of the Austrian development co-operation)? Which conclusions and recommendations can be drawn?</p>	C 11.1	What is the impact of the projects on the Austrian development aid policy	I11.1.1	

ANNEX 3

Persons contacted and people met, visited

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Date	People met/contacted	Remarks
Oesterreich		
12.09.00 21.09.00	Mag. Anton Mair, ÖEZA	Leiter der Abteilung VII.6: Einführung, Auftragsbesprechung
12.09.00 21.09.00	DI Peter Kuthan, ÖEZA	Betreuer der Evaluierung: Einführung, Auftragsbesprechung
12.09.00 21.09.00	Mag. Michaela Ellmeier, ÖEZA	"Desk", Abteilung VII.5: Zugang zu Akten und Detailinformation
21.09.00	Rudolph J. P.Huepfl	Energy Advisor, Informant betr. Frühphase: informelle Befragung
21.09.00	DI Hans-Georg Danninger, ÖEZA	Ehem. Projektverantwortlicher, Schlüsselinformant: informelle Befragung
21.09.00	DI Günther Stachel, ÖEZA	Ehem. Leiter der Projektteilung, Schlüsselinformant: informelle Befragung, Diskussion der Evaluierungszielsetzung
10 Oct. 2000	Messrs. Aichinger and Giner, Project Managers Rangjung SHP; Bernard & Partner, Consulting Engineers, Austria	Ausführender Ingenieurkonsulent, Befragung zu Ausführungs- und Verfahrensfragen
12 Oct. 2000	Konsulent Herr Posch, Posch + Partners, Innsbruck	Bis 1993 Ingenieurkonsulent für das Namche Projekt (telefonisch)
15 Feb. 2001	DI Dieter Rachbauer, DI Johannes Gemacher, Ökohimal, Salzburg	NGO, Regieträger für das Namche SHP ab 1993, (tel., e-mail) Befragung zu konzeptionellen Fragen
6 March 2001	Herr G. geppert, Geppert und Co. Hall im Tirol	Lieferant der elektromechanischen Ausrüstung für Namche SHP, (telefonisch)
7 March 2001	DI Bernhard Jud, ex Fiegl und Spielberger, Innsbruck	Verantwortlicher der Ausführung der elektrischen Anlagen Namche SHP, (telefonisch, e-mail)
16 March 2001	Frau Dr. Inmann, ex Ökohimal	Projektverantwortliche 1993-1998, (e-mail)
NEPAL		
Date	People met/contacted	Remarks
25.09.00, 27.09.00	Hr. Girish Kharel, Ing.	Lokales Evaluationsteammitglied, Teamleiter: Aufgabenbesprechung, Beauftragung
25.09.00	Dr. Gunther Traut, GTZ-SHPP Hr. Sridhar Devkota	GTZ Small Hydro Promotion Programme: Informationsaustausch
26.09.00	Prof. Kurt Luger, besuchsweise im Kathmandu-Büro von Ecohimal	Chairman Oekohimal: Kontaktaufnahme und Informationsbeschaffung, Diskussion der Evaluierungsziele
26.09.00	Mingma Norbu Sherpa, Ecohimal	Manager Thame Valley Development Project von Ecohimal: Projekt- und Gebietsinformation, Absprache der Feldbesuche
26.09.00	Ang Danu Sherpa, KBC	Manager KBC: Information über Evaluierungsabsicht, Absprache der Feldbesuche
26.09.00	Hr. Peter Rhode	Koordinator GTZ, Kathmandu: Informationsaustausch
27.09.00	Frau Prakritit K.C.	Soziologin, Evaluationsteammitglied: Aufgabenbesprechung, Beauftragung
27.09.00	Hr. Purusottham Shrestha	Umweltwissenschaftler, Evaluationsteammitglied: Aufgabenbesprechung, Beauftragung
16.-19.11.2000	Mr. Ang Danu Sherpa, Administrative Manager KBC	Key informant interviews, visits
17.-18.11.2000	Mr. Ang chhiring Sherpa, Technical Manager KBC	Key informant interviews, visits
18 Nov. 2000	All other KBC staff	Discussions, informal interviews
16 Nov. 2000	Laundry operator, Namche Bazaar	Experiences with electricity

Date	People met/contacted	Remarks
	Email shop/bookstore operator, Namche Bazaar	Experiences with electricity
17 Nov. 2000	Water Bottling Plant	Experiences with electricity
	Mrs Hakpa Doma, President, Ama Samuha (Women's Group)	Impacts on workload and lifestyle of women
	Owner/operator, cinema	Experiences with electricity
	Manager, electrified bakery, pizza shop, laundry and sauna	Experiences with electricity
18 Nov.2000	Mr Mahendra Kathet, Headmaster, Khumjung School	Changes in pedagogic possibilities, educational curriculum and achievement, staff recruitment and retention
	Mrs Tshering Doma Sherpa, Chairperson, Khumjung VDC	Socio-economic data, changes in conditions especially for women
	Senior citizens, Thamo village	Impacts on the elderly
	Women's Group members, Thame and Thamo	Impacts on women
	Mr Mingma Norbu Sherpa, Eco-Himal	Environmental impacts of electrification
19 Nov. 2000	Sirdar Passang Ritha Sherpa, Representative, Thame Users' Group	Community involvement, consultation and feedback, experiences with company management
	Manager, Everest View Hotel	Experiences of luxury lodge management since electrification
	Administration Officer, Khumjung Hospital	Impacts of electrification on delivery of health services and health outcomes
	2 connected households	Experiences with electricity; use of appliances, impacts on household budget
	Mr Mahendra Kathet, Headmaster, Khumjung School	School visit
	Mrs Tshering Doma Sherpa, Chairperson, Khumjung VDC	Statistics collection
20 Nov. 2000	Chairman, Monastery Society	Impacts of electrification on religious and spiritual life
	In Charge, Sagarmatha National Park Headquarters	Statistics, impacts of electrification
	In Charge, Police chauki	Impacts of electrification on offending and public order
	Mr Chhime Kaldhen Sherpa, President, Sagarmatha Club	Impacts of electrification on youth and cultural activities
	Manager, Namche Bazaar Lodge	Experiences with electricity in a superior quality lodge
	Manager, Herman's Bakery	Experiences with electricity vs gas baking
	Non-electrified householder	Effects of non-electrification
	Mingma Norbu Sherpa (Monju), Executive Director, Sagarmatha Pollution Control Committee	Statistical data on development, impacts on environment
	Bharat Pokharel, Project Field Officer, WWF	Impacts on aquatic or other biota
BHUTAN		
Date	People met/contacted	Remarks
28.09.00 29.09.00	R.N. Adhikari, Ing.	Ing., Resourceperson: Aufgabendiskussion, Logisitk im Zusammenhang mit Feldbesuchen, Kontaktvermittlung
	Hr. Hemlal S. Dahal, Ing.	Evaluierungsteammitglied: Aufgabenbesprechung, Diskussion Vorgehensweise, Beauftragung
	Hr. Pema Norbu, Ing.	Teamleiter: nicht erreichbar aufgrund Krankheitsfall in Familie. Stattdessen intensiver Kontakt über e-mail.

Date	People met/contacted	Remarks
28.09.00	Dr. Brigitte Dekrout, ACB Thimphu	Koordinatorin ACB: Kontaktaufnahme, Informationsaustausch, Diskussion der Datenerhebung vor Ort und der Ziele der Evaluierung
28.09.00	Hr.. Thinley Dorjee, DoP	Incharge Trashigang Electricity Supply Unit: Information über Evaluierungsvorhaben, Absprache der Feldbesuche, Diskussion der Vorgehensweise Datenerhebung vor Ort
28.09.00	Hr. Tempa Gurme, DoP	Project Incharge DoP: Information über Evaluierungsvorhaben und deren Zielsetzung, Absprache weiterer Besuchstermine und Zugang zu Information
24 Nov. 2000	Dr. Dekrout, Co-ordinator ACB	Briefing about field mission
25 Nov. 2000	Mr. Brian Leyland (Sinclair Knight Merz (NZ), consultant to the ADB for the DOP corporatisation project	Information exchange
26 Nov. 2000 27 Nov. 2000 28 Nov. 2000	Operators of the Chhumei mini hydel plant, Bumthang	Information on current generation and supply situation in Bumthang
	Mr. Chewang Rinzin, Kuri Chhu.	Key informant interview. Mr. Chewang Rinzin used to be the project manager for the Rangjung SHP in Thimphu. He is now the Manager of the Indo-Bhutanese bilateral Commission responsible for the Construction of the Kuri Chhu hydropower plant.
	Thinley Dorji, Executive Engineer, ESU Trashigang	Key informant interview
	Mr. T.S. Poudyal, Vice Principal, Sherubtse College, Kanglung	
	Roundtable discussion with sector heads of Trashigang District: Mr. Sonam Tshering, District Education Officer Mr. I.M. Rai, Range Officer Mr. D.S. Tamang, District Engineer (Irrigation) Mr. Tempa, District Finance Officer Mr. Tshering Dorji, District Health Officer Dasho Dawa, District Administration Officer Mr. Sonam Tshewang, Agricultural Officer Mr. Tashi Tobgay, Bhutan Development Finance Corporation BDFC	Impact evaluation
29 Nov. 2000	Mr. Giner, Project Manager Bernard&Partner, Rangjung SHP, Construction of Desanding facility	Progress on construction work, technical evaluation of the whole scheme
	Mr. Singye Dorji, Incharge of Rangjung Power Station (trained in Austria for 4 years)	Evaluation of operation and maintenance
	Mr. Tenzin Dorji, Principal Rangjung High School Mr. Kinley, Secretary, Rangjung Monastery Staff of Radhi Basic Health Unit Khenpo (Abbot), Khardung Nunnery Staff of Phongmey Primary School 1 household survey	Evaluation of education impacts Evaluation of changes in spiritual and cultural life, effects on youth, effects on security and sociality Changes in educational attainment and awareness

Date	People met/contacted	Remarks
30 Nov. 2000	Roundtable discussion with sector heads of Trashiyangtse District: Mr. Jamba Tseten, District Administration Officer Mr. S.D. Thapa, Planning Officer Mr. Tsewang Phuntsho, District Health Officer Mr. Rinchen, District Education Officer Mr. Karma, District Forest Extension Officer Lam Kezang Chopel, Principal, Rigney Institute Mr. Tshering Phuntsho, District Engineer	Impact evaluation
	3 household surveys in Yangtse Gewog 1 household survey in Khamdang Gewog	To get a feel for the actual situation at household level and to spot-check student and local expert HS surveys
	Dr. K.N. Sharma, District Medical Officer, Trashy Yangtse General Hospital	Impacts of electrification on delivery, use and outcomes of services in the health sector
1 Dec. 2000	Mr. Karma Dukpa, Project Facilitation Officer, Khangma	Information on the Renewable Natural Resources Sector (RNR) and related projects (SEZAP – Second Eastern Zone Agricultural Programme supported by IFAD; TFDP – Third Forestry Development Programme supported by the World Bank and the Swiss Development Co-operation)
	Operators of the Khaling Mini Hydropower plant, Khaling	Information on current generation and supply situation, interconnection with Rangjung SHP
	Principal, Khaling Weaving Centre	Evaluation of impacts on women's income generation activities
	2 household surveys and one restaurant survey in Khaling Gewog	To get a feel for the actual situation at household level and to cross-check student and local expert HS surveys; to assess impacts on small commercial enterprises
3 Dec. 2000	Mr. S. K. Jain, tunnel construction manager, Yarkay Construction Company, Baso Chhu Hydel site	Information exchange
4 Dec. 2000	Mr. Mewang Gyaltzen, RE Unit, DOP Thimphu	Information on rural electrification projects in the Rangjung SHP supply area
	Ms Monira A.Y. Tsewang Under Secretary, Planning Commission Secretariat	To obtain any available baseline information, definition and identification of poverty
	Mr Tenzin Dorji, UNDP	To check for information on sustainable fuelwood harvesting, baseline studies of aquatic life
	Mr. Karma Wangchuk, Project Implementation Unit, DOP Thimphu	Information on rural electrification projects in the Rangjung SHP supply area
	Mr. Sonam Tshering, Director DOP, Thimphu	Key informant interview
	Dr. Dekrout, Coordinator ACB, Thimphu	Debriefing
5 Dec.	Mr. Nim Dorji, Director of the Sustainable Development Secretariat, Ministry of Finance	Information exchange on Dutch evaluation of Sustainable Development Programme (which includes RE funding in the Rangjung SHP supply area)

ANNEX 4

Economic Analysis Rangjung SHP

SHP "Rangjung", Bhutan, after repairs

Cash-Flow Analysis

Plant data						
Plant capacity		2200 kW		Sales tariff	1.50 Nu/kWh	8 UScents/kWh
annual energy		17'000'000 kWh		Foreign Inflation	2.4%	
Investment				exchange rate 2000	46 Nu/US\$	
1992	US\$	624'000		discount rate	8%	
1993	US\$	2'452'304				
1994	US\$	3'222'823				
1995	US\$					
Inv. Total	US\$	6'299'127				
O&M costs						
	US\$/a	174'300	in 2000			

6'299'127

nominal EIRR

8.0%

Year		Annual energy sold (kWh)	tariff UScents/kWh	Revenue (US\$)	Investment	O&M costs	Net Cash-Flow	Discounting factor	discounted cashflow
-3	1992	-		0	-624'000	-	-624'000	1.26	-786'060
-2	1993	-		0	-2'452'304	-	-2'452'304	1.17	-2'860'367
-1	1994	-		0	-3'222'823	-	-3'222'823	1.08	-3'480'649
0	1995	-		0			0	1.00	0
1	1996	1'910'044	1.425	27'209	-518'000	-71'200	-561'991	0.93	-520'362
2	1997	2'181'044	1.498	32'677		-107'800	-75'123	0.86	-64'406
3	1998	2'780'556	1.340	37'250		-139'400	-102'150	0.79	-81'090
4	1999	3'828'128	1.284	49'141	-191'150	-133'600	-275'609	0.74	-202'581
5	2000	4'000'000	1.353	54'131	-469'600	-174'300	-589'769	0.68	-401'387
6	2001	4'400'000	1.353	59'544		-178'483	-118'939	0.63	-74'952
7	2002	17'000'000	8.000	1'360'000		-182'767	1'177'233	0.58	686'904
8	2003	17'000'000	8.192	1'392'640		-187'153	1'205'487	0.54	651'287
9	2004	17'000'000	8.389	1'426'063		-191'645	1'234'418	0.50	617'517
10	2005	17'000'000	8.590	1'460'289		-196'244	1'264'045	0.46	585'497
11	2006	17'000'000	8.796	1'495'336		-200'954	1'294'382	0.43	555'138
12	2007	17'000'000	9.007	1'531'224		-205'777	1'325'447	0.40	526'353
13	2008	17'000'000	9.223	1'567'973		-210'716	1'357'257	0.37	499'061
14	2009	17'000'000	9.445	1'605'605		-215'773	1'389'832	0.34	473'184
15	2010	17'000'000	9.671	1'644'139		-220'951	1'423'188	0.32	448'648
16	2011	17'000'000	9.904	1'683'598		-226'254	1'457'344	0.29	425'385
17	2012	17'000'000	10.141	1'724'005		-231'684	1'492'320	0.27	403'328
18	2013	17'000'000	10.385	1'765'381		-237'245	1'528'136	0.25	382'415
19	2014	17'000'000	10.634	1'807'750		-242'939	1'564'811	0.23	362'586
20	2015	17'000'000	10.889	1'851'136		-248'769	1'602'367	0.21	343'785
21	2016	17'000'000	11.150	1'895'563		-254'740	1'640'824	0.20	325'959
22	2017	17'000'000	11.418	1'941'057		-260'853	1'680'203	0.18	309'057
23	2018	17'000'000	11.692	1'987'642		-267'114	1'720'528	0.17	293'032
24	2019	17'000'000	11.973	2'035'346		-273'525	1'761'821	0.16	277'838
25	2020	17'000'000	12.260	2'084'194		-280'089	1'804'105	0.15	263'432
									-41'449

SHP "Rangjung", Bhutan

Cash-Flow Analysis

Plant data					
Plant capacity		2200 kW			
annual energy		17'000'000 kWh	Sales tariff India	1.50 Nu/kWh	7.2 UScents/kWh
Investment			Foreign Inflation	2.4%	
1992	US\$	624'000	exchange rate 2000	46 Nu/US\$	
1993	US\$	2'452'304	discount rate	8%	
1994	US\$	3'222'823			
1995	US\$				
Inv. Total	US\$	6'299'127			
O&M costs	US\$/a	174'300 in 2000			

6'299'127

nominal EIRR

7.9%

Year	Annual energy sold		Revenue (US\$)	Investment	O&M costs	Net Cash-Flow	Discounting	
	(kWh)	tariff UScents/kWh					factor	discounted cashflow
-3	1992	-	0	-624'000	-	-624'000	1.26	-786'060
-2	1993	-	0	-2'452'304	-	-2'452'304	1.17	-2'860'367
-1	1994	-	0	-3'222'823		-3'222'823	1.08	-3'480'649
0	1995	-	0			0	1.00	0
1	1996	1'910'044	1.425	27'209	-71'200	-43'991	0.93	-40'733
2	1997	2'181'044	1.498	32'677	-107'800	-75'123	0.86	-64'406
3	1998	2'780'556	1.340	37'250	-139'400	-102'150	0.79	-81'090
4	1999	3'828'128	1.284	49'141	-133'600	-84'459	0.74	-62'080
5	2000	4'000'000	1.353	54'131	-174'300	-120'169	0.68	-81'785
6	2001	4'400'000	1.353	59'544	-178'483	-118'939	0.63	-74'952
7	2002	17'000'000	7.200	1'224'000	-182'767	1'041'233	0.58	607'550
8	2003	17'000'000	7.373	1'253'376	-187'153	1'066'223	0.54	576'047
9	2004	17'000'000	7.550	1'283'457	-191'645	1'091'812	0.50	546'178
10	2005	17'000'000	7.731	1'314'260	-196'244	1'118'016	0.46	517'858
11	2006	17'000'000	7.916	1'345'802	-200'954	1'144'848	0.43	491'006
12	2007	17'000'000	8.106	1'378'101	-205'777	1'172'324	0.40	465'546
13	2008	17'000'000	8.301	1'411'176	-210'716	1'200'460	0.37	441'407
14	2009	17'000'000	8.500	1'445'044	-215'773	1'229'271	0.34	418'519
15	2010	17'000'000	8.704	1'479'725	-220'951	1'258'774	0.32	396'818
16	2011	17'000'000	8.913	1'515'239	-226'254	1'288'984	0.29	376'242
17	2012	17'000'000	9.127	1'551'604	-231'684	1'319'920	0.27	356'733
18	2013	17'000'000	9.346	1'588'843	-237'245	1'351'598	0.25	338'236
19	2014	17'000'000	9.570	1'626'975	-242'939	1'384'036	0.23	320'698
20	2015	17'000'000	9.800	1'666'022	-248'769	1'417'253	0.21	304'069
21	2016	17'000'000	10.035	1'706'007	-254'740	1'451'267	0.20	288'303
22	2017	17'000'000	10.276	1'746'951	-260'853	1'486'098	0.18	273'354
23	2018	17'000'000	10.523	1'788'878	-267'114	1'521'764	0.17	259'180
24	2019	17'000'000	10.775	1'831'811	-273'525	1'558'286	0.16	245'741
25	2020	17'000'000	11.034	1'875'775	-280'089	1'595'685	0.15	232'999
								-75'640

SHP "Rangjung", Bhutan

Cash-Flow Analysis

<i>Plant data</i>						
Plant capacity		1100 kW				
annual energy		7'900'000 kWh	Sales tariff India	1.50 Nu/kWh	3.260869565 UScents/kWh	
Investment			Foreign Inflation	2.4%		
1992	US\$	624'000	exchange rate 2000	46 Nu/US\$		
1993	US\$	2'452'304				
1994	US\$	2'122'823	discount rate	8%		
1995	US\$					
Inv. Total	US\$	5'199'127				
O&M costs	US\$/a	120'000 in 2000				

5'199'127

nominal EIRR

-3.4%

Year	Annual energy sold (kWh)	tariff UScents/kWh	Revenue (US\$)	Investment	O&M costs	Net Cash-Flow	Discounting factor	discounted cashflow
-3	1992	-	0	-624'000	-	-624'000	1.26	-786'060
-2	1993	-	0	-2'452'304	-	-2'452'304	1.17	-2'860'367
-1	1994	-	0	-2'122'823	-	-2'122'823	1.08	-2'292'649
0	1995	-	0			0	1.00	0
1	1996	1'910'044	1.425	27'209	-71'200	-43'991	0.93	-40'733
2	1997	2'181'044	1.498	32'677	-107'800	-75'123	0.86	-64'406
3	1998	2'780'556	1.340	37'250	-120'000	-82'750	0.79	-65'689
4	1999	3'000'000	1.284	38'511	-122'880	-84'369	0.74	-62'014
5	2000	3'000'000	1.353	40'598	-125'829	-85'231	0.68	-58'007
6	2001	3'000'000	1.353	40'598	-128'849	-88'251	0.63	-55'613
7	2002	7'900'000	3.261	257'609	-131'941	125'667	0.58	73'326
8	2003	7'900'000	3.339	263'791	-135'108	128'683	0.54	69'524
9	2004	7'900'000	3.419	270'122	-138'351	131'772	0.50	65'919
10	2005	7'900'000	3.501	276'605	-141'671	134'934	0.46	62'501
11	2006	7'900'000	3.585	283'244	-145'071	138'173	0.43	59'260
12	2007	7'900'000	3.671	290'042	-148'553	141'489	0.40	56'187
13	2008	7'900'000	3.760	297'003	-152'118	144'885	0.37	53'274
14	2009	7'900'000	3.850	304'131	-155'769	148'362	0.34	50'511
15	2010	7'900'000	3.942	311'430	-159'507	151'922	0.32	47'892
16	2011	7'900'000	4.037	318'904	-163'336	155'569	0.29	45'409
17	2012	7'900'000	4.134	326'558	-167'256	159'302	0.27	43'054
18	2013	7'900'000	4.233	334'395	-171'270	163'125	0.25	40'822
19	2014	7'900'000	4.334	342'421	-175'380	167'040	0.23	38'705
20	2015	7'900'000	4.438	350'639	-179'589	171'049	0.21	36'698
21	2016	7'900'000	4.545	359'054	-183'899	175'155	0.20	34'795
22	2017	7'900'000	4.654	367'671	-188'313	179'358	0.18	32'991
23	2018	7'900'000	4.766	376'496	-192'833	183'663	0.17	31'281
24	2019	7'900'000	4.880	385'531	-197'461	188'071	0.16	29'659
25	2020	7'900'000	4.997	394'784	-202'200	192'585	0.15	28'121
								-5'385'609

Household survey to be performed by college students

1. How many people are there at your house?
 male adults.....
 female adults.....
 children under 16.....

2. Indicate type of employment / occupation of household members (tick all that apply):
 a) Farming.....
 b) Trade and industry.....
 c) Services.....
 d) Shop-keeper.....
 e) Others (specify).....

3. Ask the head of the household and his wife to separately determine their ranking of basic needs / development objectives (top priority is 10, medium priority is 5, no priority is 0)

	Head of household	His wife
Water supply	<input type="checkbox"/>	<input type="checkbox"/>
Food production and preparation/cooking,	<input type="checkbox"/>	<input type="checkbox"/>
Housing improvement including heating	<input type="checkbox"/>	<input type="checkbox"/>
Employment opportunities	<input type="checkbox"/>	<input type="checkbox"/>
Health services	<input type="checkbox"/>	<input type="checkbox"/>
Education services	<input type="checkbox"/>	<input type="checkbox"/>
Electricity connection or supply improvement	<input type="checkbox"/>	<input type="checkbox"/>
Transportation facilities	<input type="checkbox"/>	<input type="checkbox"/>
Entertainment and recreation	<input type="checkbox"/>	<input type="checkbox"/>

4. Is your house electrified?
 Yes.....
 No.....

5. If yes, what is the average monthly electricity bill?.....Nu/Rs

6. What energy sources do you use for lighting the house?
 a) Candles.....
 b) Kerosene lantern.....
 c) Firewood.....
 d) Electricity.....
 e) Others (specify).....
 f) Which of the above is the most important

7. What energy source do you use for cooking?
 a) Gas stove.....
 b) Kerosene stove.....
 c) Firewood stove (Bukhari/Chulla)...
 d) Electrical hot plate / cooker.....
 e) Others (specify).....

- f) Which of the above is the most important
8. What energy source do you use for boiling water?
- a) Gas stove.....
 - b) Kerosene stove.....
 - c) Firewood stove (Bukhari/Chulla)...
 - d) Electrical hot plate / cooker.....
 - e) Others (specify).....
 - f) Which of the above is the most important
9. What energy source do you use for heating the house in winter?
- a) Gas stove.....
 - b) Kerosene stove.....
 - c) Firewood stove (Bukhari/Chulla)...
 - d) Electric heater.....
 - e) Others (specify).....
 - f) Which of the above is the most important
10. If you use firewood, where do you get it from (tick all that apply)?
- a) We collect it ourselves from the forest.....
 - b) We buy at the market, from neighbours or traders...
 - c) Which one is the main method from the above?.....
11. What is the average monthly firewood use?
-
12. If you collect firewood yourself, who does the collection work (tick all that apply)?
- a) Male adults.....
 - b) Female adults.....
 - c) Male children.....
 - d) Female children.....
 - e) If more than one of the above applies, who does most of the work?.....
13. Identify the total number of lamps (bulbs and tubes with their wattage) and all other electric appliances including their rating / wattage (only for electrified households)
- Bulbs.....
- Tube lights.....
- Electrical appliances (such as radio, TV, fans, refrigerators, room heaters, water heaters, kettles, hot plates, cookers, iron, mixer, grinder, electrical tools for carpentry, etc.)
-
-
-
-
-
-
-

14. Have there been any electrical accidents in the house?

- No, none
- Yes, but only with a minor injury
- Yes, but with a major injury
- Yes, somebody died

15. Ask the head of the family and his wife to independently state where they would invest into if they had a lot of money available.

- a) Head of the family.....
- b) Housewife.....

Date:

Name of student.....

Place (name of village, name of Gewog, name of District):.....

Household survey to be performed by secondary school pupils at their own home

1. How many people are there at your house?
 male adults.....
 female adults.....
 children under 16.....

2. Indicate type of employment / occupation of household members (tick all that apply):
 a) Farming.....
 b) Trade and industry.....
 c) Services.....
 d) Shop-keeper.....
 e) Others (specify).....

3. Ask the head of the household and his wife to separately determine their ranking of basic needs / development objectives (top priority is 10, medium priority is 5, no priority is 0)

	Head of household	His wife
Water supply	<input type="checkbox"/>	<input type="checkbox"/>
Food production and preparation/cooking,	<input type="checkbox"/>	<input type="checkbox"/>
Housing improvement including heating	<input type="checkbox"/>	<input type="checkbox"/>
Employment opportunities	<input type="checkbox"/>	<input type="checkbox"/>
Health services	<input type="checkbox"/>	<input type="checkbox"/>
Education services	<input type="checkbox"/>	<input type="checkbox"/>
Electricity connection or supply improvement	<input type="checkbox"/>	<input type="checkbox"/>
Transportation facilities	<input type="checkbox"/>	<input type="checkbox"/>
Entertainment and recreation	<input type="checkbox"/>	<input type="checkbox"/>

4. Is your house electrified?
 Yes.....
 No.....

5. If yes, what is the average monthly electricity bill?.....Nu/Rs

6. What energy sources do you use for lighting the house?
 a) Candles.....
 b) Kerosene lantern.....
 c) Firewood.....
 d) Electricity.....
 e) Others (specify).....
 f) Which of the above is the most important

7. What energy source do you use for cooking?
 a) Gas stove.....
 b) Kerosene stove.....
 c) Firewood stove (Bukhari/Chulla)...
 d) Electrical hot plate / cooker.....

- e) Others (specify).....
- f) Which of the above is the most important

8. What energy source do you use for boiling water?

- a) Gas stove.....
- b) Kerosene stove.....
- c) Firewood stove (Bukhari/Chulla)...
- d) Electrical hot plate / cooker.....
- e) Others (specify).....
- f) Which of the above is the most important

9. What energy source do you use for heating the house in winter?

- a) Gas stove.....
- b) Kerosene stove.....
- c) Firewood stove (Bukhari/Chulla)...
- d) Electric heater.....
- e) Others (specify).....
- f) Which of the above is the most important

10. If your family uses firewood, where do you get it from (tick all that apply)?

- a) We collect it ourselves from the forest.....
- b) We buy at the market, from neighbours or traders...
- c) Which one is the main method from the above?.....

11. If your family collects firewood themselves, who does the collection work (tick all that apply)?

- a) Male adults.....
- b) Female adults.....
- c) Male children.....
- d) Female children.....
- e) If more than one of the above applies, who does most of the work?.....

12. Ask the head of the family and his wife to independently state where they would invest into if they had a lot of money available.

- a) Head of the family.....
- b) Housewife.....

Date:

Name of student.....

Place (name of village, name of Gewog, name of District):.....

Household survey to be performed by local experts

1. How many people are there at your house?
 male adults.....
 female adults.....
 children under 16.....

2. Indicate type of employment / occupation of household members (tick all that apply):
 a) Farming.....
 b) Trade and industry.....
 c) Services.....
 d) Shop-keeper.....
 e) Others (specify).....

3. Ask the head of the household and his wife to separately determine their ranking of basic needs / development objectives (top priority is 10, medium priority is 5, no priority is 0)

	Head of household	His wife
Water supply	<input type="checkbox"/>	<input type="checkbox"/>
Food production and preparation/cooking,	<input type="checkbox"/>	<input type="checkbox"/>
Housing improvement including heating	<input type="checkbox"/>	<input type="checkbox"/>
Employment opportunities	<input type="checkbox"/>	<input type="checkbox"/>
Health services	<input type="checkbox"/>	<input type="checkbox"/>
Education services	<input type="checkbox"/>	<input type="checkbox"/>
Electricity connection or supply improvement	<input type="checkbox"/>	<input type="checkbox"/>
Transportation facilities	<input type="checkbox"/>	<input type="checkbox"/>
Entertainment and recreation	<input type="checkbox"/>	<input type="checkbox"/>

4. Is your house electrified?
 Yes.....
 No.....

5. If yes, what is the average monthly electricity bill?.....Nu/Rs
 What is the service level / connected capacity?Watt
 (If they do not know, check the electricity bill or ask the utility)

6. What energy sources do you use for lighting the house?
 a) Candles.....
 b) Kerosene lantern.....
 c) Firewood.....
 d) Electricity.....
 e) Others (specify).....
 f) Which of the above is the most important.....

7. What energy source do you use for cooking?
 a) Gas stove.....
 b) Kerosene stove.....
 c) Firewood stove (Bukhari/Chulla)...

- d) Electrical hot plate / cooker.....
- e) Others (specify).....
- f) Which of the above is the most important

8. Ask the head of the family and his wife to independently state their preference about heat sources for cooking and make a ranking of the following list (top priority 10, medium priority 5, low priority 0):

	Head of household	His wife
a) Open fire.....	<input type="checkbox"/>	<input type="checkbox"/>
b) Firewood stove.....	<input type="checkbox"/>	<input type="checkbox"/>
c) Gas stove.....	<input type="checkbox"/>	<input type="checkbox"/>
d) Kerosene stove.....	<input type="checkbox"/>	<input type="checkbox"/>
e) Electric hot plate.....	<input type="checkbox"/>	<input type="checkbox"/>
f) Others (specify).....	<input type="checkbox"/>	<input type="checkbox"/>

9. What energy source do you use for boiling water?

- a) Gas stove.....
- b) Kerosene stove.....
- c) Firewood stove (Bukhari/Chulla)...
- d) Electrical hot plate / cooker.....
- e) Others (specify).....
- f) Which of the above is the most important

10. What energy source do you use for heating the house in winter?

- a) Gas stove.....
- b) Kerosene stove.....
- c) Firewood stove (Bukhari/Chulla)...
- d) Electric heater.....
- e) Others (specify).....
- f) Which of the above is the most important.....

11. If you use firewood, where do you get it from (tick all that apply)?

- a) We collect it ourselves from the forest.....
- b) We buy at the market, from neighbours or traders...
- c) Which one is the main method from the above?.....

12. What is the average monthly firewood use? And how much do you pay on average?

.....

13. If you use gas and/or kerosene, what is the monthly average expenditure for these energy sources?

.....

14. If you collect firewood yourself, who does the collection work (tick all that apply)?

- a) Male adults.....
- b) Female adults.....
- c) Male children.....
- d) Female children.....

e) If more than one of the above applies, who does most of the work?.....

15. Identify the total number of lamps (bulbs and tubes with their wattage) and all other electric appliances including their rating / wattage (only for electrified households)

Bulbs.....

Tube lights.....

Electrical appliances (such as radio, TV, fans, refrigerators, room heaters, water heaters, kettles, hot plates, cookers, iron, mixer, grinder, electrical tools for carpentry, etc.)

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16. What is the approximate percentage of all energy-related expenditure per month in relation to the total income?

- a) between 5 and 10%
- b) between 10 and 25%
- c) between a quarter and a third
- d) between a third and a half

17. Has the electricity supply increased or decreased the energy-related expenditure per month?

- a) Expenditure has increased because.....
- b) Expenditure has decreased because.....

18. How convenient is the electricity supply? Any inconveniences that could be improved (e.g., insufficient capacity to operate simultaneously the appliances they would like to; inconvenience of outages, etc.). Ask the head of the household and his wife independently:

Head of Household	His wife
.....
.....
.....

19. Have there been any electrical accidents in the house?

- No, none
- Yes, but only with a minor injury
- Yes, but with a major injury
- Yes, somebody died

20. Ask the head of the household and his wife if electricity was no longer available whether they would put it as their top priority to get it back or whether other needs were more pressing.

Head of Household

a) highest importance

b) lower importance

His wife

a) highest importance

b) lower importance

21. Have one or several of the family members been able to secure a new job / occupation through the hydropower scheme or with a new business that opened up after the availability of electricity

22. Ask the head of the family and his wife to independently state where they would invest into if they had a lot of money available.

a) Head of the family.....

b) Housewife.....

23. Do family members fear theft, crime, wild animals during the night?

No.....

Yes, (specify who and what).....

Does good outdoor lighting make a difference?.....

24. What do the evening activities consist of today?

.....

Has this changed since electricity from the hydropower plant has become available?

No.....

Yes, (specify how).....

25. Ask the female family members whether they feel to have enough spare time and time for themselves.

No, because.....

Yes because.....

26. What do the family members find most attractive with an electricity supply. List all the ideas, also double and synonymous indications. Which ones have been fulfilled, which ones not.

.....

.....

.....

.....

27. What do they find attractive about radio and TV. List all the ideas, also double and synonymous indications. Have there been any objectionable broadcasts so far which they have personally watched / listened to?

.....

.....

.....

.....

28. Ask the non-electrified households why they have not been connected so far.

.....
.....
.....
.....

29. Ask the head of the family and his wife to independently describe how and by whom it was decided that they could get an electricity supply from the hydro plant or not.

.....
.....
.....
.....

30. Was this process (that had led to the above decision) the traditional way of deciding things or has the SHP project altered this process?

.....
.....
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.....
.....

31. Did they have to make any sacrifice in terms of land, trees or other contributions to the hydro plant and the transmission and distribution network? Where they happy with the way they were asked to make the sacrifice or the contribution?

.....
.....
.....
.....
.....

Interviewer:.....

Date:

Place (name of village, name of Gewog, name of District):.....

ANNEX 6

Survey Data Namche Bazaar SHP

HH No.	Village	P/C/E1. Number of people living in the hh				P/C/E2. Type of employment / occupation of hh members					E3a) Total monthly cash income of all family members	Water supply
		male adults	female adults	children <16	total	a) farming	b) trade&industry	c) services	d) shop-keeper	e) others		
E 1	Namche-Phurte	3	1	1	5	2	0	0	1	1	3000	0
E2	Namche-Samde	2	2	3	7	4	1	0	2	0	4200	0
E3	Namche-Thame	1	2	3	6	1	0	0	1	0	5000	0
E4	Namche-Thamo	1	1	2	4	2	1	0	2	0	4200	0
E5	Namche-Phurte	3	1	2	6	0	0	0	0	2	10500	2
E6	Namche-Thamo	5	1	0	6	2	1	0	0	2	2500	2
E7	Namche-Bazar	2	1	3	6	3	0	0	0	1	8500	0
E8	Namche-Bazar	1	1	2	4	2	0	0	0	1	4000	0
E9	Namche-Bazar	2	1	1	4	2	1	1	0	0	25000	0
E10	Namche-Bazar	2	3	0	5	0	2	0	0	0	21000	0
E11	Namche-Bazar	1	1	2	4	1	1	0	0	0	60000	0
E12	Namche-Bazar	2	2	0	4	0	2	0	0	0	45000	0
E13	Namche-Bazar	1	3	3	7	3	1	0	0	0	9000	0
E14	Namche-Thame	3	2	0	5	5	1	0	1	1	9000	0
E15	Namche-Thame	1	1	4	6	0	1	0	0	0	17000	1
E16	Namche-Thame	1	1	0	2	2	1	0	0	1	17000	0
E17	Namche-Thame	2	3	1	6	0	2	0	0	0	18000	0
E18	Namche-Samde	2	0	0	2	1	0	0	0	0	600	0
E19	Namche-Thamo	4	2	4	10	4	3	0	0	0	50000	0
E20	Namche-Bazar	2	1	2	5	0	0	0	2	0	4200	0
E21	Namche-Jharak	0	4	0	4	4	2	0	0	0	20000	2
E22	Namche-Jharak	1	3	1	5	4	1	0	0	0	2000	0
E23	Khumjung-Khunde	3	2	2	7	5	2	0	0	0	4200	0
E24	Khumjung-Khunde	2	2	2	6	4	2	0	0	0	20000	2
E25	Khumjung-Khunde	0	1	0	1	1	0	0	0	0	1500	0
E26	Khumjung	3	1	1	5	4	1	0	0	1	5000	0
E27	Khumjung	1	2	3	6	1	1	1	0	0	10000	0
E28	Khumjung	1	1	3	1	2	0	0	0	0	30000	0
E29	Khumjung	1	2	2	5	3	0	1	2	0	2500	1
E30	Khumjung	1	4	3	8	5	3	0	0	0	12500	2
E31	Khumjung	0	1	0	1	1	0	1	0	0	3500	2
E32	Namche-Bazar	3	2	0	5	5	2	0	0	0	50000	0
E33	Namche-Bazar	4	3	3	10	5	7	0	0	0	40000	0
P1	Khumjung	2	3	3	8	2	0	0	0	1		2
P2	Namche-Thame	1	1	4	6	1	1	0	0	0		1
P3	Namche-Thame	5	1	0	6	2	2	0	0	0		2
P4	Namche-Thame	1	1	1	3	1	1	0	0	0		1
P5	Namche-Bazar	1	2	1	4	0	1	0	0	0		1
P6	Namche-Thamo	1	2	3	6	1	1	0	0	0		1
P7	Namche-Bazar	2	3	3	8	0	2	0	0	0		1
P8	Khumjung	2	1	2	5	2	1	0	0	0		2
P9	Namche-Bazar	1	1	3	5	0	0	1	1	0		0
P10	Khumjung	0	5	1	6	4	1	0	0	0		2
P11	Khunde	2	1	1	4	1	1	0	0	0		2
P12	Khunde	2	1	2	5	1	1	0	0	0		2
P13	Namche-2	3	2	1	6	1	1	0	0	0		2
P14	Namche-Bazar	2	3	1	6	1	1	0	1	0		2
P15	Khunde	2	3	1	6	1	1	0	0	0		2
P16	Khumjung	1	2	4	7	1	1	0	0	0		2
P17	Khumjung	2	2	1	5	0	0	1	1	0		2
P18	Namche	4	2	2	8	4	2	0	0	0		2
P19	Namche-Bazar	1	2	3	6	2	1	0	0	0		2
P20	Khunde	6	2	2	10	3	2	0	0	0		2
P21	Khumjung	3	3	1	7	3	1	0	1	0		2
P22	Khunde	2	1	2	5	1	1	0	0	0		2
P23	Khumjung	2	2	1	5	2	1	0	0	0		2
P24	Khunde	2	2	3	7	2	2	0	0	0		2
P25	Khumjung	3	1	1	5	2	1	0	1	0		2
P26	Namche-Bazar	2	2	1	5	2	0	1	1	0		2
P27	Thame	1	1	4	6	1	1	0	0	0		2
P28	Khumjung	1	2	1	4	2	1	0	0	0		2

P/C3a) , E4a) Development objectives (head of hh)									P/C3b), E4b) Development objectives (sp					
food production & prep	housing improvement ir	employment opportuniti	health services	education services	electricity connection / s	transportation facilities	entertainment and recre		Water supply	food production & cooki	Domestic Heating	employment opportuniti	health services	education services
0	2	2	1	0	0	0	0	0	0	0	2	0	1	0
0	2	2	2	1	2	2	2	2	0	2	2	2	2	2
0	2	2	0	0	0	0	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	0	1	0	0	0	1	2	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
0	0	0	1	0	0	0	0	2	0	0	0	0	1	0
2	0	1	2	1	1	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	2	0	2	0	2	2	0	0	0	0	2	0	2	0
2	0	2	2	2	2	2	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	0	0	2	2	2	2	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	2	0	2	2	2	2	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	2	2	2	2	2	1	0	0	0	2	1	2	2	2
2	2	2	2	0	0	1	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	2	2	1	2	0	2	0	0	0	0	2	2	2	1
2	0	2	1	2	0	0	1	0	0	0	0	2	0	1
0	2	2	2	2	0	1	0	0	0	0	2	2	2	2
0	1	1	0	0	0	0	0	0	0	2	2	2	1	2
0	2	2	0	0	2	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0
0	0	0	1	2	2	0	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	2	0	2	1	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	0	2	2	1	2	1	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	1	2	0	0	1	2	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	0	2	0	0	0	1	1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	0	0	0	0	0	1	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	2	2	2	2	2	2	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	0	2	2	2	2	2	2	0	0	2	2	2	2	2
0	0	0	1	2	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1	0	0	1	1	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	2	2	2	1	2	1	0	0	2	2	1	2	2	1
2	2	2	1	2	0	2	2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	0	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	0	0	2	2	2	2	0	0	0	2	2	2	2	1
0	0	0	0	0	0	1	0	0	0	0	0	2	0	1
1	0	2	2	2	1	2	1	1	1	1	0	2	2	2
1	2	2	2	2	2	0	0	2	2	1	0	0	0	0
2	1	2	2	2	2	2	2	2	1	2	1	2	2	2
2	2	2	2	2	1	1	2	2	0	2	1	2	2	2
2	2	2	2	2	2	2	2	2	1	2	2	2	2	2
1	2	1	2	2	2	2	1	0	2	2	0	0	2	1
1	0	1	2	1	0	1	1	2	2	1	1	0	2	1
1	1	0	0	0	0	0	0	0	0	0	1	0	0	0
0	0	0	0	1	0	0	0	0	0	0	0	2	0	1
1	1	2	2	2	1	2	0	2	2	1	1	2	2	2
1	2	2	2	2	2	2	2	0	2	1	2	2	2	2
0	1	2	2	2	2	1	0	2	2	0	1	2	2	2
1	2	1	2	2	2	1	0	2	2	1	1	2	2	2
1	1	1	1	1	1	0	0	2	2	1	1	1	1	1
1	0	1	0	2	2	0	0	2	2	1	0	1	0	1
0	1	1	1	2	2	0	0	2	0	0	1	1	1	2
1	1	0	1	2	1	0	0	2	1	1	0	0	1	2
1	1	2	2	2	2	1	1	2	1	1	2	2	2	2
0	1	2	1	2	1	2	2	1	2	0	1	2	1	2
0	1	2	2	1	1	2	0	2	0	1	2	2	2	1
1	1	2	2	2	2	1	0	2	2	1	1	2	2	2
0	1	2	2	2	2	2	1	2	0	1	2	2	2	2
0	2	1	2	2	2	0	0	2	2	0	2	1	2	2
1	2	1	2	2	2	1	0	2	2	1	2	1	2	2
2	0	2	1	2	2	1	0	2	2	0	2	1	2	2

house)	electricity connection/su	transportation facilities	entertainment+recreatic	P/C4, E5. Is the hh electrified	P/C5. E6a) Monthly electricity bill	E6b) Service level in Watt	P/C6. E7. Energy sources for lighting						P/C7. Monthly expenditure for lighting	a) Gas stove
							a) Candles	b) Kerosene lantern	c) Firewood	d) Electricity	e) Others	f) main source		
	0	0	0	1	600	3	1	1	1	1	0	0	0	
	2	2	2	1	360	n.a.	0	1	0	0	1	1	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	0	1	0	1	0	0	0	
	0	0	2	1	600	3	0	1	0	1	0	0	0	
	0	0	0	1	600	3	0	1	0	1	0	0	0	
	0	0	0	1	60	1	0	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	1000	n.a.	1	1	0	1	0	0	0	
	2	2	0	1	600	3	1	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	1	0	0	1	1	0	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	1	0	0	1	1	0	0	
n.a.	n.a.	n.a.	n.a.	1	1000	3	1	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	8000	3	1	1	0	1	0	0	1	
	0	1	0	1	3000	1	1	1	0	1	1	0	1	
n.a.	n.a.	n.a.	n.a.	1	600	3	1	1	0	1	0	0	0	
	0	2	0	1	600	3	0	1	0	1	0	0	0	
	0	1	0	1	600	3	1	1	0	1	0	0	0	
	0	1	0	1	600	3	0	1	0	1	0	0	0	
	0	2	2	1	600	3	0	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	0	n.a.	n.a.	0	1	0	0	0	0	0	
	0	0	2	1	600	3	0	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	450	2&3	1	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	0	n.a.	n.a.	1	1	0	0	1	0	1	
n.a.	n.a.	n.a.	n.a.	0	n.a.	n.a.	0	0	0	0	1	0	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	0	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	1	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	0	1	0	1	0	0	0	
	2	2	2	1	60	1	1	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	900	3	1	0	1	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	0	1	0	1	0	0	1	
n.a.	n.a.	n.a.	n.a.	1	600	3	1	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	0	1	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	1	600	3	0	1	0	1	0	0	0	
	2	2	2	1	1600	5	1	1	0	1	0	0	0	
	2	2	2	1	3000	1	1	0	1	0	0	0	0	
	0	0	0	1	600	1	0	1	1	1	0	900	0	
	1	2	1	1	600	1	1	0	1	1	0	900	0	
	0	0	0	1	600	0	0	0	1	1	0	600	0	
	2	2	2	1	600	0	0	0	1	1	0	600	0	
	2	1	2	1	600	0	0	0	0	1	0	700	0	
	2	2	2	1	600	1	0	0	1	1	0	900	0	
	2	1	1	1	600	0	0	0	0	1	1	700	0	
	0	0	1	1	600	0	0	0	1	1	0	900	0	
	0	0	0	1	100	0	0	0	1	1	0	100	0	
	0	0	0	1	600	0	0	1	1	1	0	900	0	
	1	2	0	1	600	1	1	0	1	1	0	700	0	
	2	2	0	1	600	1	1	1	1	1	0	700	0	
	1	1	0	1	1500	1	1	0	0	1	0	1600	0	
	2	0	1	1	1500	0	0	0	1	1	0	2000	1	
	2	1	0	1	600	1	0	0	1	1	0	700	0	
	1	0	0	1	3000	1	1	1	1	1	0	3100	0	
	1	0	0	1	600	0	0	0	0	1	0	720	0	
	2	0	0	1	600	1	1	1	1	1	0	650	0	
	1	0	0	1	600	0	0	0	0	1	0	700	0	
	2	1	1	1	600	0	1	1	1	1	0	700	0	
	1	2	1	1	600	1	1	1	1	1	0	900	0	
	2	2	0	1	600	1	1	1	1	1	0	850	0	
	1	1	0	1	600	1	1	1	1	1	0	700	1	
	2	1	0	1	600	1	0	0	1	1	0	700	1	
	1	2	1	1	600	1	1	1	1	1	0	900	0	
	2	1	0	1	600	1	1	1	1	1	0	650	0	
	2	1	0	1	600	1	1	1	1	1	0	700	1	
	1	1	0	1	600	1	1	1	1	1	0	800	0	

Source for heating the house			P/C11. E12. Source of firewood									P/E13. Hrs/week of fw collection	P/E14. Tin collection
d) Electric heater	e) others	f) main source	a) self-collection from th	b) buy it at the market, f	c) which one is main sc	a) male adults	b) female adults	c) male children	d) female children	e) Hired labor	f) Who does most of it		a) more
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	1	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
1	0	d	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	1	1	0	0	1	e	5	0
1	0	d	0	1	b	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	1	1	0	0	1	b	20	0
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	1	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
1	0	d	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	1	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
1	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
1	0	d	1	0	a	1	0	0	0	0	a	15	n.a.
0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0	1	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	1	0	0	0	b	20	n.a.
0	1	c	1	0	a	0	0	0	0	0	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	1	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
1	0	d	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
1	0	d	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	1	1	0	1	1	a&d	20	0
1	0	d	1	0	a	0	0	0	0	0	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	42	0
0	0	c	1	0	a	0	1	1	1	0	d	10	0
0	0	c	1	0	a	1	1	0	0	0	a	5	0
1	0	c	1	0	a	1	1	0	0	0	a	28	1
1	0	c&d	1	0	a	1	0	1	0	0	a	10	0
0	0	c	1	0	a	1	1	1	1	1	d	6	0
1	0	c	1	0	a	1	1	0	0	0	b	6	0
1	0	c	1	0	a	1	1	0	0	0	a	11	0
0	0	c	1	0	a	0	0	0	1	0	d	5	0
0	0	c	1	0	a	0	0	0	0	1	e	7	0
1	0	c	1	0	a	1	0	0	0	1	e	7	0
1	0	c	1	0	a	1	0	1	0	0	a	8	0
1	0	d	1	0	a	1	0	0	0	1	e	6	0
1	0	d	1	0	a	1	1	1	0	0	a	3	0
1	0	d	1	0	a	1	1	0	0	1	b	6	0
1	0	c	1	0	a	0	1	0	0	1	b	10	0
0	0	c	1	0	a	0	1	0	0	1	b	20	0
1	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.
1	0	c	1	0	a	1	0	0	0	1	a	30	0
1	0	c	1	0	a	1	0	1	0	0	a	8	0
1	0	d	1	0	a	1	0	0	0	1	a	30	0
1	0	c	1	0	a	1	0	0	0	0	a	40	0
1	0	c	1	0	a	1	1	0	0	1	a	7	0
1	0	c	1	0	a	1	0	0	0	1	e	70	0
1	0	d	1	0	a	1	0	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	1	1	0	1	0	b	30	0
1	0	c	1	0	a	0	1	0	0	1	e	n.a.	n.a.
0	0	c	1	0	a	0	0	0	0	1	e	n.a.	n.a.

ne spent for fuelwood since electrification				C14, E19. Electrical lights and appliances in the hh										
b) same	c) less	C12. E15a) Monthly average firewood use (use one and the same unit only, convert other	E15b): Monthly expenditure for firewood purchases	number of light bulbs	number of tube lights	wattage of all light bulbs (sum)	wattage of all tube lights (sum)	radio-cassette deck (available 1, n a 0)	TV	fan	refrigerator	room heater	water heater (kettle)	
n.a.	n.a.	10	850	2	2	n.a.	n.a.	0	0	0	0	0	1	
n.a.	n.a.	18	1800	5	0	n.a.	n.a.	0	0	0	0	0	0	
n.a.	n.a.	10	1500	4	1	n.a.	n.a.	0	0	0	0	1	0	
0	1	3	150	3	3	n.a.	n.a.	1	0	0	0	0	1	
n.a.	n.a.	1	100	5	2	n.a.	n.a.	0	0	0	0	0	1	
1	0	20	500	2	0	n.a.	n.a.	0	0	0	0	0	0	
n.a.	n.a.	20	1600	13	4	n.a.	n.a.	1	1	0	0	1	1	
n.a.	n.a.	6	800	2	4	n.a.	n.a.	0	1	0	0	0	1	
n.a.	n.a.	2	150	17	6	n.a.	n.a.	1	0	0	1	1	1	
n.a.	n.a.	20	3000	15	10	n.a.	n.a.	1	1	1	1	1	1	
n.a.	n.a.	15	3000	70	19	n.a.	n.a.	1	1	1	1	1	1	
n.a.	n.a.	15	3000	30	8	n.a.	n.a.	1	1	1	1	1	1	
n.a.	n.a.	20	1600	9	4	n.a.	n.a.	1	1	0	1	0	1	
n.a.	n.a.	10	2000	6	2	n.a.	n.a.	1	1	0	0	0	1	
n.a.	n.a.	10	1000	3	10	n.a.	n.a.	1	0	0	0	0	1	
n.a.	n.a.	30	3000	4	2	n.a.	n.a.	0	0	0	0	0	0	
n.a.	n.a.	15	1500	6	6	n.a.	n.a.	1	0	0	0	0	0	
n.a.	n.a.	4	0	n.a.	n.a.	n.a.	n.a.	0	0	0	0	0	0	
n.a.	n.a.	10	1000	4	2	n.a.	n.a.	1	0	0	0	1	1	
n.a.	n.a.	n.a.	n.a.	7	2	n.a.	n.a.	1	0	0	0	0	0	
n.a.	n.a.	10	1500	n.a.	n.a.	n.a.	n.a.	1	0	0	0	0	0	
n.a.	n.a.	30	0	n.a.	n.a.	n.a.	n.a.	0	0	0	0	0	0	
n.a.	n.a.	20	1200	2	3	n.a.	n.a.	1	0	0	0	0	0	
n.a.	n.a.	20	4000	8	0	n.a.	n.a.	1	0	0	0	0	0	
n.a.	n.a.	5	300	5	2	n.a.	n.a.	0	0	0	0	0	0	
n.a.	n.a.	20	2000	2	0	n.a.	n.a.	1	0	0	0	0	0	
n.a.	n.a.	2	200	14	4	n.a.	n.a.	1	1	1	1	1	1	
n.a.	n.a.	10	2000	13	5	n.a.	n.a.	1	1	0	0	1	1	
n.a.	n.a.	1	100	4	2	n.a.	n.a.	1	0	0	0	1	1	
0	1	10	100	5	2	n.a.	n.a.	1	0	0	0	0	1	
n.a.	n.a.	1	150	5	1	n.a.	n.a.	0	0	0	0	1	1	
n.a.	n.a.	20	3000	24	5	n.a.	n.a.	1	1	0	0	1	1	
n.a.	n.a.	20	5000	40	6	n.a.	n.a.	1	1	0	1	1	1	
0	1													
1	0													
0	1													
0	0													
0	1													
1	0													
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0	1													
0	1													
0	1													
0	1													
0	1													
n.a.	n.a.	1												
0	1													
0	1													
0	1													
0	1													
0	1													
0	1													
n.a.	n.a.	1												
0	1													
n.a.	n.a.	1												
n.a.	n.a.													

E26a) Investment targets if money were available (head of household)								P15b) C16b) E26b) Investment targets if money were available (s							
housing improvement	employment opportuniti	health surivces	education services	electricity connection	transportation facilities	entertainment+recreatic		Water supply	food production	housing improvement	employment opportuniti	health surivces	education services	electricity connection	
1	0	0	0	0	0	0		0	0	1	0	0	0	0	
0	1	0	0	0	0	0		0	0	0	1	0	0	0	
0	1	0	0	0	0	0	n.a.	n.a.	0	n.a.	n.a.	n.a.	n.a.	0	
0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	
1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
1	1	0	1	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	0	1	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	1	0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	
1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	

Inconvenience of present electricity supply (spouse)						E24a How important is electricity? (HH)		E24a How important is electricity? (Sp)		E25a) number of jobs gained through mini hydro project / electrification	E25b) number of jobs lost through mini hydro project / electrification	27a: Do family members fear theft, crime, wild animals during the night
frequent outages	expensive tariff	appliances expensive	potentially dangerous	other	highest importance	lower importance	highest importance	lower importance				
0	0	0	0	0	1	0	1	0	0	0	0	
0	0	0	0	0	1	0	1	0	1	1	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
0	0	0	0	0	1	0	1	0	1	1	0	
0	0	0	0	0	1	0	1	0	1	0	0	
0	0	0	0	0	1	0	1	0	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	1	0	0	
0	0	0	0	0	1	0	1	0	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	1	0	0	
0	0	0	0	0	1	0	1	0	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
0	0	0	0	0	1	0	1	0	1	1	0	
0	0	0	0	0	1	0	1	0	1	0	0	
0	0	0	0	0	1	0	1	0	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1	0	0	
0	0	0	0	0	1	0	1	0	1	1	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
0	0	0	0	0	1	0	1	0	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
0	0	0	0	0	1	0	1	0	1	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	0	0	0	
n.a.	n.a.	n.a.	n.a.	n.a.	1	0	n.a.	n.a.	1	0	0	
0	0	0	0	0	1	0	1	0	1	0	0	

27b: Does good outdoor lighting make a difference?	E28a) Evening activities today							E28b) Change since electricity has become available?	E29: Female family members have enough spare time and time for themselves	E30: What is most attractive							
	go to bed early	discussions / worshipping with family members, neighbours	reading	TV, radio	housework	handicraft for sale, pres	it makes information available through radio, TV			it is labour saving	it makes the days longer / more productive through	it improves safety	it provides attractive entertainment through radio, cassette, TV	it makes us feel part of the modern world			
n.a.	1	0	1	0	0	0	1	1	1	0	1	1	0	1	0	0	0
	1	0	1	0	0	0	1	1	1	0	1	1	0	0	0	0	0
	1	0	0	1	0	0	0	1	1	0	1	1	0	0	1	0	0
	1	0	1	1	0	0	0	1	1	0	1	1	0	0	0	0	0
	1	0	1	0	0	0	0	1	1	1	1	1	1	0	1	0	0
	1	0	0	0	1	0	0	1	1	0	1	1	0	0	0	0	0
	1	0	0	0	0	0	0	1	1	0	1	1	0	0	1	0	0
	1	0	0	0	1	0	0	1	1	1	1	1	0	0	1	0	0
	1	0	1	0	0	0	0	1	1	1	1	1	0	0	1	0	0
	1	0	1	0	1	0	0	1	1	1	1	1	0	0	1	0	0
	1	0	1	0	0	0	0	1	1	0	1	1	0	0	1	1	0
	1	0	1	0	0	0	0	1	1	0	1	1	0	0	0	0	0
n.a.	1	1	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1	0	1	0	0	0	1	0	1	0	1	1	0	0	0	0	0
n.a.	1	1	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	1	1	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	1	1	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0
	1	0	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0
	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0
	1	0	0	1	0	0	0	0	1	1	1	1	0	0	0	0	0
	1	0	1	0	0	0	0	0	1	1	1	1	1	1	0	0	0
	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0
	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0
	1	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0
	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0
	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0
	1	0	1	0	0	0	0	0	1	1	1	1	1	0	0	0	0
	1	0	1	0	0	0	0	0	1	1	1	1	1	0	0	0	0

E32: Why are non-electrified hh not connected?						E31a) What is attractive about radio and TV				E33: Why are non-electrified hh not connected?				E35: Process for getting an electricity connection was a traditional process of decision making	
it brings modern communication services	it improves health conditions in the house (smoke)	it brings about better education services	it improves health services in the area	it provides job opportunities through electric machinery		news services	good entertainment	good for education	it makes us feel part of the modern world	E31b) Some radio / TV broadcasts have been objectionable (yes=1, no=0)	project parameter exclu	too expensive	not interested in the ser	too dangerous	
0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.					1
0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	1	0	0	0	n.a.
0	1	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.					1
0	1	0	0	0	0	0	1	0	0	0					0
0	1	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.					0
0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.					0
0	0	0	0	0	0	0	1	0	0	0	0				0
0	0	0	0	0	0	0	0	1	0	0	0				0
0	0	0	0	0	0	0	1	1	0	0	0				0
0	0	0	0	0	0	0	0	1	0	0	0				0
0	0	0	0	0	0	0	1	1	0	0	0				0
0	1	0	0	0	0	0	0	0	1	0	0				1
0	0	0	0	0	0	0	1	1	0	0				n.a.	
0	0	0	0	0	0	0	1	1	0	0				n.a.	
1	0	0	0	0	0	0	0	1	1	0					0
0	0	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.					0
0	1	0	0	0	0	0	0	1	0	0	0				0
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	1	0	0	n.a.
0	0	0	0	0	0	0	0	1	0	0	0				0
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0	0	1	0	0	0				1
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1	1	0	0	0	0				0
0	1	0	0	0	0	n.a.	n.a.	n.a.	n.a.	n.a.	0				1
0	0	0	0	0	0	0	0	1	0	0	0				n.a.
0	0	0	0	0	0	0	0	0	0	0	0				n.a.
0	0	0	0	0	0	0	0	1	0	0	0				0
0	0	0	0	0	0	0	0	1	0	0	0				0
0	1	0	0	0	0	0	0	1	0	0	0				0
0	1	0	0	0	0	0	1	1	0	0	0				n.a.
0	1	0	0	0	0	0	1	1	0	0	0				n.a.
0	0	0	0	0	0	0	0	1	0	0	0				0
0	0	0	0	0	0	0	0	1	0	0	0				0
0	1	0	0	0	0	0	0	1	0	0	0				n.a.
0	1	0	0	0	0	0	0	1	0	0	0				n.a.
0	1	0	0	0	0	0	0	1	0	0	0				0
0	1	0	0	0	0	1	1	0	0	1					0

E36: Satisfied with the way they were asked to make a sacrifice in terms of land, etc. Or a contribution to the project	
n.a.	1
n.a.	
n.a.	
n.a.	
	1
n.a.	
	1
n.a.	
	1
n.a.	
n.a.	
	1
	1
	1
	1
	1
n.a.	
	1
	1
n.a.	
n.a.	
	1
n.a.	
	1
	1
n.a.	
n.a.	
n.a.	
n.a.	

ANNEX 7

Survey Data Rangjung SHP

HH No.	Village / Gewog	P/C/E1. Number of people living in the hh				P/C/E2. Type of employment / occupation of hh members					E3a) Total monthly cash income of all family members (convert annual indications into monthly figures)	P/C3a) , E4a) Development objectives (head of hh)									
		male adults	female adults	children <16	total	a) farming	b) trade&industry	c) services	d) shop-keeper	e) others		Water supply	food production & preparation (cooking)	housing improvement incl. Heating	employment opportunities	health services	education services	electricity connection / supply improvem	transportation facilities	entertainment and recreation	Water supply
1	Radhi	4	4	3	11	1				1	1833	2	1	1	0	2	1	2	1	2	2
2	Radhi	2	1	2	5	1					3592	2	1	2	2	1	1	0	1	0	2
3	Radhi	2	1	0	3	1					1458	0	1	2	1	1	1	1	2	0	1
4	Radhi	1	2	3	6	1				1	1542	2	2	2	1	2	2	2	1	2	2
5	Radhi	3	4	4	11				1		5275	2	2	2	1	2	1	2	1	2	2
6	Radhi	3	2	2	7	1					1242	2	2	2	1	2	2	1	2	2	1
7	Radhi	2	2	3	7	1					517	1	2	2	1	2	2	2	1	1	2
8	Radhi	2	2	3	7	1					150	1	2	2	1	2	2	2	0	1	2
9	Radhi	3	2	3	8	1					225	1	1	2	2	2	2	2	1	1	1
10	Radhi	4	3	1	8	1					358	2	2	2	0	2	2	2	1	2	2
11	Radhi	3	2	1	6	1					67	1	1	1	1	2	2	1	1	1	1
12	Radhi	4	3	3	10	1					267	2	2	2	1	2	2	2	2	1	2
13	Radhi	4	2	1	7	1				1	2135	0	1	2	2	1	1	1	0	0	0
14	Radhi	1	1	1	3	1					3047	2	1	1	2	0	0	0	0	2	2
15	Radhi	2	4	4	10	1					3289	2	1	2	2	0	0	0	1	2	2
16	Radhi	2	4	4	10	1					1775	2	1	2	2	0	0	1	2	2	1
17	Radhi	8	3	2	13	1				1	2083	2	0	0	0	0	0	1	2	2	1
18	Radhi	2	2	2	6	1				1	683	2	0	1	0	0	0	2	1	2	0
19	Radhi	2	3	1	6	1					150	0	1	2	0	0	0	1	1	1	2
20	Radhi	2	2	3	7	1					1500	2	2	1	2	0	2	1	1	1	2
21	Radhi	3	2	3	8	1				1	2000	2	2	1	2	2	2	2	1	2	2
22	Radhi	2	1	3	6	1					2525	2	2	2	2	2	2	2	2	2	2
23	Radhi	4	1	0	5					1	3500	2	2	2	0	2	1	1	2	2	2
24	Radhi	2	1	2	5	1					1583	2	2	1	2	1	2	2	1	2	2
25	Radhi	1	1	0	2	1				1	1583	2	1	0	0	1	0	2	0	2	1
26	Radhi	1	1	2	4	1				1	1750	2	1	1	0	2	2	1	2	0	1
27	Radhi	1	1	1	3	1				1	667	2	2	2	2	2	2	2	2	2	2
28	Radhi	2	4	4	10	1					2917	2	2	1	1	2	2	0	2	2	2
29	Radhi	1	1	3	5	1				1	133	2	2	2	2	2	2	2	2	2	2
30	Radhi	1	1	2	4	1					2625	2	1	2	2	2	2	2	1	2	2
31	Radhi	2	2	3	7	1				1	3042	2	2	2	2	2	1	2	1	2	2
32	Galing	3	2	1	6	1				1	1000										
33	Galing	1	1	4	6	1					58	2	1	2	2	2	2	2	1	1	1
34	Galing	2	2	0	4	1						2	2	1	2	1	2	0	0	2	2
35	Galing	4	3	2	9	1				1	3120	2	2	1	2	2	1	2	2	2	2
36	Galing	4	1	0	5	1				1	1000	2	2	1	1	2	1	1	2	2	2
37	Galing	4	2	2	8	1					500	2	2	2	1	2	2	0	2	2	2
38	Galing	2	1	2	5	1				1	3350	2	2	0	2	2	2	2	0	2	2
39	Galing	4	3	4	11	1				1	500	2	2	1	1	2	2	2	1	2	2

HH No.	Village / Gewog	P/C3b), E4b) Development objectives (spouse)							P/C4, E5. Is the hh electrified	P/C5. E6a) Monthly average electricity bill in Nu	E6b) Service level / connected capacity in Watt	P/C6. E7. Energy sources for lighting						P/C7. Monthly average expenditure for lighting (all sources) (Nu)	P/C/E8. Energy sou		
		housing improvement incl. Heating	employment opportunities	health services	education services	electricity connection / supply improvem	transportation facilities	entertainment and recreation				a) Candles	b) Kerosene lantern	c) Firewood	d) Electricity	e) Others	f) main source		a) Gas stove	b) Kerosene stove	c) Firewood stove
1	Radhi	0	1	2	2	1	1	0	1	35	60					d	47				
2	Radhi	1	0	1	1	1	1	0	1	35	60					d	145				
3	Radhi	2	2	1	1	1	1	1	1	65	60					d	65				
4	Radhi	1	1	2	2	1	2	1	1	135	100	1	1			d	171			1	
5	Radhi	2	1	2	2	1	2	2	1	135	60					d	255				
6	Radhi	0	0	1	1	2	2	0	2	35	140		1			d	35			1	
7	Radhi	2	1	1	2	1	2	2	1	35	140			1		d	225			1	
8	Radhi	2	0	1	1	1	2	2	1	35	140			1		d	350			1	
9	Radhi	2	1	2	2	2	2	1	1	35	100					d	300			1	
10	Radhi	2	0	2	2	2	2	2	1	35	160					d	435			1	
11	Radhi	2	1	2	2	1	2	0	1	35	200					d	535	1			
12	Radhi	2	0	2	2	1	2	1	1	35	140					d	315			1	
13	Radhi	2	1	1	1	1	0	1	1	45	140					d	320			1	
14	Radhi	1	1	0	0	0	2	1	1	60	140					d	600	1	1	1	
15	Radhi	2	1	0	0	0	0	1	1	35	140		1			d	300		1	1	
16	Radhi	2	2	0	0	1	0	1	1	35	140		1			d	500		1	1	
17	Radhi	0	0	0	0	1	0	1	1	37	140		1			d	350			1	
18	Radhi	1	0	0	0	2	0	1	1	35	100		1			d	200				
19	Radhi	1	0	0	0	2	0	1	1	35	100		1	1		d	400	1		1	
20	Radhi	1	1	1	2	1	1	0	1	35	200		1			d	60			1	
21	Radhi	0	1	2	1	2	2	0	1	35	200		1			d	80			1	
22	Radhi	2	2	2	2	2	2	2	1	35	140			1		d	100		1	1	
23	Radhi	2	0	2	1	2	2	2	1	35	140			1		d	75		1	1	
24	Radhi	1	2	1	1	1	2	1	1	35	140		1			d	60		1	1	
25	Radhi	1	0	2	0	2	2	0	1	35	140		1			d	60		1	1	
26	Radhi	1	0	2	2	1	2	0	1	35	140			1		d	500			1	
27	Radhi	2	2	2	2	2	2	2	1	45	140			1		d	160			1	
28	Radhi	1	1	1	2	2	2	0	1	45	100		1			d	130			1	
29	Radhi	2	2	2	2	2	2	2	1	35	140		1			d	150			1	
30	Radhi	2	1	2	2	1	2	1	1	35	140		1			d	120			1	
31	Radhi	2	1	2	2	1	2	1	1	35	140		1	1		d	300			1	
32	Galing								1	45	100		1			b	500			1	
33	Galing	2	2	2	2	2	2	2	1	35	140		1	1		c	10			1	
34	Galing	1	2	1	2	2	2	0	1	50	140	1	1			d	50			1	
35	Galing	1	2	2	2	2	1	2	1	25	140		1			d	200			1	
36	Galing	1	2	1	2	2	1	1	1	35	100		1	1		c	35			1	
37	Galing	2	1	2	2	2	0	2	1	35	160		1			c,d	350			1	
38	Galing	0	2	2	2	2	2	0	1	15	100		1	1		c	20			1	
39	Galing	1	2	2	2	1	2	0	1	35	140	1	1			d	95			1	

HH No.	Village / Gewog	Energy source for cooking			E9a) Preferred energy source for cooking (head of hh)						E9b) Preferred energy source for cooking (spouse)						P/C9. E10 Energy source for boiling water						P/C1
		d) Electric hot plate / cooker	e) Others	f) Main source	a) Gas stove	b) Kerosene stove	c) Firewood stove	d) Electric hot plate / cooker	e) Others	f) Main source	a) Gas stove	b) Kerosene stove	c) Firewood stove	d) Electric hot plate / cooker	e) Others	f) Main source	a) Gas stove	b) Kerosene stove	c) Firewood stove	d) Electric hot plate / cooker	e) Others	f) main source	a) Gas stove
1	Radhi			a	1					a					a	1						a	1
2	Radhi			b		1				b	1				b		1					b	
3	Radhi			c			1			c		1			c			1				c	
4	Radhi			a	1		1			a	1				a				1			d	
5	Radhi			a	1					a	1				a					1		d	
6	Radhi			c			1			c		1			c			1				a	
7	Radhi			c			1			c		1			c			1				c	
8	Radhi			c			1			c		1			c			1				c	
9	Radhi			c			1			c		1			c			1				c	
10	Radhi			c			1			c		1			c			1				d	
11	Radhi			a	1					d	1				d				1			d	
12	Radhi			c			1			c		1			c			1				c	
13	Radhi			c			1			c		1			c			1				c	
14	Radhi			a	1		1			a	1				a		1		1			c	
15	Radhi			c			1			c		1			c			1				c	
16	Radhi			c			1			c		1			c			1				c	
17	Radhi			c			1			c		1			c			1				c	
18	Radhi			a	1					a	1				a				1			c	
19	Radhi			c			1			c		1			c			1				c	
20	Radhi			c			1			c		1			c			1				c	
21	Radhi			c			1			c		1			c			1				c	
22	Radhi			c			1			c		1			c			1				c	
23	Radhi			c			1			c		1			c			1				c	
24	Radhi			c			1			c		1			c			1				c	
25	Radhi			c			1			c		1			c			1				c	
26	Radhi			c			1			c		1			c			1				c	
27	Radhi			c			1			c		1			c			1				c	
28	Radhi			c			1			c		1			c			1				c	
29	Radhi			c			1			c		1			c			1		1		c	
30	Radhi			c			1			c		1			c			1		1		c	
31	Radhi			c			1			c		1			c			1				c	
32	Galing			c			1			c		1			c			1				c	
33	Galing			c			1			c		1			c			1				c	
34	Galing			c			1			c		1			c			1				c	
35	Galing			c			1			c		1			c		1					c	
36	Galing			c			1			c		1			c			1				c	
37	Galing			c			1			c		1			c			1				c	
38	Galing			c			1			c		1			c			1				c	
39	Galing			c			1			c		1			c			1				c	

HH No.	Village / Gewog	P/E11. Energy source for heating the house						P/C11. E12. Source of firewood			P12. C13. E18. Firewood collection work by:					P/E13: Hours per week of firewood collection	P/E14. Time spent for fuelwood collection since electrification			C12: E15a) Monthly average firewood use (in m3 of chopped mixture of hardwood and coniferous wood = ca. 6300MJ)	E15b): Monthly expenditure for firewood purchases
		b) Kerosene stove	c) Firewood stove	d) Electric heater	e) others	f) main source	a) collect it ourselves from the forest	b) buy it at the market, from neighbours	c) which one, a or b is the main source	a) male adults	b) female adults	c) male children	d) female children	e) who does most of it (a, b, c, d)	a) more		b) same	c) less			
1	Radhi		1			c	1		a	1			a								
2	Radhi		1			c	1		a	1			a								
3	Radhi		1	1		c	1		a	1			a								
4	Radhi		1	1		c			b	1			a								
5	Radhi		1			c			b	1			a								
6	Radhi		1	1		c	1		a	1	1		a							1	
7	Radhi		1	1		d	1		a	1	1		a							1	
8	Radhi		1	1		d	1		a	1	1	1	a							1	
9	Radhi		1			d	1		a	1	1	1	a							1	
10	Radhi		1	1		d			b	1			a								
11	Radhi		1	1		d	1		a	1			a								
12	Radhi		1	1		c	1		a	1			a								
13	Radhi	1	1	1		c	1		a	1			a								
14	Radhi		1			c	1		a	1			a								
15	Radhi	1	1			c	1		a	1			a								
16	Radhi		1			c	1		a	1			a								
17	Radhi		1			c	1		a	1			a								
18	Radhi		1			c	1		a	1			a								
19	Radhi		1			c	1		a	1			a								
20	Radhi		1		1	c	1		a	1			a								
21	Radhi		1	1		c	1		a	1			a								
22	Radhi	1	1	1		d	1		a	1			a								
23	Radhi		1			c			b	1			a							1	
24	Radhi		1			c	1		a	1		1	a								
25	Radhi		1			c	1		a	1			a								
26	Radhi		1	1		c	1		a	1			a							1	
27	Radhi		1	1		c	1		a	1			a							1	
28	Radhi		1			c	1		a	1			a							1	
29	Radhi		1	1		c	1		a	1			a							1	
30	Radhi		1	1		c	1		a	1			a							1	
31	Radhi		1	1		c	1		a	1			a							1	
32	Galing		1	1		c	1		a	1			a							1	
33	Galing		1	1		c	1		a	1		1	a							1	
34	Galing		1	1		c	1		a	1		1	a							1	
35	Galing		1	1		c	1		a	1		1	a							1	
36	Galing		1			c	1		a	1			a							1	
37	Galing		1	1		c	1		a	1		1	a							1	
38	Galing		1			c	1		a	1			a							1	
39	Galing		1			c	1		a	1		1	a							1	

HH No.	Village / Gewog	C14, E19. Electrical lights and appliances in the hh															E16a): Monthly expenditure for LPG	E16b): Monthly expenditure for kerosene	E17: Monthly expenditure for energy other than electricity, LPG and kerosene	C15. E23 Electrical accidents in the hh				
		number of light bulbs	number of tube lights	wattage of all light bulbs (sum)	wattage of all tube lights (sum)	radio-cassette deck (available 1, not available 0)	TV	fan	refrigerator	room heater	water heater (kettle)	hot plate, cooker	iron	mixer, grinder for preparing food	carpentry tools	others				no, none	yes, but only with minor injury	yes, but with a major injury	yes, somebody died	
1	Radhi	12	4	720	160	1	1												1					
2	Radhi	10	4	600	160	1													1					
3	Radhi	4	1	240	40	1													1					
4	Radhi	7	3	700	120	1													1					
5	Radhi	10	6	600	240	1		1	1										1					
6	Radhi	6	4	360	160	1													1					
7	Radhi	15	2	1500	80	1													1					
8	Radhi	15	2	1500	80	1													1					
9	Radhi	3		300		1				1									1					
10	Radhi	9	4	540	160	0		1	1										1					
11	Radhi	12	5	720	200	1	1	1		1									1					
12	Radhi	6	2	600	80	1													1					
13	Radhi	5	2	500	80	1				1									1					
14	Radhi	6	1	600	40	1				1									1					
15	Radhi	2	1	200	40														1					
16	Radhi	2	1	200	40														1					
17	Radhi	5	2	500	80	1													1					
18	Radhi	4	2	240	80	1													1					
19	Radhi	1	1	60	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Radhi	4	2	400	80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Radhi	4	2	400	80	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
22	Radhi	6	2	360	80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Radhi	4	1	400	40	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Radhi	4	1	240	40	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	Radhi	3	2	300	80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Radhi	4	2	400	80	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
27	Radhi	5	2	500	80	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
28	Radhi	2	1	120	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Radhi	6	2	600	80	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
30	Radhi	2	2	200	80	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
31	Radhi	8	3	800	120	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
32	Galing	6	2	360	80	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Galing	1	1	100	40	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Galing	3	2	300	80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Galing	2	2	200	80	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
36	Galing	2		200		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	Galing	4		400		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	Galing	1	3	60	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Galing	7	2	700	80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

HH No.	Village / Gewog	P15a) C16a) E26a) Investment targets if money were available (head of household)										P15b) C16b) E26b) Investment targets if money were available (spouse)										expenditure in re total ir	
		Water supply	food production	housing improvement	employment opportunities	health services	education services	electricity connection	transportation facilities	entertainment and recreation	saving (bank)	Water supply	food production	housing improvement	employment opportunities	health services	education services	electricity connection	transportation facilities	entertainment and recreation	saving (bank)	a) between 5 and 10%	b) between 10 and 25%
1	Radhi																						
2	Radhi																						
3	Radhi																						
4	Radhi																						
5	Radhi																						
6	Radhi																						
7	Radhi																						
8	Radhi																						
9	Radhi																						
10	Radhi																						
11	Radhi																						
12	Radhi																						
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28	Radhi																						
29	Radhi																						
30	Radhi																						
31	Radhi																						
32	Galing																						
33	Galing																						
34	Galing																						
35	Galing																						
36	Galing																						
37	Galing																						
38	Galing																						
39	Galing																						

HH No.	Village / Gewog	Relation to monthly income		E21. Has energy-related expenditure increased or decreased after electricity became available? (increased=1, same 0, decreased=-1)	E22a) Inconvenience of present electricity supply (head of hh)					E22b) Inconvenience of present electricity supply (spouse)					E24a) How important is electricity? (hh)		E24b) How important is an electricity supply? (spouse)		E25a) number of jobs gained through mini hydro project / electrification	
		c) between 25 and 33%	between 33 and 50%		insufficient capacity	frequent outages	expensive tariff	appliances expensive	potentially dangerous	other	insufficient capacity	frequent outages	expensive tariff	appliances expensive	potentially dangerous	other	highest importance	lower importance		highest importance
1	Radhi			0			1		1			1		1		1		1		1
2	Radhi			1												1		1		1
3	Radhi			1			1					1			1		1		1	
4	Radhi			0			1	1	1			1	1	1	1		1		1	
5	Radhi			0			1	1				1	1		1		1		1	
6	Radhi			0					1				1		1		1		1	
7	Radhi			1			1					1			1		1		1	
8	Radhi			1			1					1			1		1		1	
9	Radhi			1			1	1				1	1		1		1		1	
10	Radhi			1								1			1		1		1	
11	Radhi			0			1	1				1	1		1		1		1	
12	Radhi			0			1	1				1	1		1		1		1	
13	Radhi			0			1	1				1	1		1		1		1	
14	Radhi							1				1	1		1		1		1	
15	Radhi			1				1				1	1		1		1		1	
16	Radhi			1			1	1				1	1		1		1		1	
17	Radhi			-1			1	1				1	1		1		1		1	
18	Radhi			1			1	1				1	1		1		1		1	
19	Radhi			0			1		1			1		1		1		1		1
20	Radhi			0				1				1	1		1		1		1	
21	Radhi			1			1	1				1	1		1		1		1	
22	Radhi			1			1	1				1	1		1		1		1	
23	Radhi			0			1	1				1	1		1		1		1	
24	Radhi			1				1				1	1		1		1		1	
25	Radhi			0				1					1		1		1		1	
26	Radhi			0											1		1		1	
27	Radhi			0											1		1		1	
28	Radhi			0			1	1				1	1		1		1		1	
29	Radhi			1											1		1		1	
30	Radhi			1				1					1		1		1		1	
31	Radhi			1											1		1		1	
32	Galing			0				1					1		1		1		1	
33	Galing			1			1					1			1		1		1	
34	Galing			1			1					1			1		1		1	
35	Galing			1			1	1				1	1		1		1		1	
36	Galing			1				1					1		1		1		1	
37	Galing			0											1		1		1	
38	Galing			0				1					1		1		1		1	
39	Galing			0			1	1				1	1		1		1		1	

HH No.	Village / Gewog	E25b) number of jobs lost through mini hydro project / electrification	27a: Do family members fear theft, crime, wild animals during the night	27b: Does good outdoor lighting make a difference?	E28a) Evening activities today						E28b) Change since electricity has become available?	E29: Female family members have enough spare time and time for themselves	E30: What is most attractive about electricity								
					go to bed early	discussions / worshipping with family members, neighbours	reading	TV, radio	housework	handicraft for sale, presents, gifts			it makes information available through radio, TV	it is labour saving	it makes the days longer / more productive through improved lighting	it improves safety	it provides attractive entertainment through radio, cassette, TV	it makes us feel part of the modern world	it brings modern communication services		
1	Radhi			1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Radhi			1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	Radhi			1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	Radhi			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	Galing			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	Galing			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	Galing			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	Galing			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36	Galing			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	Galing			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	Galing			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	Galing			1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

HH No.	Village / Gewog	y?				E31a) What is attractive about radio and TV				E31b) Some radio / TV broadcasts have been objectionable (yes=1, no=0)	E33: Why are non-electrified hh not connected?				E35: Process for getting an electricity connection was a traditional process of decision making	E36: Satisfied with the way they were asked to make a sacrifice in terms of land, etc. Or a contribution to the project
		it improves health conditions in the house (smoke)	it brings about better education services	it improves health services in the area	it provides job opportunities through electric machinery	news services	good entertainment	good for education	it makes us feel part of the modern world		project parameter excludes our house	too expensive	not interested in the services	too dangerous		
1	Radhi	1	1	1	1	1		1	1	0						
2	Radhi	1	1	1	1	1		1	1							
3	Radhi	1	1	1	1	1		1	1							
4	Radhi	1	1	1	1	1	1	1	1							
5	Radhi	1	1	1	1	1	1	1	1							
6	Radhi	1	1	1	1	1	1	1	1							
7	Radhi	1	1	1	1	1	1	1	1							
8	Radhi	1	1	1	1	1		1	1							
9	Radhi	1	1	1	1	1	1	1	1							
10	Radhi	1	1	1	1	1		1	1							
11	Radhi	1	1	1	1	1	1	1	1							
12	Radhi	1	1	1	1	1	1	1	1							
13	Radhi	1	1	1	1	1		1	1							
14	Radhi	1	1	1	1	1	1	1	1							
15	Radhi	1	1	1	1	1	1	1	1							
16	Radhi	1	1	1	1	1	1	1	1							
17	Radhi	1	1	1	1	1	1	1	1							
18	Radhi	1	1	1	1	1	1	1	1							
19	Radhi	1	1	1	1	1	1	1	1							
20	Radhi	1	1	1	1	1	1	1	1							
21	Radhi	1	1	1	1	1	1	1	1							
22	Radhi	1	1	1	1	1	1	1	1							
23	Radhi	1	1	1	1	1	1	1	1							
24	Radhi	1	1	1	1	1	1	1	1							
25	Radhi	1		1	1	1	1	1	1							
26	Radhi		1	1	1	1	1	1	1							
27	Radhi															
28	Radhi	1	1	1	1	1	1	1	1							
29	Radhi	1	1	1	1	1	1	1	1							
30	Radhi	1	1	1	1	1	1	1	1							
31	Radhi															
32	Galing	1	1	1	1	1	1	1	1							
33	Galing	1	1	1	1	1	1	1	1							
34	Galing	1	1	1	1	1	1	1	1							
35	Galing	1	1	1	1	1	1	1	1							
36	Galing															
37	Galing	1	1	1	1	1	1	1	1							
38	Galing	1	1	1	1	1	1	1	1							
39	Galing	1	1	1	1	1	1	1	1							

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40	Galing	2	3	1	6	1		1		0	2	2	2	2	1	1	2	0	0	2	2
41	Galing	1	2	7	10	1	1			417	2	2	1	2	2	2	2	1	0	2	2
42	Galing	2	3	3	8	1	1			250	2	2	2	1	2	2	2	1	0	2	2
43	Galing	3	1	3	7	1	1			2417	2	2	1	0	2	2	2	2	1	2	2
44	Shongphu	3	9	1	13	1		1		2000	0	1	2	1	1	2	2	0	0	0	1
45	Shongphu	7	3	3	13	1		1		667	2	2	0	1	2	2	1	2	0	2	2
46	Shongphu	3	1	0	4	1		1		583	1	2	2	0	1	2	2	1	0	1	2
47	Shongphu	2	2	3	7	1				250	0	1	1	2	1	1	0	0	0	0	1
48	Shongphu	2	3	6	11	1				200	2	2	2	2	2	2	2	1	1	2	2
49	Shongphu	7	1	0	8	1	1	1		125	2	2	2	2	1	2	2	1	1	2	2
50	Shongphu	3	2	3	8	1				633	2	2	2	1	2	2	2	1	1	2	2
51	Shongphu	4	3	5	12	1		1		500	2	2	2	1	0	2	2	1	1	2	2
52	Shongphu	4	3	6	13	1				1254	2	2	1	1	2	2	2	1	1	2	2
53	Shongphu	1	2	7	10	1				250	2	2	1	1	2	2	2	2	1	2	2
54	Shongphu	3	1	2	6	1				750	2	2	1	1	2	2	2	1	0	2	2
55	Shongphu	3	4	3	10	1		1		1250	2	2	1	2	2	2	2	2	1	2	2
56	Shongphu	3	2	3	8	1		1		1025	2	2	1	2	2	2	1	2	1	2	2
57	Shongphu	3	3	4	10	1				1208	2	2	0	1	2	2	2	1	1	2	2
58	Shongphu	2	3	2	7	1		1		1742	2	2	1	2	2	2	2	2	1	2	2
59	Shongphu	3	2	4	9	1				167	2	1	1	1	1	2	0	1	0	2	1
60	Shongphu	1	2	5	8	1				417	0	1	1	2	1	1	1	0	0	0	1
61	Phongmey	2	1	2	5	1					2	2	1	2	2	2	2	2	1	2	2
62	Phongmey	1	2	2	5	1					2	1	2	2	2	1	2	2	1	2	1
63	Phongmey	1	3	3	7	1					2	1	1	1	2	2	2	1	1	2	1
64	Phongmey	1	3	2	6	1					2	1	1	1	1	2	2	2	1	2	1
65	Phongmey	3	2	3	8	1					2	2	1	0	1	1	2	2	1	2	2
66	Phongmey	1	1	3	5	1			1		0	2	2	2	2	2	2	2	2	2	2
67	Phongmey	2	2	3	7		1			210										1	2
68	Phongmey	2	3	1	6	1				57	2	2	2	2	2	2	2	2	2	2	2
69	Phongmey	1	1	4	6	1				58	2	2	2	2	2	2	2	2	2	2	2
70	Phongmey	1	2	4	7			1		425	2	2	1	0	2	2	2	2	2	2	1
71	Phongmey	1	1		2			1		500	0	2	2	2	2	2	2	2	2	0	2
72	Phongmey	1	1	5	7			1		333	2	2	2	2	2	2	2	2	2	2	2
73	Phongmey	1	3	1	5	1				83	2	2	2	2	2	2	2	2	1	2	2
74	Phongmey	6	1	0	7	1				50	2	0	2	2	3	0	3	2	2	2	2
75	Phongmey	2	3	1	6	1				75	2	2	2	2	2	2	2	2	1	2	2
76	Phongmey	2	2	0	4		1			167	0	2	1	2	0	0	2	0	1	0	2
77	Phongmey	3	4	1	8	1					0	1	2	2	0	0	2	0	1	0	1
78	Phongmey	4	4	1	9	1					0	0	0	0	0	0	0	0	0	2	2
79	Phongmey	1	2	0	3	1					0	0	0	0	0	0	0	0	0	1	2
80	Phongmey	2	4	2	8	1					2	2	2	2	0	0	2	0	0	0	0
81	Phongmey	2	2	2	6	1					0	2	2	2	0	0	2	0	2	0	0
82	Bidung	1	2	0	3	1		1		180	2	1	2	2	1	2	2	2	1	2	1
83	Bidung	1	1	3	5	1				1375	2	2	1	0	2	2	2	2	1	0	0
84	Bidung	3	3	3	9	1		1		1000	2	2	1	2	0	2	2	2	1	0	0
85	Bidung	3	1	2	6	1				917	2	2	2	0	2	2	2	2	1	0	0
86	Bidung	3	2	5	10	1		1		5000	2	1	1	0	2	2	2	2	1	0	0
87	Bidung	2	3	2	7	1				2767	2	2	1	0	2	2	1	2	1	0	0
88	Bidung	3	1	2	6	1		1		1150	2	1	1	0	2	2	2	2	1	0	0
89	Bidung	4	2	4	10	1		1		6533	2	1	1	0	2	2	2	2	1	0	0
90	Bidung	1	2	4	7	1		1			2	2	1	0	2	2	2	0	0	2	2
91	Bidung	1	2	0	3	1					0	0	0	0	0	0	0	0	0	2	2
92	Bidung	4	1	1	6	1		1			2	2	2	0	1	2	2	0	0	2	2
93	Bidung	1	4	2	7	1		1		60	2	2	2	0	2	2	2	0	1	2	2
94	Bidung	5	1	2	8	1		1		458	2	2	2	0	0	2	2	0	0	2	2
95	Bidung	4	3	3	10	1		1		4300	2	2	1	0	2	2	1	0	1	0	0

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40	Galing	2	2	1	1	2	0	0	1	35	140	1	1	1	1	d				1
41	Galing	1	2	2	2	2	1	0	1	35	100					c	25			1
42	Galing	2	1	2	2	2	1	0	1	30	100			1	1	d	35			1
43	Galing	1	0	2	2	2	2	1	1	35	140	1	1			d	250			1
44	Shongphu	2	1	1	1	2	0	0	1	35	100		1	1	1	d	60	1		1
45	Shongphu	0	1	2	2	1	2	0	1	35	140			1	1	d	60			1
46	Shongphu	2	0	1	2	2	1	0	1	35	100			1	1	d	40			1
47	Shongphu	1	2	1	1	1	0	0	1	35	100			1	1	d	50			1
48	Shongphu	2	2	2	2	2	1	1	1	35	100	1	1			d	35	1		1
49	Shongphu	2	1	2	2	1	1	1	1	35	60	1	1			d	35			1
50	Shongphu	2	1	2	2	2	1	1	1	35	140	1	1	1	1	d	35		1	1
51	Shongphu	2	1	2	2	2	1	1	1	45	100	1	1	1	1	c	45			1
52	Shongphu	1	1	2	2	2	1	1	1	35	100			1	1	c	350			1
53	Shongphu	1	1	2	2	2	2	1	1	35	100			1	1	d	255			1
54	Shongphu	1	1	2	2	2	2	1	1	35	140			1	1	d	155		1	1
55	Shongphu	1	2	2	2	2	2	1	1	75	100			1	1	d	185		1	1
56	Shongphu	1	2	2	2	1	2	1	1	35	140	1	1			d	35	1		1
57	Shongphu	0	1	2	2	2	1	1	1	35	100			1	1	d	165			1
58	Shongphu	1	2	2	2	2	2	1	1	35	140			1	1	d	205			1
59	Shongphu	1	1	1	2	0	1	0	1	35	60	1	1	1	1	d	70			1
60	Shongphu	1	2	1	1	1	0	0	1	139	100			1	1	d	150			1
61	Phongmey	1	2	2	2	2	2	1	0	0	0			1	1	c	70			1
62	Phongmey	2	2	2	1	2	2	1	0	0	0			1	1	c	80			1
63	Phongmey	1	1	2	2	2	1	1	0	0	0			1	1	c	60			1
64	Phongmey	1	1	1	2	2	2	1	0	0	0			1	1	c	90			1
65	Phongmey	1	0	1	1	2	2	1	0	0	0			1	1	c	55			1
66	Phongmey	2	2	2	2	2	2	2	0	0	0			1	1	b	30	0.6	1	1
67	Phongmey	2	1	1	2	2	2	0	0	0	0			1	1	b	70	1		1
68	Phongmey	2	2	2	2	2	2	2	0	0	0			1	1	b	30	0.5		1
69	Phongmey	2	2	2	2	2	2	2	0	0	0			1	1	b	60	1		1
70	Phongmey	1	1	2	2	2	0	1	0	0	0	1	1			b	180	2.571	1	1
71	Phongmey	2	2	2	2	2	2	2	0	0	0			1	1	b	20	1		1
72	Phongmey	2	2	2	1	2	1	0	0	0	0	1	1			b	100	1.429	1	1
73	Phongmey	2	2	2	2	2	2	1	0	0	0			1	1	b	36	0.72		1
74	Phongmey	1	0	2	1	2	1	1	0	0	0			1	1	b	60	0.857		1
75	Phongmey	0	2	1	2	2	2	0	0	0	0	1	1			b	115	1.917	1	1
76	Phongmey	1	2	0	0	2	0	1	0	0	0			1	1	b	90	2.25	1	1
77	Phongmey	2	2	0	0	2	0	1	0	0	0			1	1	b	60	0.75		1
78	Phongmey	2	2	0	0	2	0	1	0	0	0			1	1	b	50	0.556		1
79	Phongmey	2	0	0	0	2	0	0	0	0	0			1	1	b	40	1.333		1
80	Phongmey	0	0	0	0	0	0	0	0	0	0			1	1	b	40	0.5		1
81	Phongmey	0	0	0	0	0	0	0	0	0	0			1	1	b	60	1		1
82	Bidung	0	0	2	1	2	2	0	1	35	100			1	1	d	200		1	1
83	Bidung	0	0	0	0	0	0	0	1	40	140	1	1			d	58			1
84	Bidung	0	0	0	0	0	0	0	1	40	100	1	1	1	1	d	52			1
85	Bidung	0	0	0	0	0	0	0	1	40	100	1	1			d	70			1
86	Bidung	0	0	0	0	0	0	0	1	42	140	1	1			d	100			1
87	Bidung	0	0	0	0	0	0	0	1	75	140			1	1	d				1
88	Bidung	0	0	0	0	0	0	0	1	45	100			1	1	d	47			1
89	Bidung	0	0	0	0	0	0	0	1	75	100	1	1			d	50	1		1
90	Bidung	1	0	2	2	2	0	0	1	35	100			1	1	d	40			1
91	Bidung	1	0	1	0	2	0	0	1	10	60			1	1	d	15			1
92	Bidung	2	0	1	2	2	0	0	1	35	100			1	1	d	40			1
93	Bidung	2	0	2	1	2	0	1	1	35	60			1	1	d	40			1
94	Bidung	2	0	0	2	2	0	0	1	35	100			1	1	d	40			1
95	Bidung	0	0	0	0	0	0	0	1	70	140			1	1	c	45			1

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40	Galing			c			1			c			1			c			1			c
41	Galing			c			1			c			1			c			1			c
42	Galing			c			1			c			1			c			1			c
43	Galing			c			1			c			1			c			1			c
44	Shongphu		1	a			1			a	1		1			a	1		1			a
45	Shongphu			c			1			c			1			c			1			c
46	Shongphu			c			1			c			1			c			1			c
47	Shongphu			c			1			c			1			c			1			c
48	Shongphu		1	a			1			a	1		1			a	1		1			a
49	Shongphu			c			1			c			1			c			1			c
50	Shongphu			c		1	1			c		1	1			c			1			c
51	Shongphu			c			1			c			1			c			1			c
52	Shongphu			c			1			c			1			c			1			c
53	Shongphu			c			1			c			1			c			1			c
54	Shongphu			c		1	1			c		1	1			c			1			c
55	Shongphu			c		1	1			c		1	1			c			1			c
56	Shongphu		1	c			1			c	1		1			c			1			c
57	Shongphu			c			1			c			1			c			1			c
58	Shongphu			c			1			c			1			c			1			c
59	Shongphu			c			1			c			1			c			1			c
60	Shongphu			c			1			c			1			c			1			c
61	Phongmey			c			1			c			1			c			1			c
62	Phongmey			c			1			c			1			c			1			c
63	Phongmey			c			1			c			1			c			1			c
64	Phongmey			c			1			c			1			c			1			c
65	Phongmey			c			1			c			1			c			1			c
66	Phongmey			c		1	1			c		1	1			c			1			c
67	Phongmey			c			1			c			1			c			1			c
68	Phongmey			c			1			c			1			c			1			c
69	Phongmey			c			1			c			1			c			1			c
70	Phongmey			c		1	1			c		1	1			c			1			c
71	Phongmey			c			1			c			1			c			1			c
72	Phongmey			c		1	1			c		1	1			c			1			c
73	Phongmey			c			1			c			1			c			1			c
74	Phongmey			c			1			c			1			c			1			c
75	Phongmey			c		1	1			c		1	1			c			1			c
76	Phongmey			b		1	1			b		1	1			b			1			b
77	Phongmey			c		1	1			c			1			c			1			c
78	Phongmey			c			1			c			1			c			1			c
79	Phongmey			c			1			c			1			c			1			c
80	Phongmey			c			1			c			1			c			1			c
81	Phongmey			c			1			c			1			c			1			c
82	Bidung		1	c			1			c	1		1			c			1			c
83	Bidung			c			1			c			1			c			1			c
84	Bidung			c			1			c			1			c			1			c
85	Bidung			c			1			c			1			c			1			c
86	Bidung			c			1			c			1			c			1			c
87	Bidung			c			1			c			1			c			1			c
88	Bidung			c			1			c			1			c			1			c
89	Bidung			c		1	1			c	1		1			c			1			a
90	Bidung			c			1			c			1			c			1			c
91	Bidung			c			1			c			1			c			1			c
92	Bidung			c			1			c			1			c			1			c
93	Bidung			c			1			c			1			c			1			c
94	Bidung			c			1			c			1			c			1			c
95	Bidung			c			1			c			1			c			1			c

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40	Galing		1			c	1		a	1	1	1	1	a					1		
41	Galing		1			c	1	1	a	1	1			a					1		
42	Galing		1			c	1	1	a	1		1		a					1		
43	Galing		1			c	1		a	1	1	1	1	a					1		
44	Shongphu		1	1	1	c	1		a	1				a						1	
45	Shongphu		1	1		c		1	b	1	1			a						1	
46	Shongphu		1	1		c	1		a	1		1		a					1		
47	Shongphu		1			c	1		a	1	1			a					1		
48	Shongphu		1			c	1		a	1	1			a						1	
49	Shongphu		1			c	1		a	1	1	1	1	a						1	
50	Shongphu		1			c	1		a	1	1	1	1	a						1	
51	Shongphu	1	1			c	1		a	1	1	1	1	a						1	
52	Shongphu		1			c	1		a	1	1	1	1	a			1				
53	Shongphu		1	1		c	1		a	1	1	1	1	a						1	
54	Shongphu		1	1		c	1		a	1	1	1	1	a						1	
55	Shongphu		1	1		c	1		a	1	1	1	1	a					1		
56	Shongphu		1			c	1		a	1	1	1	1	a					1		
57	Shongphu		1			c	1		a	1	1	1	1	a		1					
58	Shongphu		1			c	1		a	1	1	1	1	a					1		
59	Shongphu		1	1		c	1	1	a	1	1	1	1	a						1	
60	Shongphu		1	1		c	1		a	1	1	1	1	a					1		
61	Phongmey		1			c	1		a	1	1	1	1	a					1		
62	Phongmey		1			c	1		a	1	1	1	1	b					1		
63	Phongmey		1			c	1		a	1	1	1	1	a					1		
64	Phongmey		1			c	1		a	1	1	1	1	b					1		
65	Phongmey		1			c	1		a	1	1	1	1	a					1		
66	Phongmey		1			c	1		a	1	1	1	1	a					1		
67	Phongmey		1			c	1		a	1	1			a					1		
68	Phongmey		1			c	1		a	1	1			b					1		
69	Phongmey		1			c	1		a	1	1	1		a					1		
70	Phongmey		1			c	1	1	b	1	1		1	b					1		
71	Phongmey		1			c	1		a	1	1			a					1		
72	Phongmey		1			c	1		a	1	1	1	1	d					1		
73	Phongmey		1			c	1		a	1	1	1	1	b					1		
74	Phongmey		1			c	1		a	1	1			a					1		
75	Phongmey	1	1			c	1		a	1	1	1	1	b					1		
76	Phongmey		1			c	1		a	1	1	1	1	a					1		
77	Phongmey		1			c		1	b	1	1	1	1	a					1		
78	Phongmey		1			c	1		a	1	1	1	1	a					1		
79	Phongmey		1			c		1	b	0	0	0	0						1		
80	Phongmey		1			c	1		a	1	1	1	1	a					1		
81	Phongmey		1			c	1		a	1	1	1	1	a					1		
82	Bidung		1			c	1		a	1	1			b						1	
83	Bidung		1			c	1		a	1	1			a					1		
84	Bidung		1			c	1		a	1	1			a					1		
85	Bidung		1			c	1		a	1				a					1		
86	Bidung		1			c	1		a	1				a					1		
87	Bidung		1			c	1		a	1	1			a					1		
88	Bidung		1			c	1		a	1	1			a					1		
89	Bidung		1	1		d	1		a	1	1			a						1	
90	Bidung		1			c	1		a	1	1			a					1		
91	Bidung		1			c	1		a	1	1			a					1		
92	Bidung		1			c	1		a	1	1		1	a					1		
93	Bidung		1			c	1		a	1	1			a					1		
94	Bidung		1			c	1		a	1			1	a					1		
95	Bidung		1			c	1		a	1	1			a					1		

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40	Galing	1			1					1				1					1
41	Galing	0			1		1			1		1		1					1
42	Galing	1			1		1			1		1		1					1
43	Galing	1			1		1			1		1		1					1
44	Shongphu	0			1		1			1		1		1					1
45	Shongphu	1												1					1
46	Shongphu	0			1		1			1		1		1					1
47	Shongphu	0			1		1			1		1		1					1
48	Shongphu													1					1
49	Shongphu	0			1		1			1		1		1					1
50	Shongphu				1		1			1		1			1				1
51	Shongphu													1					1
52	Shongphu														1				1
53	Shongphu													1					1
54	Shongphu				1		1			1		1							1
55	Shongphu				1		1			1		1							1
56	Shongphu				1		1			1		1							1
57	Shongphu													1					1
58	Shongphu				1		1			1		1							1
59	Shongphu	1			1		1			1		1							1
60	Shongphu	0			1		1			1		1							1
61	Phongmey																		
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81	Phongmey																		
82	Bidung	1					1							1					1
83	Bidung	1			1		1			1		1		1					1
84	Bidung	1			1		1			1		1		1					1
85	Bidung	1			1		1			1		1		1					1
86	Bidung	1			1		1			1		1		1					1
87	Bidung	1			1		1			1		1		1					1
88	Bidung	1			1		1			1		1		1					1
89	Bidung	1			1		1			1		1		1					1
90	Bidung	-1			1		1			1		1		1					1
91	Bidung	0			1		1			1		1		1					1
92	Bidung	0			1		1			1		1		1					1
93	Bidung	0			1		1			1		1		1					1
94	Bidung	1			1		1			1		1		1					1
95	Bidung	-1			1		1			1		1		1					1

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40	Galing	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	Galing	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	Galing	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	Galing	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Shongphu	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
45	Shongphu	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
46	Shongphu	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
47	Shongphu	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
48	Shongphu	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
49	Shongphu	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
50	Shongphu	1																	
51	Shongphu	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
52	Shongphu	1					1	1	1	1	1	1	1	1	1	1	1	1	1
53	Shongphu	1					1	1	1	1	1	1	1	1	1	1	1	1	1
54	Shongphu	1					1	1	1	1	1	1	1	1	1	1	1	1	1
55	Shongphu	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
56	Shongphu	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
57	Shongphu	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
58	Shongphu	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
59	Shongphu	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
60	Shongphu	1					1	1	1	1	1	1	1	1	1	1	1	1	1
61	Phongmey																		
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82	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
83	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
84	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
85	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
86	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
87	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
88	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
89	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
90	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
91	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
92	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
93	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
94	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1
95	Bidung	1				1	1	1	1	1	1	1	1	1	1	1	1	1	1

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40	Galing	1	1	1	1	1	1	1	1										
41	Galing	1	1	1	1	1	1	1	1										
42	Galing	1	1	1	1	1	1	1	1										
43	Galing	1	1	1	1	1	1	1	1										
44	Shongphu	1	1	1	1	1	1	1	1										
45	Shongphu	1	1	1	1	1	1	1	1										
46	Shongphu	1	1	1	1	1	1	1	1										
47	Shongphu	1	1	1	1														
48	Shongphu	1	1	1	1	1	1	1	1										
49	Shongphu	1	1	1	1	1	1	1	1										
50	Shongphu																		
51	Shongphu	1	1	1		1	1	1	1										
52	Shongphu			1															
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54	Shongphu	1	1	1		1	1	1	1										
55	Shongphu	1	1	1	1	1	1	1	1										
56	Shongphu	1	1	1		1	1	1	1										
57	Shongphu	1	1	1	1	1	1	1	1										
58	Shongphu	1	1	1	1	1	1	1	1										
59	Shongphu	1	1	1	1	1	1	1	1										
60	Shongphu	1	1	1	1	1	1	1	1										
61	Phongmey																		
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81	Phongmey																		
82	Bidung	1	1	1	1	1	1	1	1										
83	Bidung	1	1	1	1	1	1	1	1										
84	Bidung																		
85	Bidung	1	1	1	1	1	1	1	1										
86	Bidung	1	1	1	1	1	1	1	1										
87	Bidung	1	1	1	1	1	1	1	1										
88	Bidung	1	1	1	1	1	1	1	1										
89	Bidung	1	1	1	1	1	1	1	1										
90	Bidung		1	1	1			1	1										
91	Bidung	1	1	1	1	1	1	1	1										
92	Bidung	1	1	1	1	1	1	1	1										
93	Bidung	1	1	1	1	1	1	1	1										
94	Bidung	1	1	1	1	1	1	1	1										
95	Bidung	1	1	1	1	1	1	1	1										

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96	Bidung	1	3	1	5	1		1		150	2	2	1	1	1	2	1	0	0	0	0
97	Bidung	3	1	2	6	1				642	2	2	1	1	1	1	1	0	0	0	0
98	Bidung	2	1	3	6	1		1		292	2	2	1	1	1	2	1	0	0	0	2
99	Bidung	1	4	1	6	1				708	2	2	1	1	1	2	1	0	0	0	2
100	Bidung	2	3	4	9	1		1		517	2	2	1	1	1	2	1	0	0	0	0
101	Bidung	3	3	3	9	1		1		833	2	2	1	0	2	2	1	1	0	0	0
102	Bidung	1	2	3	6	1				200	2	2	1	2	2	2	0	0	0	0	2
103	Bartsham	2	1	2	5	1				1400	2	2	2	1	1	1	1	0	0	0	2
104	Bartsham	2	1	5	8	1				267	1	2	2	1	0	1	2	0	0	2	1
105	Bartsham	1	1	2	4	1				833	2	2	2	1	1	1	2	0	0	2	2
106	Bartsham	2	1	3	6	1				621	1	1	0	2	1	2	1	0	0	2	1
107	Bidung	1	1	2	4	1				417	0	0	0	0	0	0	0	0	0	0	1
108	Bidung	3	2	3	8	1				683	2	2	1	2	1	2	1	0	0	2	2
109	Bidung	2	1	3	6	1				175	1	1	2	1	0	0	2	0	0	2	1
110	Bartsham	3	1	3	7	1				1667	2	2	2	1	1	0	2	0	0	2	2
111	Bidung	4	2	2	8	1		1		550	2	1	2	2	2	2	2	2	0	2	1
112	Bidung	1	2	3	6	1			1	350	2	1	1	2	2	2	2	2	1	2	2
113	Bidung	3	6	3	12	1		1		3100	2	2	1	2	2	2	2	2	1	2	2
114	Bidung	6	1	1	8			1		2800	2	0	0	0	0	0	0	2	0	0	0
115	Bidung	4	2	3	9	1		1		797	2	2	2	2	2	2	2	2	1	2	2
116	Bidung	1	3	2	6	1					2	1	1	1	2	2	1	2	1	2	0
117	Bidung	1	2	6	9	1				200	2	2	1	1	1	2	2	1	2	1	1
118	Bidung	3	2	1	6	1		1		329	2	1	1	1	2	2	2	2	1	2	0
119	Bidung	1	1	3	5	1				600	2	1	1	2	2	2	2	2	1	2	0
120	Bidung	1	2	2	5	1		1		2240	2	1	1	2	2	2	2	2	1	2	2
121	Samkhar	1	1	1	3	1				458	2	1	2	1	2	2	2	2	1	2	1
122	Samkhar	3	3	2	8	1		1		7800	2	2	2	0	2	2	2	2	2	2	2
123	Samkhar	4	2	1	7	1		1		4917	2	1	2	1	2	2	2	2	1	2	1
124	Samkhar	3	2	0	5	1					2	2	1	2	2	1	2	1	0	2	2
125	Samkhar	3	5	2	10	1		1		5700	2	1	1	1	2	2	1	1	0	2	1
126	Samkhar	3	2	2	7	1				1280	0	0	0	0	0	0	0	0	0	2	2
127	Samkhar	1	1	4	6	1				920	0	0	0	0	0	0	0	0	0	2	2
128	Samkhar	1	3	3	7	1				2700	2	2	2	0	2	2	1	2	0	0	0
129	Samkhar	3	5	12	20	1				658	2	2	2	1	2	2	2	2	0	0	0
130	Samkhar	3	5	0	8	1		1		2200	2	2	1	0	2	2	2	2	0	0	0
131	Samkhar	3	3	3	9	1		1		200	0	0	0	0	0	0	0	0	0	2	2
132	Samkhar	4	5	3	12	1		1		1600	2	2	1	0	2	2	2	2	0	0	0
133	Samkhar	2	2	2	6	1		1		2000	2	2	2	1	2	1	2	1	0	0	0
134	Samkhar	2	1	0	3	1				1192	2	2	1	1	2	2	2	2	0	2	2
135	Samkhar	0	1	2	3	1		1		600	2	2	1	0	2	2	2	2	0	0	0
136	Samkhar	3	1	1	5	1				1005	2	2	0	1	2	2	2	2	0	2	2
137	Samkhar	1	1	2	4	1				1300	2	2	2	0	2	2	2	2	0	0	0
138	Samkhar	3	2	3	8	1				250	2	2	1	1	2	2	2	1	0	2	2
139	Samkhar	1	2	3	6	1				775	2	2	1	0	2	2	2	0	0	0	0
140	Samkhar	1	2	1	4	1		1		1000	2	2	1	1	2	2	2	2	1	0	0
141	Samkhar	4	1	2	7	1		1		1360	2	2	1	1	2	1	2	0	0	0	0
142	Samkhar	1	1	3	5	1				2240	2	1	1	0	0	0	1	0	0	0	0
143	Samkhar	1	2	1	4	1				267	0	0	0	0	0	0	0	0	0	2	2
144	Samkhar	2	5	2	9	1				917	0	0	0	0	0	0	0	0	0	2	1
145	Samkhar	1	2	3	6	1		1		4200	0	0	0	0	0	0	0	0	0	2	2
146	Samkhar	0	3	3	6			1		2100	0	0	0	0	0	0	0	0	0	1	1
147	Samkhar	2	2	1	5	1		1			2	2	2	2	2	2	2	2	2	0	0
148	Samkhar	2	4	1	7	1					2	2	2	0	2	2	2	1	0	0	0
149	Samkhar	2	3	0	5	1				92	2	2	2	2	2	2	0	0	0	0	0
150	Samkhar	4	2	1	7	1					2	2	2	2	2	2	2	2	2	0	0
151	Samkhar	1	1	2	4	1				317	2	2	2	2	0	1	0	0	2	0	0

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96	Bidung	0	0	0	0	0	0	0	1	35	140		1	1	1		d	30			1	
97	Bidung	0	0	0	0	0	0	0	1	35	140		1	1	1		d	50			1	
98	Bidung	1	1	1	2	0	0	0	1	35	140	1	1	1	1		d	40			1	
99	Bidung	0	2	2	2	1	0	0	1	48	140		1	1	1		b	25			1	
100	Bidung	0	0	0	0	0	0	0	1	70	140	1	1	1	1		b	50			1	
101	Bidung	0	0	0	0	0	0	0	1	600	140	1	1	1	1		c	100			1	
102	Bidung	1	2	2	2	0	0	0	1	350	140		1	1	1		b	30	1		1	
103	Bartsham	2	0	1	1	1	0	2	1	35	60				1		d	35			1	
104	Bartsham	2	0	0	1	2	0	0	1	35	60				1		d	35			1	
105	Bartsham	2	0	1	1	2	0	0	1	35	60				1		d	35			1	
106	Bartsham	0	0	2	2	2	0	0	1	35	60				1		d	35			1	
107	Bidung	2	2	1	0	2	0	0	1	35	260				1		d	35			1	
108	Bidung	1	0	1	2	1	0	1	1	35	60				1		d	35			1	
109	Bidung	2	0	0	0	2	0	0	1	35	60				1		d	35			1	
110	Bartsham	2	0	1	0	2	0	2	1	35	60				1		d	35			1	
111	Bidung	2	2	2	2	1	2	0	1	100	140		1	1	1		d	200			1	
112	Bidung	2	1	2	2	2	2	0	1	35	60		1	1	1		c	150			1	
113	Bidung	1	1	2	2	2	2	0	1	35	60		1	1	1	1	1	c	100			1
114	Bidung	0	0	0	0	0	0	0	1	35	60	1	1	1	1		d	45			1	
115	Bidung	2	2	2	2	2	2	0	1	35	160		1	1	1		d	60			1	
116	Bidung	2	2	2	2	0	2	1	1	35	100		1	1	1		d	350			1	
117	Bidung	2	0	2	2	1	2	0	1	25	60		1	1	1		c	300			1	
118	Bidung	1	0	2	2	1	2	0	1	35	140		1	1	1		d	85			1	
119	Bidung	1	2	2	2	2	2	0	1	35	100		1	1	1		d	80			1	
120	Bidung	2	0	2	2	2	2	0	1	35	140		1	1	1		d	250			1	
121	Samkhar	2	1	2	2	2	2	1	1	70	100	1	1	1	1		d	85	1	1	1	
122	Samkhar	2	0	2	2	2	2	2	1	70	100	1	1	1	1		d	80	1	1	1	
123	Samkhar	2	1	2	2	2	2	1	1	50	100	1	1	1	1		d	150	1	1	1	
124	Samkhar	1	2	2	1	2	1	0	1	100	100	1	1	1	1		d	500	1	1	1	
125	Samkhar	1	1	2	2	1	1	0	1	100	60	1	1	1	1		d	200	1	1	1	
126	Samkhar	1	1	2	2	1	2	0	1	5	60		1	1	1		d	17			1	
127	Samkhar	2	2	1	1	2	2	2	1	10	100		1	1	1		d	22			1	
128	Samkhar	0	0	0	0	0	0	0	1	10	60		1	1	1		d	22			1	
129	Samkhar	0	0	0	0	0	0	0	1	15	60		1	1	1		d	27			1	
130	Samkhar	0	0	0	0	0	0	0	1	15	40		1	1	1		d	27			1	
131	Samkhar	1	0	2	2	2	2	0	1	15	60		1	1	1		d	27			1	
132	Samkhar	0	0	0	0	0	0	0	1	15	60		1	1	1		d	27		1	1	
133	Samkhar	0	0	0	0	0	0	0	1	15	60		1	1	1	1	d	35			1	
134	Samkhar	1	1	2	2	2	2	0	1	20	100	1	1	1	1		d	55			1	
135	Samkhar	0	0	0	0	0	0	0	1	5	100		1	1	1		d	15			1	
136	Samkhar	0	1	2	2	2	2	1	1	25	100	1	1	1	1		d	100	1		1	
137	Samkhar	0	0	0	0	0	0	0	1	10	60		1	1	1		d	20			1	
138	Samkhar	1	1	2	2	2	1	0	1	15	60		1	1	1		d	20			1	
139	Samkhar	0	0	0	0	0	0	0	1	20	100		1	1	1		d	42			1	
140	Samkhar	0	0	0	0	0	0	0	1	15	100		1	1	1		d	25			1	
141	Samkhar	0	0	0	0	0	0	0	1	15	100	1	1	1	1		d	26			1	
142	Samkhar	0	0	0	0	0	0	0	1	5	100		1	1	1		d	10			1	
143	Samkhar	2	1	2	2	1	1	0	1	15	100		1	1	1		d	25			1	
144	Samkhar	2	2	2	1	2	1	1	1	20	140		1	1	1		d	30	1		1	
145	Samkhar	1	2	2	1	1	0	0	1	20	100		1	1	1		d	30			1	
146	Samkhar	2	2	2	2	2	2	0	1	15	60			1	1		d	15			1	
147	Samkhar	0	0	0	0	0	0	0	1	20	60		1	1	1		d	20			1	
148	Samkhar	0	0	0	0	0	0	0	1	10	60		1	1	1		d	10			1	
149	Samkhar	0	0	0	0	0	0	0	1	15	60		1	1	1		d	15			1	
150	Samkhar	0	0	0	0	0	0	0	1	15	60		1	1	1		b	15			1	
151	Samkhar	0	0	0	0	0	0	0	1	25	60			1	1		c	25			1	

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96	Bidung		1		c	1		a	1	1			a				1		
97	Bidung		1	1	c	1		a	1	1		1	a				1		
98	Bidung		1		c	1		a	1	1	1		a				1		
99	Bidung		1		c	1		a	1			1	a				1		
100	Bidung		1		c	1		a	1	1			b				1		
101	Bidung		1		c	1		a	1	1			a					1	
102	Bidung		1		c	1		a	1	1			a				1		
103	Bartsham		1		c	1		a	1				a				1		
104	Bartsham		1		c	1		a	1				a				1		
105	Bartsham		1		c	1		a	1				a					1	
106	Bartsham		1		c	1		a	1		1		a				1		
107	Bidung		1		c	1		a	1	1			a				1		
108	Bidung		1		c	1		a	1				a					1	
109	Bidung		1		c	1		a	1	1			a					1	
110	Bartsham		1		c	1		a	1				a				1		
111	Bidung		1		c	1		a	1	1			a				1		
112	Bidung		1		c	1		a	1	1			a				1		
113	Bidung		1		c	1		a	1	1			a				1		
114	Bidung		1		c	1		a	1		1		c				1		
115	Bidung		1		c	1		a	1	1			a				1		
116	Bidung		1		c	1		a	1				a				1		
117	Bidung		1		c	1		a	1				a				1		
118	Bidung		1		c	1		a	1				a				1		
119	Bidung		1		c	1		a	1	1			a				1		
120	Bidung		1		c	1		a	1				a				1		
121	Samkhar		1	1	d	1		a	1	1	1		a					1	
122	Samkhar			1	d														
123	Samkhar		1	1	d	1		a	1	1	1		a					1	
124	Samkhar		1	1	c	1		a	1		1		a					1	
125	Samkhar		1	1	c	1		a	1		1		a					1	
126	Samkhar		1		c	1		a	1	1			b				1		
127	Samkhar		1		c	1		a	1	1			a				1		
128	Samkhar		1		c	1		a	1	1	1	1	a				1		
129	Samkhar		1		c	1		a	1	1	1		a				1		
130	Samkhar		1		c	1		a	1	1			b				1		
131	Samkhar		1		c	1		a	1				a				1		
132	Samkhar		1		c	1		a	1	1			a				1		
133	Samkhar		1		c	1		a	1	1	1	1	a				1		
134	Samkhar		1		c	1		a	1	1	1	1	a				1		
135	Samkhar		1		c	1		a	1		1		c				1		
136	Samkhar		1		c	1		a	1	1	1	1	a				1		
137	Samkhar		1		c	1		a	1	1			a					1	
138	Samkhar		1		c	1		a	1	1	1	1	a				1		
139	Samkhar		1		c	1		a	1	1	1	1	b				1		
140	Samkhar		1		c	1		a	1	1			a				1		
141	Samkhar		1		c	1		a	1	1	1	1	a				1		
142	Samkhar		1		c	1		a	1	1			a				1		
143	Samkhar		1		c	1		a	1	1			a			1			
144	Samkhar		1		c	1		a	1				a					1	
145	Samkhar		1		c	1		a		1			b				1		
146	Samkhar		1		c	1		a		1			b				1		
147	Samkhar		1		c	1		a	1	1	1		a				1		
148	Samkhar		1		c	1		a		1			b				1		
149	Samkhar		1		c	1		a	1	1			a				1		
150	Samkhar		1		c	1		a	1	1			a				1		
151	Samkhar		1		c	1		a	1	1		1	a				1		

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96	Bidung	3	1	300	40	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
97	Bidung	8	4	800	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
98	Bidung	3	1	300	40	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1
99	Bidung	6	2	600	80	1	0	0	0	0	0	0	0	1	0	0	0	0	1	
100	Bidung	5	2	500	80	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
101	Bidung	4	2	400	80	1	0	0	1	0	1	1	0	0	0	0	0	0	1	
102	Bidung	7	5	700	200	1	0	0	0	0	0	1	0	1	0	0	0	0	1	
103	Bartsham	5		300		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
104	Bartsham	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
105	Bartsham	2		120		1	0	0	0	0	0	0	0	0	0	0	0	0	1	
106	Bartsham	5		300		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
107	Bidung	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
108	Bidung	3		180		1	0	0	0	0	0	0	0	0	0	0	0	0	1	
109	Bidung	1		60		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
110	Bartsham	2		120		1	0	0	0	0	0	0	0	0	0	0	0	0	1	
111	Bidung	4	1	400	40	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
112	Bidung	4		240		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
113	Bidung	4		240		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
114	Bidung	7		420		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
115	Bidung	6	2	600	120	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
116	Bidung	3		300		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
117	Bidung	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
118	Bidung	5	1	500	40	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
119	Bidung	6	3	360	120	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
120	Bidung	3	1	300	40	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
121	Samkhar	5	2	300	80	1	0	0	0	0	0	1	0	0	0	0	0	0	1	
122	Samkhar	12	6	720	240	1	1	1	1	1	1	1	1	1	1	0	0	0	1	
123	Samkhar	8	4	480	160	1	1	1	1	1	0	1	0	0	0	0	0	0	1	
124	Samkhar	9	5	540	200	1	0	0	0	1	1	0	0	0	0	0	0	0	1	
125	Samkhar	7		420		0	0	1	0	0	0	0	0	0	0	0	0	0	1	
126	Samkhar	1		60		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
127	Samkhar	1	1	60	40	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
128	Samkhar	2		120		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
129	Samkhar	3		180		1	0	0	0	0	0	0	0	0	0	0	0	0	1	
130	Samkhar	3		120		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
131	Samkhar	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
132	Samkhar	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
133	Samkhar	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
134	Samkhar	3	1	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
135	Samkhar	1		100		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
136	Samkhar	13	1	780	40	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
137	Samkhar	2		120		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
138	Samkhar	3		180		1	0	0	0	0	0	0	0	0	0	0	0	0	1	
139	Samkhar	1		100		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
140	Samkhar	1		100		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
141	Samkhar	1		100		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
142	Samkhar	1		100		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
143	Samkhar	1		100		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
144	Samkhar	1	1	100	40	1	0	0	0	0	0	1	0	0	0	0	0	0	1	
145	Samkhar	1		100		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
146	Samkhar	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
147	Samkhar	4		240		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
148	Samkhar	2		120		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
149	Samkhar	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
150	Samkhar	3		180		0	0	0	0	0	0	0	0	0	0	0	0	0	1	
151	Samkhar	5		300		0	0	0	0	0	0	0	0	0	0	0	0	0	1	

96	Bidung
97	Bidung
98	Bidung
99	Bidung
100	Bidung
101	Bidung
102	Bidung
103	Bartsham
104	Bartsham
105	Bartsham
106	Bartsham
107	Bidung
108	Bidung
109	Bidung
110	Bartsham
111	Bidung
112	Bidung
113	Bidung
114	Bidung
115	Bidung
116	Bidung
117	Bidung
118	Bidung
119	Bidung
120	Bidung
121	Samkhar
122	Samkhar
123	Samkhar
124	Samkhar
125	Samkhar
126	Samkhar
127	Samkhar
128	Samkhar
129	Samkhar
130	Samkhar
131	Samkhar
132	Samkhar
133	Samkhar
134	Samkhar
135	Samkhar
136	Samkhar
137	Samkhar
138	Samkhar
139	Samkhar
140	Samkhar
141	Samkhar
142	Samkhar
143	Samkhar
144	Samkhar
145	Samkhar
146	Samkhar
147	Samkhar
148	Samkhar
149	Samkhar
150	Samkhar
151	Samkhar

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96	Bidung	-1			1	1					1	1			1			1
97	Bidung	-1			1	1					1	1			1			1
98	Bidung	-1				1						1			1			1
99	Bidung	1			1	1					1	1			1			1
100	Bidung	-1			1	1					1	1			1			1
101	Bidung	1			1	1					1	1			1			1
102	Bidung	-1			1	1					1	1			1			1
103	Bartsham	0				1						1			1			1
104	Bartsham	0				1						1			1			1
105	Bartsham	0			1	1					1	1			1			1
106	Bartsham	0				1						1			1			1
107	Bidung	0			1	1					1	1			1			1
108	Bidung	0			1	1					1	1			1			1
109	Bidung	-1			1	1					1	1			1			1
110	Bartsham	0			1	1					1	1			1			1
111	Bidung	1				1						1			1			1
112	Bidung	1				1						1			1			1
113	Bidung					1						1			1			1
114	Bidung	0				1						1			1			1
115	Bidung	1			1	1					1	1			1			1
116	Bidung	1				1						1			1			1
117	Bidung	1			1	1					1	1			1			1
118	Bidung				1	1					1	1			1			1
119	Bidung	1			1	1					1	1			1			1
120	Bidung	0			1	1					1	1			1			1
121	Samkhar					1						1			1			1
122	Samkhar					1						1			1			1
123	Samkhar					1						1			1			1
124	Samkhar					1						1			1			1
125	Samkhar					1						1			1			1
126	Samkhar	1			1						1				1			1
127	Samkhar	1									1				1			1
128	Samkhar	1										1			1			1
129	Samkhar	0										1			1			1
130	Samkhar	1			1						1				1			1
131	Samkhar	1			1						1				1			1
132	Samkhar	1			1						1				1			1
133	Samkhar	1			1						1				1			1
134	Samkhar	1			1						1				1			1
135	Samkhar	1			1						1				1			1
136	Samkhar	1			1						1				1			1
137	Samkhar	1										1			1			1
138	Samkhar	1										1			1			1
139	Samkhar	1										1			1			1
140	Samkhar	1			1						1				1			1
141	Samkhar	0				1						1			1			1
142	Samkhar	1			1						1				1			1
143	Samkhar	1			1	1					1	1			1			1
144	Samkhar	1				1						1			1			1
145	Samkhar	1			1						1				1			1
146	Samkhar	0				1						1			1			1
147	Samkhar	1			1						1				1			1
148	Samkhar	0			1						1				1			1
149	Samkhar	1			1						1				1			1
150	Samkhar	0			1						1				1			1
151	Samkhar	0			1	1					1	1			1			1

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152	Khamdhang	1	1	2	4	1						2	1	0	0	2	2	2	1	0	2	1
153	Khamdhang	0	1	3	4	1						1	2	1	0	0	1	0	0	0	0	0
154	Khamdhang	1	2	1	4	1					167	1	2	1	0	0	0	0	0	0	0	0
155	Khamdhang	3	1	3	7	1					333	1	2	1	1	2	1	0	0	0	0	0
156	Khamdhang	1	3	4	8	1	1				183	1	2	2	0	2	2	0	0	0	0	0
157	Khamdhang	1	2	2	5	1					87	1	2	2	2	1	0	0	0	0	0	0
158	Khamdhang	6	1	0	7	1					707	2	1	1	1	0	0	0	0	1	0	1
159	Khamdhang	2	2	0	4	1					150	2	0	0	1	0	0	0	0	0	0	0
160	Khamdhang	0	1	1	2	1						0	0	0	0	0	0	0	0	0	1	1
161	Khamdhang	2	1	4	7	1						2	2	2	0	2	0	0	0	1	0	2
162	Khamdhang	3	4	3	10	1					167	2	2	1	1	2	1	0	0	0	0	0
163	Khamdhang	2	1	0	3	1						2	2	1	2	1	0	0	0	0	0	0
164	Khamdhang	1	1	1	3	1					220	2	1	1	0	2	2	2	1	0	0	1
165	Khamdhang	0	4	0	4	1					1042	2	0	0	2	2	2	2	2	0	0	0
166	Khamdhang	2	2	1	5	1					200	2	1	0	0	2	2	2	1	0	0	1
167	Khamdhang	2	1	5	8	1					1083	2	2	1	1	2	1	1	0	0	0	0
168	Khamdhang	2	2	5	9	1						2	2	1	0	2	2	1	2	0	0	0
169	Khamdhang	0	1	3	4	1		1			1200	2	1	2	2	1	0	0	1	0	0	1
170	Khamdhang	2	2	3	7	1					2083	2	1	0	1	0	2	0	2	2	2	1
171	Khamdhang	1	1	2	4	1		1			308	1	1	0	0	1	1	0	0	0	0	0
172	Khamdhang	1	2	5	8	1					600	1	2	1	0	2	2	0	0	0	0	0
173	Khamdhang	2	1	3	6	1					630	2	2	2	2	1	1	1	0	0	0	0
174	Khamdhang	2	3	1	6	1					1625	0	0	0	0	0	0	0	0	0	0	0
175	Khamdhang	2	1	4	7	1					1542	2	1	1	2	1	0	0	0	0	0	0
176	Khamdhang	1	2	2	5	1					592	2	1	1	1	0	2	0	0	0	0	0
177	Khamdhang	4	2	2	8	1					808	0	0	0	0	0	0	0	0	0	0	0
178	Khamdhang	3	2	1	6	1					775	2	2	1	1	2	0	1	2	0	0	0
179	Khamdhang	4	2	0	6	1						2	2	1	0	0	1	2	0	0	2	2
180	Khamdhang	2	2	1	5				1			0	0	0	0	0	0	0	0	0	2	1
181	Khamdhang	2	4	1	7	1					1050	2	2	2	1	2	0	2	0	0	0	0
182	Khamdhang	0	3	2	5	1			1		1208	2	2	0	0	2	2	0	0	1	0	1
183	Khamdhang	0	0	1	1	1					248	2	1	1	0	0	0	0	0	0	2	1
184	Khamdhang	3	2	5	10	1	1			1	775	0	2	0	2	1	2	2	2	2	0	2
185	Jamkhar	1	2	1	4	1					833	2	2	0	1	2	2	2	2	1	2	2
186	Jamkhar	2	1	0	3	1			1		583	2	2	0	1	2	2	2	2	1	2	2
187	Khamdhang	1	1	1	3	1			1			2	0	0	0	2	2	0	1	0	0	1
188	Jamkhar	1	3	0	4	1					500	2	2	1	0	2	1	2	0	0	2	2
189		3	3	3	9	1					1125	0	0	0	0	0	0	0	0	0	2	1
190		3	1	0	4	1					1500	0	0	0	0	0	0	0	0	0	0	1
191	Khamdhang	2	1	2	5	1					142	2	1	1	2	2	1	1	0	0	2	1
192	Khamdhang	5	1	3	9	1						2	1	1	1	2	1	1	0	0	2	2
193	Tshokana	2	1	2	5	1					665	2	1	2	2	2	2	2	1	1	2	1
194	Khamdhang	1	1	2	4	1						2	0	0	0	2	2	0	1	0	0	1
195		1	1	3	5	1					500	2	2	1	1	2	2	2	2	1	2	2
196	Khamdhang	1	1	4	6	1					104	2	2	0	1	2	2	2	2	1	2	2
197	Khamdhang	2	1	4	7	1					803	2	2	1	2	1	2	2	1	1	2	2
198	Khamdhang	3	1	4	8	1					350	2	2	1	2	2	2	2	2	0	2	2
199	Khamdhang	2	1	2	5	1					233	2	2	0	0	2	2	1	2	1	2	2
200	Tshokana	1	2	2	5	1					397	2	1	2	1	2	2	2	2	1	2	2
201	Khamdhang	2	1	0	3	1					88	2	0	0	0	2	2	0	0	0	0	1
202	Khamdhang	2	2	3	7				1	1		2	2	1	2	2	2	2	1	1	0	0
203	Khamdhang	2	2	4	8	1					83	0	0	0	0	0	0	0	0	0	2	2
204	Khamdhang	0	2	1	3	1					200	0	0	0	0	0	0	0	0	0	2	2
205	Khamdhang	1	2	2	5	1					500	0	0	0	0	0	0	0	0	0	2	2
206	Khamdhang	2	3	2	7	1					158	2	2	2	2	2	2	2	1	1	0	0
207	Khamdhang	1	1	2	4	1						2	1	0	0	1	0	2	2	1	2	2

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152	Khamdhang	0	0	2	2	2	1	0	0	0	0	1				b	32	0.8		1
153	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	105	2.625		1
154	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	50	1.25		1
155	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	30	0.429		1
156	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	36	0.45		1
157	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	45	0.9		1
158	Khamdhang	1	1	0	0	0	1	0	0	0	0	1				b	48	0.686		1
159	Khamdhang	1	0	0	0	0	0	0	0	0	0	1				b	48	1.2		1
160	Khamdhang	2	1	0	0	0	0	0	0	0	0	1				b	25	1.25		1
161	Khamdhang	2	0	2	0	0	1	0	0	0	0	1				b	36	0.514		1
162	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	45	0.45		1
163	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	60	2		1
164	Khamdhang	1	0	2	2	2	1	0	1	0	1			1		d	737			1
165	Khamdhang	0	2	2	2	2	0	0	1	0	1			1		c				1
166	Khamdhang	0	0	2	2	2	1	0	1	0	1			1		c				1
167	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b				1
168	Khamdhang	0	0	0	0	0	0	0	0	0	0			1		c				1
169	Khamdhang	2	2	2	1	0	1	0	0	0	0	1		1		b			1	1
170	Khamdhang	0	1	0	2	0	2	2	0	0	0	1		1		b			1	1
171	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	80	2		1
172	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	100	1.25		1
173	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b				1
174	Khamdhang	0	0	0	0	0	0	0	0	1	0	1		1	1	d	285			1
175	Khamdhang	0	0	0	0	0	0	0	1	0	1	1		1	1	d	285			1
176	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				c				1
177	Khamdhang	0	0	0	0	0	0	0	0	1	0	1				c				1
178	Khamdhang	0	0	0	0	0	0	0	1	0	1			1		d	60			1
179	Khamdhang	1	0	0	1	2	0	0	0	0	0	1				b	40	0.667		1
180	Khamdhang	0	2	0	0	2	0	0	0	0	1					b	105	2.1		1
181	Khamdhang	0	0	0	0	0	0	0	1	0	0	1				d	100		1	1
182	Khamdhang	0	0	2	2	0	1	0	0	0	0					b	400			1
183	Khamdhang	1	0	0	0	0	0	0	0	0	0	1		1		b	100			1
184	Khamdhang	0	2	1	2	2	2	2	0	0	0	1		1		b	95	0.95		1
185	Jamkhar	0	1	2	2	2	2	1	1	70	100	1			1	d	70		1	1
186	Jamkhar	0	1	0	2	2	2	1	1	68	100	1			1	d	68			1
187	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	60	2		1
188	Jamkhar	0	0	1	2	2	0	0	1	1000	140				1	d	500			1
189		0	0	2	2	0	0	0	0	0	0	1				b	70	0.778		1
190		0	0	2	2	0	0	0	0	0	0	1				b	75	1.875		1
191	Khamdhang	1	2	2	2	1	1	0	1	78				1		d	100		1	1
192	Khamdhang	1	1	2	1	0	2	1	1	76					1	d	100			1
193	Tshokana	1	2	2	2	2	2	1	1	80					1	d	120			1
194	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	60	1.5		1
195		0	1	2	2	1	2	0	0	0	0	1		1		c	105			1
196	Khamdhang	2	0	2	2	2	1	2	0	0	0	1		1		b	100	1.667		1
197	Khamdhang	2	1	2	2	1	2	0	0	0	0	1		1		c	200		1	1
198	Khamdhang	2	1	2	2	1	1	0	0	0	0	1		1		b	65	0.813		1
199	Khamdhang	1	2	2	1	2	1	0	0	0	0	1		1		c	500			1
200	Tshokana	1	2	2	2	2	1	1	1	78				1		d	110			1
201	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				b	36	1.2		1
202	Khamdhang	0	0	0	0	0	0	0	0	0	0	1		1		b	30	0.429	1	1
203	Khamdhang	2	2	2	2	2	2	1	0	0	0	1		1		c				1
204	Khamdhang	2	2	2	2	2	1	1	0	0	0	1		1		c				1
205	Khamdhang	2	2	2	2	2	1	1	0	0	0	1		1		c				1
206	Khamdhang	0	0	0	0	0	0	0	0	0	0	1				c			1	1
207	Khamdhang	0	0	1	0	2	1	0	1	70		1		1		d	300			1

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152	Khamdhang	1		c	1		a	1	1	1	1	a					1
153	Khamdhang	1		c	1		a	1	1	1	1	a					1
154	Khamdhang	1		c	1		a	1				a					1
155	Khamdhang	1		c	1		a	1				a					1
156	Khamdhang	1		c	1		a	1			1	a					1
157	Khamdhang	1		c	1		a	1				a					1
158	Khamdhang	1		c	1		a	1				a					1
159	Khamdhang	1		c	1		a	1				a					1
160	Khamdhang	1		c	1		a	1		1		a					1
161	Khamdhang	1		c	1		a	1		1		a					1
162	Khamdhang	1		c	1		a	1				a					1
163	Khamdhang	1		c	1		a	1				a					1
164	Khamdhang	1		c	1		a	1				a					1
165	Khamdhang	1		c	1		a	1				a					1
166	Khamdhang	1		c	1		a	1		1	1	a					1
167	Khamdhang	1		c	1		a	1		1	1	d					1
168	Khamdhang	1		c	1		a	1				a					1
169	Khamdhang	1		c	1		a	1		1	1	a					1
170	Khamdhang	1		c	1		a	1		1	1	a					1
171	Khamdhang	1		c	1		a	1		1	1	a					1
172	Khamdhang	1		c	1		a			1		b					1
173	Khamdhang	1		c	1		a			1	1	b					1
174	Khamdhang	1		c	1		a	1		1		a					1
175	Khamdhang	1		c	1		a	1		1	1	a					1
176	Khamdhang	1		c	1		a	1		1		d					1
177	Khamdhang	1		c	1		a	1		1		a					1
178	Khamdhang	1		c	1		a	1			1	a					1
179	Khamdhang	1		c	1		a	1		1	1	a					1
180	Khamdhang	1		c	1		a			1		c					1
181	Khamdhang	1		c	1		a	1		1	1	a					1
182	Khamdhang	1		c	1		a	1		1		a					1
183	Khamdhang	1		c	1		a	1		1		a					1
184	Khamdhang	1		c	1		a	1		1	1	a					1
185	Jamkhar	1		c	1		a	1			1	a					1
186	Jamkhar	1		c	1		a	1			1	b					1
187	Khamdhang	1		c	1		a	1			1	d					1
188	Jamkhar	1		c	1		a	1		1	1	a					1
189		1		c	1		a	1				a					1
190		1		c	1		a	1				a					1
191	Khamdhang	1		c	1		a				1	a					1
192	Khamdhang	1		c	1		a			1	1	b					1
193	Tshokana		1	d	1		a	1				b				1	
194	Khamdhang	1		c	1		a	1				a					1
195		1		c	1		a	1			1	a					1
196	Khamdhang	1		c	1		a	1		1	1	a					1
197	Khamdhang	1		c	1		a	1		1	1	a					1
198	Khamdhang	1		c	1		a	1			1	a					1
199	Khamdhang	1		c	1		a	1		1	1	a					1
200	Tshokana		1	d	1		a	1			1	b					1
201	Khamdhang	1		c	1		a	1			1	a					1
202	Khamdhang	1		c		1	b										1
203	Khamdhang	1		c	1		a	1		1		a					1
204	Khamdhang	1		c	1		a			1		b					1
205	Khamdhang	1		c	1		a			1		b					1
206	Khamdhang	1		c	1		a	1		1		b					1
207	Khamdhang	1		c	1		a	1		1	1						1

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152	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
153	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
154	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
155	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
156	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
157	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
158	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
159	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
160	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
161	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
162	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
163	Khamdhang					0	0	0	0	0	0	0	0	0	0	0	0			
164	Khamdhang	3		180		0	0	0	0	0	0	0	0	0	0	0			1	
165	Khamdhang	1	1	60	40	1	0	0	0	0	0	0	0	0	0	0			1	
166	Khamdhang	2	1	120	40	0	0	0	0	0	0	0	0	0	0	0			1	
167	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
168	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
169	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
170	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
171	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
172	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
173	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
174	Khamdhang	2	1	120	40	0	0	0	0	0	0	0	0	0	0	0			1	
175	Khamdhang	3		180		0	0	0	0	0	0	0	0	0	0	0			1	
176	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
177	Khamdhang					0	0	0	0	0	0	0	0	0	0	0			1	
178	Khamdhang	2		120		0	0	0	0	0	0	0	0	0	0	0			1	
179	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
180	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
181	Khamdhang	4	1	240	40	0	0	0	0	0	0	0	0	0	0	0			1	
182	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
183	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
184	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
185	Jamkhar	11	1	660	40	0	0	0	0	0	0	0	0	0	0	0			1	
186	Jamkhar	4		400		0	0	0	0	0	0	0	0	0	0	0			1	
187	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
188	Jamkhar	3	2	300	80	1	0	0	0	0	0	0	0	0	0	0			1	
189						0	0	0	0	0	0	0	0	0	0	0				
190						0	0	0	0	0	0	0	0	0	0	0				
191	Khamdhang	4	2	240	80	0	0	0	0	0	0	0	0	0	0	0			1	
192	Khamdhang	2	1	120	40	0	0	0	0	0	0	0	0	0	0	0			1	
193	Tshokana	8		480		0	0	0	0	1	0	0	0	0	0	0			1	
194	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
195						0	0	0	0	0	0	0	0	0	0	0				
196	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
197	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
198	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
199	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
200	Tshokana	6	2	360	80	0	0	0	0	0	0	0	0	0	0	0			1	
201	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
202	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
203	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
204	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
205	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
206	Khamdhang					0	0	0	0	0	0	0	0	0	0	0				
207	Khamdhang	3	1	180	40	1	0	0	0	0	0	0	0	0	0	0			1	

152	Khamdhang
153	Khamdhang
154	Khamdhang
155	Khamdhang
156	Khamdhang
157	Khamdhang
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173	Khamdhang
174	Khamdhang
175	Khamdhang
176	Khamdhang
177	Khamdhang
178	Khamdhang
179	Khamdhang
180	Khamdhang
181	Khamdhang
182	Khamdhang
183	Khamdhang
184	Khamdhang
185	Jamkhar
186	Jamkhar
187	Khamdhang
188	Jamkhar
189	
190	
191	Khamdhang
192	Khamdhang
193	Tshokana
194	Khamdhang
195	
196	Khamdhang
197	Khamdhang
198	Khamdhang
199	Khamdhang
200	Tshokana
201	Khamdhang
202	Khamdhang
203	Khamdhang
204	Khamdhang
205	Khamdhang
206	Khamdhang
207	Khamdhang

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152	Khamdhang																	
153	Khamdhang																	
154	Khamdhang																	
155	Khamdhang																	
156	Khamdhang																	
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160	Khamdhang																	
161	Khamdhang																	
162	Khamdhang																	
163	Khamdhang																	
164	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
165	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
166	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
167	Khamdhang																	
168	Khamdhang																	
169	Khamdhang																	
170	Khamdhang																	
171	Khamdhang																	
172	Khamdhang																	
173	Khamdhang																	
174	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
175	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
176	Khamdhang																	
177	Khamdhang																	
178	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
179	Khamdhang																	
180	Khamdhang																	
181	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
182	Khamdhang																	
183	Khamdhang																	
184	Khamdhang																	
185	Jamkhar		1			1	1	1	1	1	1	1	1	1	1	1	1	1
186	Jamkhar		1			1	1	1	1	1	1	1	1	1	1	1	1	1
187	Khamdhang																	
188	Jamkhar		1			1	1	1	1	1	1	1	1	1	1	1	1	1
189																		
190																		
191	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
192	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1
193	Tshokana		1			1	1	1	1	1	1	1	1	1	1	1	1	1
194	Khamdhang																	
195																		
196	Khamdhang																	
197	Khamdhang																	
198	Khamdhang																	
199	Khamdhang																	
200	Tshokana		1			1	1	1	1	1	1	1	1	1	1	1	1	1
201	Khamdhang																	
202	Khamdhang																	
203	Khamdhang																	
204	Khamdhang																	
205	Khamdhang																	
206	Khamdhang																	
207	Khamdhang		1			1	1	1	1	1	1	1	1	1	1	1	1	1

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152	Khamdhang																		
153	Khamdhang																		
154	Khamdhang																		
155	Khamdhang																		
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160	Khamdhang																		
161	Khamdhang																		
162	Khamdhang																		
163	Khamdhang																		
164	Khamdhang	1	1	1	1	1	1	1	1										
165	Khamdhang	1	1	1	1	1	1	1	1										
166	Khamdhang	1	1	1	1	1	1	1	1										
167	Khamdhang																		
168	Khamdhang																		
169	Khamdhang																		
170	Khamdhang																		
171	Khamdhang																		
172	Khamdhang																		
173	Khamdhang																		
174	Khamdhang	1	1	1	1	1	1	1	1										
175	Khamdhang	1	1	1	1	1	1	1	1										
176	Khamdhang																		
177	Khamdhang																		
178	Khamdhang	1	1	1	1	1	1	1	1										
179	Khamdhang																		
180	Khamdhang																		
181	Khamdhang	1	1	1	1	1	1	1	1										
182	Khamdhang																		
183	Khamdhang																		
184	Khamdhang																		
185	Jamkhar	1	1	1	1	1	1	1	1										
186	Jamkhar	1	1	1	1	1	1	1	1										
187	Khamdhang																		
188	Jamkhar	1	1	1		1	1	1	1										
189																			
190																			
191	Khamdhang	1	1		1	1	1	1	1										
192	Khamdhang	1	1			1	1	1	1										
193	Tshokana	1	1	1	1	1	1	1	1										
194	Khamdhang																		
195																			
196	Khamdhang																		
197	Khamdhang																		
198	Khamdhang																		
199	Khamdhang																		
200	Tshokana		1		1	1	1	1	1										
201	Khamdhang																		
202	Khamdhang																		
203	Khamdhang																		
204	Khamdhang																		
205	Khamdhang																		
206	Khamdhang																		
207	Khamdhang	1	1	1		1	1	1	1										

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208	Khamdhang	4	3	4	11	1				550	2	2	1	0	1	2	0	1	1	0	0
209		5	2	4	11	1				3600	2	1	0	0	2	2	0	0	0	2	1
210		2	3	3	8	1				1142	0	0	0	0	0	0	0	0	0	1	1
211	Khamdhang	1	1	2	4	1				600	2	0	0	0	2	2	0	0	0	0	1
212	Khamdhang	1	1	2	4	1				700	2	2	1	1	1	2	2	0	0	2	2
213	Khamdhang	1	1	2	4	1				200	2	0	0	0	2	2	0	1	0	0	1
214	Khamdhang	2	2	1	5	1				391	2	2	1	1	2	1	2	2	1	2	2
215	Khamdhang	2	2	2	6			1			2	2	1	1	2	2	2	1	1	2	2
216	Rongthong	3	1	2	6	1			1		2	2	0	1	2	2	2	1	0	2	1
217	Tongmay Tc	3	3	5	11	1			1		2	2	1	0	1	2	2	2	0	2	1
218	Kanglung	1	3	0	4				1		2	1	1	1	2	1	1	2	2	2	1
219	Kanglung	2	5	2	9				1		2	1	1	1	2	1	2	2	0	2	1
220	Kanglung	2	2	0	4				1		2	1	1	1	2	1	2	2	0	2	1
221	Kanglung	6	3	3	12				1		2	1	1	1	2	2	1	0	2	2	2
222	Kanglung	2	2	3	7				1		2	1	0	1	2	2	1	1	1	2	2
223	Kanglung	2	4	5	11				1		2	1	1	2	2	2	0	0	1	2	2
224	Kanglung	2	2	2	6				1		2	0	0	1	2	2	1	0	1	2	1
225	Kanglung	1	1	4	6	1			1		2	2	1	0	2	2	2	2	0	2	2
226	Kanglung	1	1	5	7				1		2	1	2	2	2	2	2	2	1	2	2
227	Rongthong	1	2	2	5	1					2	1	0	0	1	1	2	1	0	2	1
228	Kanglung	1	1	5	7				1		2	1	1	1	1	1	2	2	2	2	1
229	Kanglung	5	2	7	14	1			1		2	2	2	2	2	2	2	2	1	2	2
230	Kanglung	2	1	1	4	1			1		2	2	2	1	2	2	2	2	2	2	2
231	Kanglung	3	1	5	9	1					2	2	1	1	2	2	2	2	1	2	2
232	Kanglung	4	2	2	8	1			1		2	2	0	0	2	2	2	2	2	2	2
233	Kanglung	1	2	2	5	1					2	2	0	2	2	2	2	2	1	2	2
234	Kanglung	1	1	1	3				1		2	2	1	2	2	2	2	1	1	2	2
235	Kanglung	1	1	0	2				1		2	1	2	1	2	2	2	1	1	1	1
236	Kanglung	1	1	0	2				1		2	1	1	1	2	1	2	2	0	2	2
237	Kanglung	2	1	4	7				1		2	1	1	1	2	2	2	1	1	2	0
238	Kanglung	1	1	3	5				1		2	0	1	2	2	2	1	1	2	2	2
239	Kanglung	1	1	1	3				1		2	0	1	2	2	2	2	2	1	2	0
240	Kanglung	1	2	3	6	1					2	1	0	2	2	2	2	2	1	2	1
241	Kanglung	1	1	6	8				1		2	1	2	1	2	2	2	1	1	2	2
242	Kanglung	1	1	7	9				1		2	1	2	2	2	2	2	2	1	2	2
243	Kanglung	2	1	3	6				1		2	1	2	2	2	2	2	2	1	1	2
244	Kanglung	2	2	6	10	1			1		2	1	1	2	2	2	1	2	0	2	2
245	Kanglung	1	2	2	5	1			1		2	2	1	0	2	2	2	2	1	2	2
246	Kanglung	1	2	2	5				1		2	2	1	0	2	2	2	2	2	2	2
247	Tongmay Tc	3	5	3	11	1			1		2	2	2	0	1	2	2	1	0	2	1
248	Khangma	1	1	4	6				1		2	2	0	0	2	2	2	2	0	2	2
249	Khangma	0	3	3	6	1			1		2	2	1	0	2	2	2	2	2	2	2
250	Bumthang	2	1	5	8	1			1		2	1	1	1	2	2	1	1	0	2	1
251	Yangtse	1	1	5	7	1														2	
252	Yangtse	1	1	5	7	1			1											2	
253	Yangtse	1	1		2	1					450	1	1	1	1	1	1	1	1		
254	Khamdhang	1	1	4	6	1					1100	2	0	2	0	0	2	0	0		
255	Khaling	0	1	4	5				1		10000	0	2	0	0	0	2	2	0		
260	Rangjung	2	0	2	4				1			2	1	2	2	1	2	1	2	2	2
261	Rangjung	1	1	2	4				1			2	2	1	2	2	2	2	1	2	2
262	Shongphu	1	2	2	5				1			0	0	0	0	0	0	0	0	0	0
263	Shongphu	4	3	1	8	1						0	0	0	0	0	0	0	0	2	1
264	Shongphu	3	3	1	7	1						0	0	0	0	0	0	0	0	2	1
265	Rangjung	1	1	3	5	1			1			0	0	0	0	0	0	0	0	0	0
266	Rangjung	1	4	3	8	1						0	2	0	0	0	0	0	2	0	0
267	Shongphu	3	3	5	11	1						0	0	0	0	0	0	0	0	2	1

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208	Khamdhang		c			1			c			1			c			1			c
209			c			1			c			1			c			1			c
210			c			1			c			1			c			1			c
211	Khamdhang		c			1			c			1			c			1			c
212	Khamdhang		c			1			c			1			c			1			c
213	Khamdhang		c			1			c			1			c			1			c
214	Khamdhang		c		1	1			c		1	1			c			1			c
215	Khamdhang		a		1				a		1				a		1				a
216	Rongthong		c			1			c			1			c			1			c
217	Tongmay Tc		c			1			c			1			c			1			c
218	Kanglung		a		1				a		1				a		1				a
219	Kanglung		c		1		1		c			1		1	c			1		1	d
220	Kanglung		a		1				a		1				a		1				d
221	Kanglung		a		1				a		1				a		1				d
222	Kanglung		a		1				a		1				a		1				d
223	Kanglung		a		1				a		1				a		1				d
224	Kanglung		a		1				a		1				a		1				d
225	Kanglung		c			1			c			1			c			1			c
226	Kanglung		a		1				a		1				a		1				c
227	Rongthong		c			1			c			1			c			1			c
228	Kanglung		a		1				a		1				a		1				d
229	Kanglung		c		1		1		c			1			c			1			c
230	Kanglung		a		1				a		1				a		1				c
231	Kanglung		c			1			c			1			c			1			c
232	Kanglung		c			1			c			1			c			1			c
233	Kanglung		c			1			c			1			c			1			c
234	Kanglung		a		1				a		1				a		1				c
235	Kanglung		a		1				a		1				a		1				c
236	Kanglung		b			1			b			1			b		1				b
237	Kanglung		a		1				a		1				a		1				d
238	Kanglung		a		1				a		1				a		1				d
239	Kanglung		a		1				a		1				a		1				d
240	Kanglung		c			1			c			1			c			1			c
241	Kanglung		c		1				c		1				c		1				c
242	Kanglung		a		1		1		a		1		1		a		1				c
243	Kanglung		c		1		1		c		1		1		c		1				c
244	Kanglung		c			1			c			1			c			1			c
245	Kanglung		c			1			c			1			c			1			c
246	Kanglung		c		1				a		1				a		1				c
247	Tongmay Tc		c			1			c			1			c			1			c
248	Khangma		a		1				a		1				a		1				c
249	Khangma		a		1				a		1				a		1				d
250	Bumthang		c		1		1		c		1		1		c			1			c
251	Yangtse		c						c						c						c
252	Yangtse		c						c						c						c
253	Yangtse		c						c						c						c
254	Khamdhang		c						c						c						c
255	Khaling	1	a		1				a						a			1			d
260	Rangjung	1	a						a						a			1			d
261	Rangjung	1	d								1						1				a
262	Shongphu	1	a								1						1				a
263	Shongphu	1	c														1				c
264	Shongphu	1	a														1		1		c
265	Rangjung	1	d														1				b
266	Rangjung	1	a														1				a
267	Shongphu	1	d														1				c

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208	Khamdhang	1		c	1		a	1	1	1	1	a				1			
209		1		c	1		a	1	1	1	1	a				1			
210		1		c	1		a	1				a				1			
211	Khamdhang	1		c	1		a	1	1			b				1			
212	Khamdhang	1		c	1		a	1	1		1					1			
213	Khamdhang	1		c	1		a	1	1			a				1			
214	Khamdhang	1		c	1		a	1	1	1	1	a				1			
215	Khamdhang	1		c	1		a	1		1	1	d			1				
216	Rongthong	1		c	1		a	1				a				1			
217	Tongmay Tc	1		c	1		a	1	1			a				1			
218	Kanglung	1	1	c		1	b											1	
219	Kanglung	1	1	b		1	b											1	
220	Kanglung	1	1	c		1	b							1					
221	Kanglung	1		c		1	b											1	
222	Kanglung	1		c		1	b											1	
223	Kanglung		1	d															
224	Kanglung	1	1	c		1	b												
225	Kanglung	1		c	1		a			1	1	c				1			
226	Kanglung	1		c	1	1	a	1		1	1	d			1				
227	Rongthong	1		c	1		a	1	1			a				1			
228	Kanglung	1		c		1	b									1			
229	Kanglung	1		c	1		a	1	1	1	1	b				1			
230	Kanglung	1		c	1		a	1	1			a						1	
231	Kanglung	1		c	1		a			1	1					1			
232	Kanglung	1		c	1		a	1				a				1			
233	Kanglung	1		c	1		a				1	d				1			
234	Kanglung	1	1	c			b											1	
235	Kanglung	1	1	c		1	b											1	
236	Kanglung																		
237	Kanglung	1	1	d		1	a												
238	Kanglung	1		c		1	b												
239	Kanglung	1		c		1	b												
240	Kanglung	1		c	1		a	1	1			a				1			
241	Kanglung	1		c	1	1	a	1	1			a							
242	Kanglung	1		c	1	1	a	1				a			1				
243	Kanglung	1		c	1	1	a	1		1	1								
244	Kanglung	1		c	1		a	1	1	1									
245	Kanglung	1		c	1		a									1			
246	Kanglung	1		c		1	b									1			
247	Tongmay Tc	1		c	1		a	1	1			a				1			
248	Khangma	1		c		1	b									1			
249	Khangma	1		c		1	b									1			
250	Bumthang	1		c	1	1	b	1	1	1		a			1				
251	Yangtse	1		c	1		a	1	1			a	5	0.714				1	0.143
252	Yangtse	1		c	1		a	1	1	1		a	5					0.3	0.15
253	Yangtse	1		c	1		a	1				a						0.5	0.083
254	Khamdhang	1		c	1		a	1	1		1	a							
255	Khaling	1		c		1	b												
260	Rangjung	1		1		1	b												
261	Rangjung	1	1	d		1	b												
262	Shongphu	1		c		1	b												
263	Shongphu	1	1	d	1		a	1	1			a			1				
264	Shongphu	1	1	d	1		a	1		1		a	15	2.143	1				
265	Rangjung		1	d	1		a	1		1		a			1				
266	Rangjung	1		c	1		a	1		1	1	a			1				
267	Shongphu	1		c	1		a	1		1	1	a	18	1.636	1				

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208	Khamdhang				0	0	0	0	0	0	0	0	0	0	0				
209					0	0	0	0	0	0	0	0	0	0	0				
210					0	0	0	0	0	0	0	0	0	0	0				
211	Khamdhang				0	0	0	0	0	0	0	0	0	0	0				
212	Khamdhang	3	1	180	40	0	0	0	0	0	0	0	0	0	0			1	
213	Khamdhang					0	0	0	0	0	0	0	0	0	0				
214	Khamdhang	3	1	180	40	1	0	0	0	0	0	0	0	0	0			1	
215	Khamdhang	7	2	420	80	1	0	0	0	0	0	0	0	0	0			1	
216	Rongthong					0	0	0	0	0	0	0	0	0	0				
217	Tongmay Tc					0	0	0	0	0	0	0	0	0	0				
218	Kanglung	6	6	600	240	1	1	1	1	1	1	0	0	0	0			1	
219	Kanglung	45	12	100	480	1	1	1	1	1	1	1	1	0	0			1	
220	Kanglung	40	20	100	40	1	1	1	1	1	1	1	0	0	0			1	
221	Kanglung	4	3	400	120	1	1	1	1	1	1	1	1	1	0			1	
222	Kanglung	6	4	600	160	1	1	1	1	1	0	1	1	0	0			1	
223	Kanglung	15	11	900	440	1	1	1	1	1	1	1	1	0	0			1	
224	Kanglung	13	12	1300	480	1	1	1	1	0	1	1	0	1	0			1	
225	Kanglung	2		200		0	0	0	0	0	0	0	0	0	0			1	
226	Kanglung	2		120		1	0	0	0	0	0	0	0	0	0			1	
227	Rongthong					0	0	0	0	0	0	0	0	0	0				
228	Kanglung	6	2	600	80	1	1	0	0	0	1	0	0	0	0			1	
229	Kanglung	5	1	300	40	1	0	0	0	0	0	1	0	0	0			1	
230	Kanglung	4	1	400	40	1	0	0	0	0	0	0	0	0	0			1	
231	Kanglung	2		200		1	0	0	0	0	0	0	0	0	0			1	
232	Kanglung	2		120		0	0	0	0	0	0	0	0	0	0			1	
233	Kanglung	2	1	200	100	0	0	0	0	0	0	0	0	0	0			1	
234	Kanglung	10	6	600	240	0	1	0	1	1	0	1	1	0	0			1	
235	Kanglung	8	6	800	240	0	1	0	1	0	0	1	1	0	0			1	
236	Kanglung	1		60		1	0	0	0	0	0	0	0	0	0			1	
237	Kanglung					0	1	0	0	0	1	1	0	0	0			1	
238	Kanglung	5	2	500	80	0	1	0	0	1	1	1	1	1	0			1	
239	Kanglung	10	6	600	240	1	1	0	1	1	1	1	1	1	0			1	
240	Kanglung	2		200		1	0	0	0	0	0	0	0	0	0			1	
241	Kanglung	3		180		1	0	0	0	0	1	1	1	0	0			1	
242	Kanglung	2	1	120	40	1	1	0	0	0	0	0	0	0	0			1	
243	Kanglung	3	1	180	20	1	1	0	0	0	0	0	1	0	0			1	
244	Kanglung	2		200		0	0	0	0	0	0	0	0	0	0			1	
245	Kanglung	4		400		1	0	0	0	0	0	1	0	0	0			1	
246	Kanglung	5	1	500	40	1	0	0	0	0	0	0	0	0	0			1	
247	Tongmay Tc					1	0	0	0	0	0	0	0	0	0				
248	Khangma	1		100		1	0	0	0	0	0	0	0	0	0			1	
249	Khangma	7		700		1	1	0	1	0	1	1	0	0	0			1	
250	Bumthang	3		180		1	1	0	0	0	0	1	0	0	0			1	
251	Yangtse	5	2			0	0	0	0	0	0	0	0	0	0		17.5	1	
252	Yangtse																		
253	Yangtse	6	3			0	0	0	0	0	0	0	0	0	0			42	1
254	Khamdhang																	60	
255	Khaling	6	3			1	0	0	0	0	1	1	0	0	0	163	100	1	
260	Rangjung																		
261	Rangjung																		
262	Shongphu																		
263	Shongphu																		
264	Shongphu																		
265	Rangjung																		
266	Rangjung																		
267	Shongphu																		

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208	Khamdhang																			
209																				
210																				
211	Khamdhang																			
212	Khamdhang																			
213	Khamdhang																			
214	Khamdhang																			
215	Khamdhang																			
216	Rongthong																			
217	Tongmay To																			
218	Kanglung																			
219	Kanglung																			
220	Kanglung																			
221	Kanglung																			
222	Kanglung																			
223	Kanglung																			
224	Kanglung																			
225	Kanglung																			
226	Kanglung																			
227	Rongthong																			
228	Kanglung																			
229	Kanglung																			
230	Kanglung																			
231	Kanglung																			
232	Kanglung																			
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241	Kanglung																			
242	Kanglung																			
243	Kanglung																			
244	Kanglung																			
245	Kanglung																			
246	Kanglung																			
247	Tongmay To																			
248	Khangma																			
249	Khangma																			
250	Bumthang																			
251	Yangtse																			
252	Yangtse									1		1								
253	Yangtse																			
254	Khamdhang		2			2		2												
255	Khaling		2			2														1
260	Rangjung																			
261	Rangjung																			1
262	Shongphu																			
263	Shongphu																			1
264	Shongphu											1								
265	Rangjung																			
266	Rangjung																			
267	Shongphu																			

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208	Khamdhang																		
209																			
210																			
211	Khamdhang																		
212	Khamdhang		1					1	1	1				1		1	1	1	1
213	Khamdhang																		
214	Khamdhang		1				1	1	1	1	1	1	1	1	1	1	1	1	1
215	Khamdhang		1																
216	Rongthong																		
217	Tongmay To																		
218	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
219	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
220	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
221	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
222	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
223	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
224	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
225	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
226	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
227	Rongthong																		
228	Kanglung		1					1	1	1	1	1	1	1	1	1	1	1	1
229	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
230	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
231	Kanglung		1					1	1	1	1	1	1	1	1	1	1	1	1
232	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
233	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
234	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
235	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
236	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
237	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
238	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
239	Kanglung																		
240	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
241	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
242	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
243	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
244	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
245	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
246	Kanglung		1				1	1	1	1	1	1	1	1	1	1	1	1	1
247	Tongmay To																		
248	Khangma		1					1		1	1	1	1			1	1		
249	Khangma		1					1	1	1	1	1	1	1	1	1	1	1	1
250	Bumthang		1					1		1	1	1	1			1	1		
251	Yangtse		1				1			1	1		1						
252	Yangtse		1			1													
253	Yangtse		0							1	1								
254	Khamdhang																		
255	Khaling		1				1					0							
260	Rangjung																		
261	Rangjung																		
262	Shongphu																		
263	Shongphu																		
264	Shongphu																		
265	Rangjung																		
266	Rangjung																		
267	Shongphu																		

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268	Shongphu	1	1	2	4	1						0	0	2	2	1	2	1	2	0	0
269	Rannjung	3	2	5	10	1						2	2	2	1	2	2	2	2	1	2
270	Rangjung	1	2	1	4		1		1	1		2	2	1	2	2	2	1	2	2	2
271	Phongmey	2	3	2	7	1						0	0	0	0	0	0	0	0	0	1
272	Shongphu	1	2	2	5				1			2	2	1	0	0	2	2	2	0	2
273	Rangjung	1	2	2	5		1					1	0	0	0	0	0	0	0	0	0
274	Bartsham	4	2	0	6	1	1					2	2	2	2	2	2	2	2	0	0
275	Bartsham	2	2	1	5	1						0	0	0	2	2	2	2	0	0	0
276	Galing	4	2	1	7	1	1					2	2	0	0	0	2	2	2	0	0
277	Rangjung	1	1	2	4		1					2	1	1	1	2	2	2	2	1	2
278	Khamdang	3	1	1	5	1						2	0	2	1	2	2	2	2	0	0
279	Tsenkharla	1	3	3	7		1					1	0	0	0	2	0	0	0	0	1
280	Tsenkharla	1	4	5	10	1	1					2	0	0	0	0	2	2	1	1	0
281	Tsenkharla	3	3	4	10	1			1			2	2	0	1	2	2	1	1	0	0
282	Khamdang	1	2	4	7	1						2	0	0	0	1	0	2	0	0	0
283	Khamdang	2	2	5	9	1						2	0	0	0	1	0	2	0	0	0
284	Khamdang	1	1	5	7	1						2	2	1	2	2	2	2	1	2	2
285	Khamdang	1	1	5	7				1			2	2	1	2	2	2	2	2	1	0
286	Khamdang	1	2	5	8		1					2	2	1	2	2	2	2	2	2	2
287	Khamdang	4	4	3	11	1	1					2	2	1	2	2	1	2	2	1	0
288	Tsenkharla	2	1	3	6		1					2	2	1	2	2	2	2	2	2	2
289	Tsenkharla	1	3	2	6		1					2	2	1	2	2	2	2	2	1	2
290	Khamdang	2	3	3	8	1						2	2	2	1	2	2	2	2	2	2
291	Tsenkharla	2	2	3	7	1	1					2	1	0	0	2	2	1	1	0	2
292	Tsenkharla	2	1	2	5		1					2	1	2	2	1	2	1	1	2	1
293	T/Gang	2	1	3	6				1			2	1	1	0	1	1	1	0	0	1
294	T/Gang	5	4	2	11		1					2	1	1	0	2	2	2	2	1	2
295	T/Gang	1	1	6	8		1					2	2	2	2	2	2	2	1	1	2
296	T/Gang	3	2	4	9		1					2	1	1	2	2	2	1	1	1	2
297	T/Gang	1	1	3	5		1					2	1	1	0	2	2	2	1	0	2
298	T/Gang	1	1	3	5		1					1	2	2	1	1	2	0	0	1	2
299	T/Gang	3	2	5	10		1					2	2	1	2	2	2	2	2	0	2
300	T/Gang	1	1	2	4		1					2	1	2	2	1	2	1	1	2	1
301	T/Gang	3	3	2	8	1	1					2	0	0	0	0	2	0	0	0	0
302	Bartsham	2	1	1	4				1			1	2	2	0	2	1	2	2	0	2
303	Radhi	2	2	1	5				1			2	1	2	1	2	2	2	1	1	2
304	T/Gang	1	1	5	7		1					2	2	1	1	2	2	2	2	1	2
305	Bartsham	1	2	4	7	1						2	2	2	2	2	2	2	2	2	2
306	Bartsham	1	3	3	7		1					2	2	2	2	2	2	2	2	1	2
307	Bartsham	4	3	2	9	1						2	2	2	1	2	1	0	2	1	2
308	T/Gang	1	1	6	8		1			1		2	1	1	1	2	2	2	1	1	2
309	T/Gang	1	2	2	5		1					2	1	1	1	2	2	1	2	0	2
310	T/Gang	2	4	4	10		1					2	2	1	2	2	2	1	1	1	2
311	Bartsham	2	4	4	10	1	1					2	2	1	2	2	2	2	2	1	1
312	Bartsham	2	2	9	13	1						2	2	2	2	2	2	2	2	2	2
313	Bartsham	2	3	3	8	1						2	2	1	0	2	1	2	0	1	0
314	Bartsham	1	1	3	5		1					2	2	2	2	2	2	2	2	1	2
315	Bartsham	1	1	6	8	1			1			2	2	2	2	2	2	2	2	2	2
316	Bartsham	5	2	2	9		1		1			0	0	0	0	0	0	0	0	0	1
317	Bartsham	4	3	1	8	1						2	0	1	1	2	2	0	1	1	0
318	Bartsham	2	3	1	6	1						0	0	0	0	0	0	0	0	0	1
319	Bartsham	4	2	4	10	1			1			0	1	2	1	2	2	1	2	2	0
320	Bartsham	1	2	2	5		1					2	2	2	2	2	2	2	2	1	2
321	Bartsham	4	4	2	10	1						2	2	2	2	2	2	2	2	2	0
322	Bartsham	2	1	2	5	1			1			2	2	2	2	2	2	2	1	1	2
323	Bartsham	5	7	4	16	1						2	2	2	2	1	2	2	1	2	2

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268	Shongphu	2	2	1	2	2	2	0	1	150				1	d	500		1	1
269	Rannjung	2	2	2	2	1	2	1	1	200				1	d	80		1	
270	Rangjung	2	2	0	0	0	0	0	1	60			1	d	80		1		
271	Phongmey	2	2	2	1	1	1	0	0					1	c			1	
272	Shongphu	1	1	2	2	2	2	0	1	150	1	1	1	1	d	150		1	
273	Rangjung	0	0	0	0	0	0	0	1	148				1	d	148		1	
274	Bartsham	0	0	0	0	0	0	0	0					1	c			1	
275	Bartsham	0	0	0	0	0	0	0	1	80	1			1	d	120		1	1
276	Galing	0	0	0	0	0	0	0	1	25				1	c	25		1	1
277	Rangjung	1	1	2	2	2	1	2	1	100				1	d	200		1	1
278	Khamdang	0	0	0	0	0	0	0	0			1		b	50	1		1	1
279	Tsenkharla	0	2	0	0	0	0	0	1	60				d	60			1	1
280	Tsenkharla	0	0	0	0	0	0	0	1	98				d	98			1	
281	Tsenkharla	0	0	0	0	0	0	0	0			1	1	c			1		1
282	Khamdang	0	0	0	0	0	0	0	0			1	1	b	500			1	1
283	Khamdang	0	0	0	0	0	0	0	0			1	1	b	500			1	1
284	Khamdang	1	2	2	2	2	1	1	0			1	1	c	30			1	1
285	Khamdang	0	0	0	0	0	0	0	1	47				d	47		1		
286	Khamdang	1	1	2	2	2	2	1	1	100			1	d	40		1		1
287	Khamdang	0	0	0	0	0	0	0	0			1		b	20	0.182		1	1
288	Tsenkharla	1	1	2	2	1	2	2	1	63				d			1		
289	Tsenkharla	1	1	2	2	2	2	2	1	75			1	d	35		1		1
290	Khamdang	2	1	2	2	2	2	1	0			1		b			1		1
291	Tsenkharla	1	1	2	2	2	2	0	1	100				d	150		1	1	
292	Tsenkharla	2	2	1	0	1	1	2	1	150				d	180		1		
293	T/Gang	1	0	0	0	0	0	0	1	75				d	75		1		
294	T/Gang	2	1	2	2	2	2	2	1	110				d	80		1		
295	T/Gang	2	1	2	2	2	0	0	1	70	1			d	100		1		
296	T/Gang	2	1	2	1	1	0	0	1	150	1	1		d	120		1	1	
297	T/Gang	2	1	2	2	2	2	0	1	57				d	70		1		
298	T/Gang	2	1	1	2	1	0	1	1	60	1	1	1	c	180		1	1	1
299	T/Gang	1	2	2	2	2	2	0	1	110	1	1		d	192		1	1	1
300	T/Gang	2	2	1	1	2	1	1	1	200				d	250		1		
301	T/Gang	0	0	0	0	0	0	0	1	100				d	250		1		1
302	Bartsham	0	0	2	2	2	1	1	1	27				d	70		1		
303	Radhi	0	1	2	2	1	2	1	1	65				d	60		1		
304	T/Gang	1	0	2	2	2	1	1	1	105	1			d	90		1		
305	Bartsham	2	2	2	2	2	2	2	1	35				d	35				1
306	Bartsham	2	2	2	2	2	2	1	1	50				d	50				
307	Bartsham	2	1	2	1	0	2	1	1	35				d	35			1	1
308	T/Gang	1	2	1	2	2	1	2	1	49	1	1		d	300		1	1	
309	T/Gang	1	1	2	2	1	2	0	1	125				d	450		1		
310	T/Gang	2	1	2	2	1	1	1	1	130	1			d	120		1	1	
311	Bartsham	2	2	2	2	2	2	2	1	35				d	35				1
312	Bartsham	2	2	2	2	2	2	2	1	35				d	35				1
313	Bartsham	0	0	0	0	0	0	0	1	35				d	35				1
314	Bartsham	2	2	2	2	2	2	1	1	50				d	50				
315	Bartsham	2	2	2	2	2	2	2	0			1		b	35	0.438			1
316	Bartsham	2	2	2	2	2	2	2	1	35				d	35		1		1
317	Bartsham	0	0	0	0	0	0	0	1	35			1	c	35				1
318	Bartsham	0	0	2	2	1	1	1	0			1		b	35	0.583			1
319	Bartsham	0	0	0	0	0	0	0	1	35				d	35				1
320	Bartsham	2	2	2	2	2	2	1	1	65				d	65		1	1	
321	Bartsham	0	0	0	0	0	0	0	0			1		b					1
322	Bartsham	2	2	1	2	2	1	1	1	35				d	35		1		1
323	Bartsham	1	2	1	1	1	0	0	1	35				d	35				1

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268	Shongphu		1		c	1		a	1	1	1	1	7	1.75			1	
269	Rannjung		1		c	1		a	1	1			2	0.2		1		1
270	Rangjung																	
271	Phongmey		1		c	1		a	1				16					
272	Shongphu		1		c	1		a	1		1		1.50	0.3	1			
273	Rangjung		1		c	1		a	1	1			4	0.8	1			
274	Bartsham	1			b	1		a	1	1			2					1
275	Bartsham		1	1	c	1		a	1				50	10	1			
276	Galing		1		c	1		a	1		1		6	0.857		1		
277	Rangjung		1		c	1		a	1		1					1		
278	Khamdang		1		c	1		a	1	1			84		1			
279	Tsenkharla		1		c	1		a	1		1							1
280	Tsenkharla		1		c	1	1	b	1		1				1			
281	Tsenkharla		1		c	1		a	1	1			2					1
282	Khamdang		1		c	1		a	1	1			5					1
283	Khamdang		1		c	1		a	1	1			5					1
284	Khamdang		1		c	1		a	1	1					1			
285	Khamdang		1		c	1		a	1	1			10	1.429	1			
286	Khamdang		1		c	1		a	1		1	1	8	1	1			
287	Khamdang		1		c	1		a	1		1	1	63					1
288	Tsenkharla			1	d	1		a	1				2	0.333				1
289	Tsenkharla		1		c	1		a	1		1	1	12	2	1			
290	Khamdang		1		c	1		a	1	1					1			
291	Tsenkharla		1	1	c	1		a	1	1			3	0.429	1			
292	Tsenkharla			1	d	1		a	1				2	0.4	1			
293	T/Gang			1	d	1									1			
294	T/Gang			1	d	1		a			1		2.50	0.227	1			
295	T/Gang			1	d	1												
296	T/Gang		1	1	d	1												
297	T/Gang		1		c	1		a	1				2.5	0.5	1			
298	T/Gang		1		c	1		a	1	1	1		5.50	1.1		1		
299	T/Gang		1	1	a	1	1	b	1				3	0.3		1		
300	T/Gang			1	d	1												
301	T/Gang		1		c	1		a	1	1			3	0.375		1		
302	Bartsham		1		c	1		a	1		1		3	0.75	1			
303	Radhi			1	d	1												1
304	T/Gang			1	d	1												
305	Bartsham		1		c	1		a	1				5	0.714				1
306	Bartsham			1	d	1		a	1	1	1	1	3	0.429	1			
307	Bartsham		1		c	1		a	1				3	0.333				1
308	T/Gang			1	d	1									1			
309	T/Gang		1		c	1	1	b								1		
310	T/Gang			1	d	1												
311	Bartsham		1		c	1		a	1	1			2	0.2				1
312	Bartsham		1		c	1		a	1		1		4	0.308				1
313	Bartsham		1		c	1		a	1				3	0.375				1
314	Bartsham		1		c	1		a	1	1	1		2	0.4	1			
315	Bartsham		1		c	1		a	1				6					
316	Bartsham		1		c	1					1		4	0.444				1
317	Bartsham		1		c	1		a	1				2.5	0.313				1
318	Bartsham		1		c	1		a	1				4					1
319	Bartsham		1		c	1		a	1				2	0.2				1
320	Bartsham		1		c	1		a	1	1	1		2	0.4	1			
321	Bartsham		1		c	1		a	1				4		1			
322	Bartsham		1		c	1		a	1				5	1				1
323	Bartsham		1		c	1		a	1				2.5	0.156				1

268	Shongphu
269	Rannjung
270	Rangjung
271	Phongmey
272	Shongphu
273	Rangjung
274	Bartsham
275	Bartsham
276	Galing
277	Rangjung
278	Khamdang
279	Tsenkharla
280	Tsenkharla
281	Tsenkharla
282	Khamdang
283	Khamdang
284	Khamdang
285	Khamdang
286	Khamdang
287	Khamdang
288	Tsenkharla
289	Tsenkharla
290	Khamdang
291	Tsenkharla
292	Tsenkharla
293	T/Gang
294	T/Gang
295	T/Gang
296	T/Gang
297	T/Gang
298	T/Gang
299	T/Gang
300	T/Gang
301	T/Gang
302	Bartsham
303	Radhi
304	T/Gang
305	Bartsham
306	Bartsham
307	Bartsham
308	T/Gang
309	T/Gang
310	T/Gang
311	Bartsham
312	Bartsham
313	Bartsham
314	Bartsham
315	Bartsham
316	Bartsham
317	Bartsham
318	Bartsham
319	Bartsham
320	Bartsham
321	Bartsham
322	Bartsham
323	Bartsham

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ANNEX 7

268	Shongphu
269	Rannjung
270	Rangjung
271	Phongmey
272	Shongphu
273	Rangjung
274	Bartsham
275	Bartsham
276	Galing
277	Rangjung
278	Khamdang
279	Tsenkharla
280	Tsenkharla
281	Tsenkharla
282	Khamdang
283	Khamdang
284	Khamdang
285	Khamdang
286	Khamdang
287	Khamdang
288	Tsenkharla
289	Tsenkharla
290	Khamdang
291	Tsenkharla
292	Tsenkharla
293	T/Gang
294	T/Gang
295	T/Gang
296	T/Gang
297	T/Gang
298	T/Gang
299	T/Gang
300	T/Gang
301	T/Gang
302	Bartsham
303	Radhi
304	T/Gang
305	Bartsham
306	Bartsham
307	Bartsham
308	T/Gang
309	T/Gang
310	T/Gang
311	Bartsham
312	Bartsham
313	Bartsham
314	Bartsham
315	Bartsham
316	Bartsham
317	Bartsham
318	Bartsham
319	Bartsham
320	Bartsham
321	Bartsham
322	Bartsham
323	Bartsham

268	Shongphu
269	Rannjung
270	Rangjung
271	Phongmey
272	Shongphu
273	Rangjung
274	Bartsham
275	Bartsham
276	Galing
277	Rangjung
278	Khamdang
279	Tsenkharla
280	Tsenkharla
281	Tsenkharla
282	Khamdang
283	Khamdang
284	Khamdang
285	Khamdang
286	Khamdang
287	Khamdang
288	Tsenkharla
289	Tsenkharla
290	Khamdang
291	Tsenkharla
292	Tsenkharla
293	T/Gang
294	T/Gang
295	T/Gang
296	T/Gang
297	T/Gang
298	T/Gang
299	T/Gang
300	T/Gang
301	T/Gang
302	Bartsham
303	Radhi
304	T/Gang
305	Bartsham
306	Bartsham
307	Bartsham
308	T/Gang
309	T/Gang
310	T/Gang
311	Bartsham
312	Bartsham
313	Bartsham
314	Bartsham
315	Bartsham
316	Bartsham
317	Bartsham
318	Bartsham
319	Bartsham
320	Bartsham
321	Bartsham
322	Bartsham
323	Bartsham

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ANNEX 7

268	Shongphu
269	Rannjung
270	Rangjung
271	Phongmey
272	Shongphu
273	Rangjung
274	Bartsham
275	Bartsham
276	Galing
277	Rangjung
278	Khamdang
279	Tsenkharla
280	Tsenkharla
281	Tsenkharla
282	Khamdang
283	Khamdang
284	Khamdang
285	Khamdang
286	Khamdang
287	Khamdang
288	Tsenkharla
289	Tsenkharla
290	Khamdang
291	Tsenkharla
292	Tsenkharla
293	T/Gang
294	T/Gang
295	T/Gang
296	T/Gang
297	T/Gang
298	T/Gang
299	T/Gang
300	T/Gang
301	T/Gang
302	Bartsham
303	Radhi
304	T/Gang
305	Bartsham
306	Bartsham
307	Bartsham
308	T/Gang
309	T/Gang
310	T/Gang
311	Bartsham
312	Bartsham
313	Bartsham
314	Bartsham
315	Bartsham
316	Bartsham
317	Bartsham
318	Bartsham
319	Bartsham
320	Bartsham
321	Bartsham
322	Bartsham
323	Bartsham

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ANNEX 7

324	Bartsham	4	2	2	8	1				2	0	1	2	2	2	0	0	0	2	1
325	Bartsham	4	3	6	13	1				2	2	2	2	2	2	2	2	2	0	0
326	Bartsham	3	2	1	6	1				2	2	2	2	2	2	2	2	2	2	2
327	Bartsham	5	3	1	9	1				2	2	2	2	2	2	2	2	2	2	2
328	Bartsham	2	1	5	8	1				2	2	2	2	2	2	2	2	2	2	2
329	Bartsham	2	2	3	7	1				2	1	2	2	2	2	2	2	2	2	1
330	Bartsham	1	2	4	7	1				2	1	2	2	2	2	2	2	2	2	1
331	T/Gang	1	2	6	9	1		1		2	2	1	1	2	2	2	2	1	2	2
332	T/Gang	2	2	1	5	1				2	2	1	1	2	2	1	1	2	2	2
333	T/Gang	2	2	1	5					2	2	1	1	2	2	2	1	1	2	2

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324	Bartsham	2	2	2	0	0	0	0	1			1				b			1
325	Bartsham	0	0	0	0	0	0	0	1	35			1			d	35		1
326	Bartsham	2	2	2	2	2	2	2	1	35			1			d	35		1
327	Bartsham	2	2	2	2	2	2	2	0			1			c			1	
328	Bartsham	2	2	2	2	2	2	2	1	35			1		d	35	1		
329	Bartsham	2	2	2	2	2	2	2	1	35			1		d	35		1	
330	Bartsham	2	2	2	2	2	2	2	1	35			1		d	35		1	
331	T/Gang	2	1	1	2	2	2	1	1	50	1		1		d	30	1	1	
332	T/Gang	2	1	2	1	1	1	1	1	40		1	1		d	35		1	
333	T/Gang	2	1	2	1	1	2	1	1	56			1		d	34	1		

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ANNEX 7

324	Bartsham	1		c	1		a	1	1	a	3	0.375		1
325	Bartsham	1		c	1		a	1		a	2	0.154		1
326	Bartsham	1		c	1		a	1	1	a	4	0.667		1
327	Bartsham	1		c	1		a	1		a	4			1
328	Bartsham	1		c	1		a	1		a	5	0.625		1
329	Bartsham	1		c	1		a	1		a	4	0.571		1
330	Bartsham	1		c	1		a	1		a	4	0.571		1
331	T/Gang	1		c	1		a	1		a	5	0.556	1	
332	T/Gang		1	d	1		a	1	1	d	5	1	1	
333	T/Gang		1	d		1	b							1

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ANNEX 7

324	Bartsham
325	Bartsham
326	Bartsham
327	Bartsham
328	Bartsham
329	Bartsham
330	Bartsham
331	T/Gang
332	T/Gang
333	T/Gang

