BHUTAN

Promoting Development in Remote Rural Communities
Acknowledgements

This booklet compiles stories from the field collected by the RRCDP team (Winston Dawes, Mio Takada, and Deepa Rai of the World Bank Group) in consultation with Dr. Kuenga Namgay and Jamyang Phuntsho Rabten of the Policy & Planning Division, Ministry of Agriculture and Forests, Bhutan.

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Translations

Chiogs   A cluster of villages
Drey     Local measurement bowl (1 Drey = 1.3 Kgs of Rice)
Dzongkhag District
Geog     A block in a District (consisting of several villages)

Abbreviations

CGI      Corrugated Galvanized Iron
DoF      Department of Forests
FAO      Food and Agriculture Organization
Ha       Hectares
Km.      Kilometer
MDG      Millennium Development Goals
Nu.      Ngultrum (Bhutanese currency)
PTT      Power Tiller Track
RRCDP    Remote Rural Communities Development Project
UN       United Nations
USD      United States Dollar
The Royal Government of Bhutan’s dedication to achieving Gross National Happiness keeps its programs focused on activities that also reduce poverty and promote shared prosperity. Bhutan made impressive progress toward the Millennium Development Goals (MDG), which places it in an optimum position to achieve the remaining Sustainable Development Goals. The clearest example of Bhutan’s dedication to development is its decrease in poverty from more than 23 percent in 2007 to just 12 percent in 2012—thereby achieving the MDG target of 15 percent.

Bhutan’s mountainous terrain is a fundamental constraint to growth and rural poverty reduction. The remaining challenge for poverty reduction lies in the remote rural areas of the country, which are cut off from markets and services as a result of poor road access. Since 2003, the Royal Government has constructed over 1,500 kilometers of farm roads and tracks, but more remains to be done.

The Royal Government of Bhutan wants to maximize the impact of its public expenditure to bring inclusive growth to even the most remote populations of the Himalayan nation. The objective of the 11th Five-year-Plan (2013–2018) is to achieve green economic growth, inclusive social development, poverty alleviation, and climate smart sustainable management and utilization of natural resources. To achieve these goals the Royal Government has set a growth target for the agriculture sector of 4% per annum. In these areas, the most important constraints to agriculture and natural resource productivity include:
The Remote Rural Communities Development Project (RRCDP) is designed to support the Royal Government’s goals by improving the living conditions and incomes in the country’s poorer and remote rural areas. The people who live in these areas rely on subsistence agriculture, but they still lack the roads, irrigation, technology, and productive infrastructure necessary to increase their links to the larger population and to improve their incomes and standard of living. RRCDP used poverty mapping to target project resources to the poorest rural areas in the country.

The project is focusing on six Southwestern and South Central Dzongkhags—Samtse, Haa, Chhukha, Dagana, Trongsa and Wangdue—working with 6440 rural households in 26 geogs (sub-districts) that have significant concentrations of poverty (see map).
“The project is achieving improvement in market access through investments in farm roads and marketing infrastructure. It is also increasing agricultural productivity and rural incomes through promotion of improved irrigation and agro-nomic practices and rehabilitation of productive assets for key commodities. And finally, community-led investments are improving the access of the poorest people to the critical and missing infrastructure in the selected areas.”

—Dr. Kueng Namgay, Deputy Chief of Policy and Planning Division, Ministry of Agriculture and Forests, and Project Director of RRCDP
Overcoming Obstacles to Productivity and Growth

RCDP's specific objective is to increase agriculture productivity and access to community assets in target households by improving their access to markets, irrigation, agricultural technologies, and community infrastructure. The project is achieving these goals by investing in:

Rural Infrastructure
- Rural Accessibility
- Irrigation

Community Marketing and Productive Infrastructure
- Community and Marketing Infrastructure
- Improving Productive Assets of Existing Producer Groups
Investing in Rural Infrastructure

RCDP invests in infrastructure to connect communities to larger roads and regional markets and to improve production potential through improved availability of irrigation. This component consists of two main sub-components: 1) Rural Accessibility and 2) Irrigation. In rural accessibility, the project is financing farm road development—including new farm road construction, landslide protection, and river crossing structures. For irrigation, the focus is on irrigation infrastructure rehabilitation and modernization.

For the economic uplift of communities in remote and rural areas of Bhutan, Remote Rural Communities Development Project (RRCDP), among other initiatives, will implement 49 irrigation schemes serving an area of 998 hectares in six dzongkhags (districts) in south-western and south-central Bhutan.
Getting Crops the Water They Need

The farmers of Wengkhang worked against odds to increase their rice productivity, however, lack of water kept yields at a low 200–300 drey. One of the major constraints was that their irrigation channel was unlined, so they lost water to seepage. RRCDP worked with these farmers to line 1.5 kilometers of the canal, which has increased the amount of water available for crops. The Wengkhang farmers manage and maintain the irrigation channel themselves. The farmers anticipate that the yields would now be around 600–800 drey.

This investment is an example of strong collaboration between the government and communities. The district office worked closely with the Wengkhang community to complete paper work for the project, and guided the community on the technical requirements for the investment.

Lesson for Implementation

The budget for this investment was not sufficient to line the entire canal, so a one-half kilometer portion at the water source was not cemented. Therefore, the problems of water loss and landslides continue. Farmers work together to clear that portion of the canal when it becomes blocked, but ultimately, they will need to line that final portion.

"RRCDP support has been really good. Before the channel was constructed, we didn’t have sufficient water for the crops, it used to be about this high (about a foot—showing with his hand) but now (points towards the land) you can see for yourself how well the crops have been. This is all because of the cemented irrigation channel which has increased the availability of water by minimizing water loss through leaching and percolation."

—Karma, Wengkhang channel beneficiary
The Wenkhong irrigation channel leading up to the paddy fields. This irrigation channel provides water for 53 households—benefiting roughly 300 individuals in the Wengkhang community.
Providing Water for People and Cardamom in Samtse

One of the most crucial elements of RRCDP is the involvement of community in investment planning and implementation. The Sernyagang community of Namgaychhoeling Geog in Samtse Dzongkhag has proven the success of this approach.

The community had a shortage of drinking water, especially during winter. People had piped water from a source 3 km away, but the source would shrink in winter, forcing people to fetch water from the river. In a participatory planning exercise, the community prioritized dual-use water provision to meet their drinking water needs and their need to irrigate the cardamom crop.

This investment will save time for women, who had to fetch water from the river for drinking, bathing, and laundry. In addition, it will benefit about 25 acres of cardamom area and allow for vegetable cultivation for self-consumption.

"With the irrigation channel being closer to households we have ample water now and we are grateful to the project as apart from drinking water, we can now irrigate our cardamom plants. Cardamom being the main cash crop, many plants died during the winter season and we had to replant the seedlings. The project provided us support for construction of a tank that can also be used to irrigate cardamom through pipes during the winter season as we were also provided with sprinklers and the cardamom fields are in and around our houses."
More Than Just a Power Tiller Track

With a budget of Nu. 556,000, a community of Pokri Dangra village opted for a power tiller track (PTT) from Sernyagang (KholaKharka) to Tsholingkhar (Pokhari Dara)—a 2.4 km access road in Namgyelchoeling Geog, Samtse Dzongkhag.

The community hired an excavator with the allocated budget and provided their own labor as in-kind contribution. The community also used their own vehicles for transportation of fuel for the machine.

A bridge over Larayni Khola was also built using local material. The road is not only suitable for power tillers but is also wide enough for other vehicles. The track took only 23 days to be constructed and it now benefits 40 households during the summer season.

Now that vehicles are available in the community, they are better able to get help during emergencies. The community now has two essential shops along the road to sell rice and other food. Many households have expanded the area under cardamom cultivation. Buyers can now come to the village to buy cardamom, and villagers can take their produce to surrounding areas like Tala, Pemaling and Zhemgang. This has brought additional income to these households which in turn has resulted in the construction of improved toilets, as bringing construction materials were previously unaffordable because of transportation costs. Some have even transported Corrugated Galvanized Iron (CGI) sheets and have changed their thatched roofs.
“The main benefit for us is the transportation of Cardamom which is the main cash crop. Without a road, transporting 40 kg Cardamom cost Nu. 500. We now pay only Nu. 2 per kg, allowing us to transport the same quantity for Nu. 80 only. At the same time, bringing all essential items (mainly food items) has become a lot easier. Earlier, people used to carry loads from the nearest Indian border market which took about 10 hours. We can now save time on travel and have time for our agricultural work.”
Community, Marketing and Productive Infrastructure

Component B covers investments in marketing and post-harvest infrastructure, critical community-level infrastructure, and investments identified by producers to increase agricultural productivity. It consists of two sub-components: 1) Establishing community and marketing infrastructure and 2) Improving productive assets of existing producer groups.

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<th>Community and Marketing Infrastructure</th>
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<tr>
<td>• Post harvest infrastructure</td>
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<td>• Marketing sheds and agroprocessing units</td>
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<td>• Mule tracks, foot paths, gravity ropeways, and foot bridges</td>
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<th>Improving Productive Assets of Existing Producer Groups</th>
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<tr>
<td>• Horticulture</td>
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Under the poultry scheme, beneficiaries like Dechen received Corrugated Galvanized Iron (CGI) roofing sheets, wire mesh, feeders, drinkers as well as cement and construction materials to build chicken sheds. 60% of the pullets’ cost was met by the project. Labor costs for construction and local materials were borne by the beneficiaries.
Dechen’s Poultry Enterprise

Women represent about 41 percent of all people employed in agriculture in the project area and about 29 percent of all households in the targeted geogs are headed by women. One such woman is Dechen, a soft-spoken, 31 year-old mother of three. She lights up when she talks about her poultry farm, and she has good reason to feel proud because she is the sole proprietor of a successful farm enterprise.

Dechen’s farm is a 10 hour drive on winding roads from Thimphu, and a 15-minute uphill trek from a motorable road in Langthel village in the Trongsa district in central Bhutan. Despite the remoteness, Dechen is doing well. She received 180 chickens provided by the RRCDP project. Using the income acquired from this batch of chickens, Dechen invested in buying 270 additional chickens. From the income from this new batch, she has already bought 300 more chickens. She makes about Nu 3500 (US $38) a month by selling eggs to nearby shops. When asked whether there is a strong market for the eggs from her farm, she answers with a timid smile: “My customers want more. They ask me to sell more eggs. I never have enough.” She has earned Nu 45,000 (US $684) net profit since she started her poultry farm a year and a half ago.

This poultry farm is the not the only source of income for Dechen. She also maintains a vegetable garden where she uses manure from her farm. However, what is intriguing about Dechen is not her hard work, or her daily struggle, but her ability to dream big in overcoming adversity. She wants to expand the farm and build her own house. She says that had there been more chickens available for purchase, she would have bought 700 already.

Having her own successful business has made her more self-confident and determined.

“I am happy with the generous support that I have received so far. For someone like me, it has been a great help to get by. By selling these eggs, I buy what I need for my daily needs and I have been able to provide for my children.

I want to build my own house on my own land as this is not mine. I want to give my children a higher education. I want to expand my farm and have more chicken in a bigger farm—near a motorable road for easy access.”
Om Maya’s Dairy

Om Maya Sharma and her family of five in Dophuchen Geog in Samtse were self-sufficient in rice and owned two cows, but they had no cash income. Mrs. Sharma applied to RRCDP’s dairy farming scheme and received one Jersey cross-bred cow at a 50 percent subsidized rate in June 2014 to bring her herd total to three cows.

However, RRCDP does not stop with just providing a productive asset. The project provides a package of goods that will make that asset productive—such as cement and CGI sheets to build a shed for the cattle, measuring jars and storing cans for milk, a butter churn, and barbed wire to fence pasture land.

Om Maya’s family now markets dairy products—milk, cheese, and butter—throughout the Geog. They can sell one ball of cheese for Nu. 20, and the proceeds go to purchase cattle feed. The family has a small land holding—only 60 decimal (about 0.6 acres) of dry land, so pasture has been an issue. As Om Maya reports, “Since we have less land, we have not been able to plant and fence pasture. I have demanded pasture seed and soon I will plant pasture in paddy field for about 15 decimal, which will be fenced.”

Her monthly income of Nu. 1800 has been an economic boom for the family. Another unanticipated outcome is that 12 households have built a bio-gas plant using their own resources, matched with Nu. 11,700 from the Royal Government of Bhutan.

Learning Lessons

Though the project has helped many households, some beneficiaries have faced difficulty with this scheme. For example, where the primary source of income is day labor and that have no land for pasture, households have to weigh the trade-off between managing an animal and earning a wage. Where the return on day labor is higher than the return on livestock,
this enterprise solution is not a viable option. For those families that can participate, there is
a need for more technical assistance to operate the cream separator provided by the project.
RRCDP will use these lessons to inform future beneficiary assessments and the design of
asset transfer and technical assistance.

In addition to these constraints, there are other aspects in management that needs to be
addressed, says Jamyang Phunthso Rabten, Monitoring and Evaluation Officer of the
RRCDP, Policy & Planning Division, Ministry of Agriculture and Forests: “Beneficiaries
need to learn about basic record keeping and maintaining production data as linked to the genera-
tion of income. We are missing that aspect. There have been trainings but it seems that those are not
enough. I feel it needs to be refocused and diversified. We also should be able to focus on the formula-
tion of groups and cooperatives as that way, it would be much better to market and sell the products.”

“This has been a great help to my household. I made a nice cow shed and have
two cattle along with one Jersey cross female calf. The cow gives 3–4 litres
of milk per day with good management (with concentrate feed). On average
we could produce 120 balls of local cheese and about 5 kg butter in a
month. The saving of Nu. 1800 has been good income for my
household and we use it mainly to purchase food items for the
family.”

—Mrs. Om Maya Sharma
Enhancing a Community Forestry Group in Dagapela

Bhutan's constitution requires a minimum of 60 percent of the country's land area to be covered by forests. This conserves the country's natural resources and prevents ecosystem degradation. As of 2011, Bhutan's total forest cover was recorded at 69.1 percent (FAO, UN).

RRCDP has supported 25 Community Forestry Groups comprising of 1,500 households on a cost-sharing basis to support production and value addition to wood and non-wood forest products. The project provided nursery materials while the groups provided labor to maintain the forests. The group first grows seeds in a nursery through a netting and planting facility provided by the project and then transfers them to the designated forest land. The groups decide on the species of plants with technical assistance from the Department of Forests and Park Services.

In a village in Gaserling, the SaeerTsho community forestry group members are dedicated to keeping the community forest well maintained and looked after. A total of 27 households are benefitting from the 5 hectare plantation of champ (a native species) to provide fodder in the short-term and for wood in the years to come. The forestry group also collects money from seedlings that they grow in the nursery. *“Money we collect from the nursery is useful in order to give out low interest loans within the community,”* says Sumchu Lhamo, one of the group members.
The group’s ownership of the forest and their dedication, despite the extra workload and delayed monetary returns, can be seen as a positive outcome. The case of Gaserling has also confirmed the importance of training and capacity building in motivating the community towards action for their own welfare. According to Lhamo: “We feel energetic and actually, it feels good to tend to our plants. These trees that you see are good for us. We had this scheme earlier as well but we didn’t do much as we didn’t have a good teacher and therefore we were not interested but now it’s all different.”

The credit for the new found zeal within the group goes to Geog Forestry Extension Officer, Karma Kelzang Oewazin. From the design phase to getting the seeds and planting them in the nursery, Karma’s support to the community group has been constant and highly productive. He says: “Some of the forestry group members don’t even have enough to eat at home and yet, they go to the nursery and work in the plantation.”

The plantation, completed a year ago, will take decades to mature until it can be fully utilized by the community. The knowledge that he has been able to plant in the group has been powerful: “This is for the generations to come—not just for us.” However, in the short-term, they can benefit from non-wood forest products such as wild mushrooms, bamboos, and sitting beehives that would provide them additional income.

The villagers tending to their community forest in Dagapela
A Sustainable Forest Enterprise for Gongdokha and Sektena Villages

The community of Gongdokha and Sektena villages of Gakiling Geog in Haa Dzongkhag collaborated in building a community forest office and sales counter. They have also formed a Community Forest Management Group to maintain 108 acres of forest. Ideas transferred to the community by the Dzongkhag Forestry Sector have helped raise awareness about the importance of community forests in villages.

RRCDP has supported this endeavor by providing building material, transportation support, and technical support while the community has contributed labor. The unit was completed in July 2015 and will be used to market community forest products—mainly timber—and as an office to issue permits and carry out daily routine work required to manage the forest.

The beneficiaries say: “Though we have not extracted any timber or other forest products yet, we feel that this office and counter will benefit us in long run for marketing the products as we need to store the products, mainly timber, cane ropes, and baskets.”

Forest seedling nursery in project village.
**RRCDP Project in Brief**

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<td>Project Completion</td>
<td>June 2018</td>
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<td>Total Project Investment</td>
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<td>Ministry of Agriculture and Forests, Thimphu, Bhutan</td>
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