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Validating the Culture of Agriculture: Farmers Groups and Organic Agriculture Mitigating Rural to Urban Migration in Bhutan

Emma Dosch
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Validating the *Culture of Agriculture*: Farmers Groups and Organic Agriculture Mitigating Rural to Urban Migration in Bhutan

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Asia, Bhutan, Punakha, Lobesa  
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Abstract

Agricultural occupations make up the largest proportion of Bhutan’s workforce. Over the past two decades the occupation has shrunk from 90% to 65% of Bhutan’s employment. The younger generation of Bhutan’s rural population is seeking livelihood opportunities in urban areas, leaving farms with labor shortages. The movement may compromise the identity and sustainability of Bhutan’s rural population and undermine the nation’s goals of Gross National Happiness (GNH) directed policy. Initiatives to retain and legitimize agricultural livelihoods are emerging inside and outside of government policy. Existing efforts are models of ways to reconnect educated individuals with the needs and values of rural farming communities, integrating diversified agricultural livelihoods into traditional structures. Farmers Groups and Cooperatives are being widely promoted throughout Bhutan and have the potential to maintain community agriculture interactions with, and valuation of the local landscape. Organic agriculture is an emerging alternative livelihood for educated individuals and new entrepreneurs to contribute to agricultural production, though in adapted ways. This study analyzes the possible effects of the urbanizing movement on the agricultural sustainability of Bhutan and efforts to creatively adapt traditional agricultural for a modernizing younger generation and country.
Acknowledgements

I am grateful to all who spoke with and hosted me (giving milk tea and zow) in Bhutan. I hope I was able to reciprocate a fraction of what I was given in generosity, willingness to share, and approachability.

The College of Natural Resources was a beautiful resource and home as I conducted my research. My thanks goes to the Director Dorji Wangchuck for hosting me at the college and Dr. Phub Dorji who greatly assisted with interview logistics and overall guidance. The lecturers, students and staff made my brief stay comfortable and inspiring. Thanks also to Benj Sinclair, who lent me his digital camera for documentation, mitigating my reluctance to use electronic technologies.

I would also like acknowledge the Royal University of Bhutan for their collaboration with SIT and their investments made to host and support myself, my three colleagues, and our projects.
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<tr>
<td>ABSD</td>
<td>Accelerating Bhutan’s Socioeconomic Development</td>
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<tr>
<td>CNR</td>
<td>College of Natural Resources</td>
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<tr>
<td>DAMC</td>
<td>Department of Agriculture Marketing and Cooperatives</td>
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<tr>
<td>DAO</td>
<td>Dzongkhag Agriculture Officer</td>
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<td>FAT</td>
<td>Focal Agriculture Teacher</td>
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<td>GNH</td>
<td>Gross National Happiness</td>
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<td>Genuine Progress Index</td>
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<td>HGC</td>
<td>Happy Green Cooperative</td>
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<td>Ministry of Agriculture and Forests</td>
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<td>National Organic Program</td>
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<td>SDC</td>
<td>Swiss Agency for Development and Cooperation (Helvetas)</td>
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Introduction

In March 2011 Bhutan saw the inauguration of its first old age home in Trashigang, supported by the district government.\(^1\) Tshering Tashi sees Bhutan’s first old age home as a symbol of elderly destitution; a response to those orphaned by rural to urban migration.\(^2\) The changes of urban migration are recognized by young and old Bhutanese, by city and rural dwellers alike, and by the highly educated and the barely educated; young people especially are drawn from their home villages to the magnetism of Thimpu’s office jobs, educational validation, and creature comforts. Agricultural occupations have decreased from over 90% two decades ago, to roughly 65% of Bhutan’s livelihoods.\(^3\) Closely correlated is Bhutan’s internal migration rate at 6% per year, the highest in South Asia.\(^4\) Although the traditional agrarian economy is slowly acceding to growth in other sectors, arguably a positive economic development, its drain upon rural communities goes beyond labor shortages and fallow fields. Traditional values, culture, and identity are preserved within Bhutan’s small farming communities. Other values of Bhutan’s holistic development strategy, Gross National Happiness, are at stake with pressures of urbanization. Bhutan’s geography limits mechanization and large scale production as a substitution for labor shortages and disappearing farms, forcing Bhutan to rely increasingly more upon imported food supplies.


\(^2\) Tshering Tashi, Interview with author, April 12, 2011.


In his well-known article *Many Questions, Few Answers*, Dzongsar Khyentse suggests that the nation develop in ways that creatively adapt tradition.\(^5\) Tradition should not stagnate and strangle Bhutan’s progress in a globalizing world, yet guide meaningful innovation. In a departure from conservative policy, two creatively adapted methods, organic agriculture and Farmers Groups, are being employed by various agencies, educational models, projects, and farms to validate and sustain agricultural livelihoods.

**Rural to Urban Migration**

With increasing education levels, younger adults are seeking jobs and opportunities in Thimpu (or other populated places) as relief from the hard labor and small incomes of agricultural work. Although Bhutan currently has the highest internal migration rate in Southeast Asia, urban to rural movement is not isolated only to Bhutan, or even Asia.\(^6\) Vishwambhar Sati describes the “exodus of the population” and “out-migration of youth” to Himalayan foothills and urban centers in Garhwal Himalaya, India resulting from a lack of economic opportunities in rural areas.\(^7\) Figure 1 illustrates the net migration for each *dzongkhag* in 2005; 28% of migrants settled in Thimpu while the next urban destinations, Paro and Phuntsholing received 6% of migrants (RGoB, “Rural to Urban Migration,” viii).\(^8\)

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Kunzang Choden illustrates popular belief and its collision with culture in *Tales in Colour and Other Stories*, stories of women in globalizing Bhutan. In “I Won’t Ask Mother” Choden describes one woman’s admiration of Chimme, “she…has a good salary…she has the prestige of working in an office; she has a place in society.”\(^9\) A character in “These Things Happen” believes that “children who go to school do not work on their parents’ farm. They do better things, work in an office, drive a car, run a shop…but going back to work on a farm would...

be disgraceful.” The same theme manifests in “Look at Her Bellybutton”, where the bellybutton piercing acquired by a farmer’s daughter “reminded her that she was special; she had her connection to another life beyond the mundane life in a village.” Ideas of a glamorous and honorable life outside of rural farming communities (and dullness to those who stay) are woven into Kunzang Choden’s reflection upon the plight of ordinary women in Bhutanese society. Similar themes emerge in Dzongsar Khyentse’s film Travellers and Magicians. Even with the prestige of a civil service job, Dondup, the main character, hopes to go “to the land of my dreams”, the United States. Perhaps this is a commentary on the insatiability of desire: the power and prestige of his civil service job (although in a rural village) fails to alleviate his aspirations for a more glamorous life. Tashi, from the dream tale embedded in Travellers and Magicians, also expresses his desire to ascend his mundane village life: “don’t you want to get out of here.”

Education is intricately connected to perceptions of rural and urban employment. Young people, ages 15-29, have the highest rates of urban migration at 45%. Jigme Nidup and Pema Lhendrup attribute this movement to the pursuit of educational institutions and job seeking. Deki Lhamo describes how “teachers used to beg for students to come, now parents beg for students to stay home.” Often school-going children board at their schools, traveling from their homes to other dzangkhags or more populated areas, especially for secondary school education. By the time students finish class 8 or above they have already been distanced from their home.

10 Ibid., 43.
11 Ibid., 59.
12 Travellers and Magicians, DVD. Directed by Khyentse Norbu (2003; Zeitgeist Films).
13 Ibid.
15 Ibid.
16 Deki Lhamo, Interview with author, April 19, 2011.
villages and feel too highly educated for rural livelihoods.\textsuperscript{17} In 2005, 43% of migrants had completed higher secondary or a university degree, 20% had completed lower secondary, and 37% had no formal education, indicating that the majority of migrants have higher educational attainments.\textsuperscript{18} Of these, almost one third, 31%, of urban migrants are engaged in civil service jobs after moving to the towns/cities. 26% are employed with private businesses, and 21% are housewives.\textsuperscript{19} Lham Dorji, a Bhutanese scholar, has studied youth education, employment, experiences and aspirations. An association between education and success, job dignity, and “white collar” occupations is almost universal among younger people.\textsuperscript{20} From informal conversations with students at the College of Natural Resources and Sherabtse College, most aspire to join the civil service. In the article \textit{Many Questions, Few Answers}, Dzongsar Jamyang Khyentse suggests that the perceived status of civil service jobs may glamorize it over other types of work.\textsuperscript{21} Status icons of \textit{drig lam namzha}, how citizens should dress in public and behave in formal settings, reinforce many of the perceived benefits of government workers.

Income is another motivating factor for Bhutanese, although unendorsed by Gross National Happiness (GNH) policy. The National Labor Force Survey from 2004 reports that 79% of total respondents and 75% of rural respondents wanted to change their job for reasons of income.\textsuperscript{22} Arcane perceptions of job prestige as well as more tangible economic benefits are motivating factors for Bhutan’s younger generation to seek “white collar” livelihoods.

\textsuperscript{17} Damchu Wangdi, Interview with author, April 13, 2011.
\textsuperscript{18} RGoB, Ministry of Agriculture and Forests. \textit{Rural to Urban Migration}, 24.
\textsuperscript{19} Ibid.
\textsuperscript{21} Khyentse, \textit{Many Questions}, 9.
Those who are less educated or not lucky enough to secure a government or office job often encounter unemployment. Youth under 24 years account for 45% of the unemployed population.\textsuperscript{23} The presence of this unemployed population was felt personally by Sangay Rinchen, as many of his close friends in Thimpu had valuable talents but were not motivated and unproductive (April 11, 2011).\textsuperscript{24} He reflects, “most of them want to be in the office, not matter how much they are paid.”\textsuperscript{25} Issues of youth unemployment and the creation of creative meaningful livelihoods is the inspiration for Sangay Rinchen’s work with Happy Green Cooperative. Deki Lhamo is the only one of her schoolmates who returned to her village and observes that it is “better to stay in the village, they (her friends) are going out and not having jobs, not having money, taking drugs, being with bad company.”\textsuperscript{26}

 PUSH” and “pull” factors drive either end of migration, with existing village conditions a focus for the government’s strategy for rural development and consequently, rural to urban migration. To combat these “push” factors, a rigorous campaign for electrification and roads are connecting rural villages. Roads are intended to bring agricultural products closer and more accessible to farmers, yet they may have a reverse effect of making perceived urban opportunities more accessible.

Decentralization is a common urbanization alleviation strategy applicable to all agencies within the government. RUB has prioritized this goal, evident in the imminent move of the Institute of Language and Culture from Thimpu to Trongsa. Their model of decentralization has spread their 11 colleges among 8 dzongkhags. However, in other areas, this policy is still fighting the magnetism of Thimpu. When questioned why the youth Entrepreneurship

\textsuperscript{23} Damchu Wangdi, Interview with author, April 13, 2011.
\textsuperscript{24} Sangay Rinchen, Interview with author, April 11, 2011.
\textsuperscript{25} Ibid.
\textsuperscript{26} Deki Lhamo, Interview with author, April 19, 2011.
Promotion Training offered through the Department of Employment is given in Thimpu, rather than one of the department’s targeted eastern dzongkhags, Damchu Wangdi explained that this move was recently brought under consideration in a coordinating meeting. Commitment to a policy of decentralization in Thimpu could have a strong impact on placing civil service workers (which are a majority of emigrated urban livelihoods) in more rural areas, where consequently, other business opportunities would follow. Although this policy has exciting prospects, Tashi has observed that new buildings and expansion for government agencies within Thimpu outweigh those developing outside the city.

It is interesting to note that the 2005 report, “Rural to Urban Migration in Bhutan” was prepared and published by the Ministry of Agriculture. Although every ministry and agency within the government has its own strategy and role in addressing rural to urban migration, agriculture has the most prominent stake. The RNR sector identifies actions to maintain current levels of employment in rural areas and to generate new employment to “establish agriculture as the basic sector for sustaining the country’s economy.” The Ministry of Agriculture plans to make agricultural occupations more economically satisfying and improve the image and social status of farming by promoting technologies and infrastructure. It aims to support economic environments for investment and employment in the sector through trainings and equitable distribution of land through expansion, and the promotion alternative employment. However, these goals are synonymous with goals of the MoA itself, with no specific application for rural to urban migration.

27 Damchu Wangdi, Interview with author, April 13, 2011.
28 Sonam Tashi, Interview with author, April 7, 2011.
29 RGoB, Ministry of Agriculture and Forests. Rural to Urban Migration, 7.
30 Ibid., 45.
Agriculture

Bhutan’s mountainous terrain and remote communities have grounded a base of traditional subsistence, labor intensive agriculture. In 1987, 9 out of 10 Bhutanese were engaged in agricultural livelihoods.\(^{31}\) The 2009 Labor Force Survey Report pegged both agriculture and forestry occupations as 65% of total employment.\(^ {32}\) 95% of this number is either self-employed or unpaid family workers, indicating that most agricultural production still takes the form of small family farms.\(^ {33}\) Only 7.8% of the landbase is arable, with the average landholding at roughly 2-3 acres.\(^ {34}\) From his childhood, Bakta Bdr. Shangshon remembers the laborious process for extracting mustard oil from mustard seeds, sustaining villages’ cooking needs (along with butter) until the convenience and access to imports of Indian soybean oil with modern road systems.\(^ {35}\) In many places traditional grains, pulses, and vegetable crops have been substituted by imported products. Road systems, intended to make rural places more connected to markets and conveniences, have created a new dependence on imported products.

Bhutan depends heavily upon imported food products to meet its consumption needs. The most important imports are rice, cooking oils/fats, and beverages (alcoholic), 74% of which is supplied by India.\(^ {36}\) Half of the nations rice, a vital staple of the Bhutanese

\(^{31}\) Young, *Agricultural Changes in Bhutan*, 173  
\(^{33}\) Ibid.  
\(^{34}\) Sonam Tashi, Interview with author, April 7, 2011; Tobgay, Sonam. *Small Farmers and the Food System in Bhutan* (Thimpu: MoA, 2005).  
\(^{35}\) Bakta Bdr. Shangshon, Interview with author, April 7, 2011.  
diet, is cultivated domestically. The Ministry of Agriculture would like to raise rice self-sufficiency to 65% as one of its food security goals. Imports have grown by 10% per year in the past decade, while exports have kept up at a 9% yearly growth rate.

Bhutan’s fourth king, HM Jigme Singye Wangchuck, adopted initiatives to promote potato, citrus, and cardamom exports in the 1970’s. These products, including apples, are still Bhutan’s biggest agricultural exports, with production concentrated in specific areas of the country.

The political scene for agriculture is subsistence to market driven farming, cultivation of low volume, high value products, diversification, mechanization, and the expansion of farmers groups and cooperatives for marketing. Extension services reach farmers through extension agents in each geog of the country. Each dzongkhag has one District Agriculture Officer and Assistant Dzongkhag Officers who connect each district and its geogs to the Department of Agriculture.

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37 Ibid., 3.
38 Mahesa Ghimiray, Interview with author, April 8, 2011.
39 RGoB, Ministry of Agriculture and Forests and Policy and Planning Division, Agricultural Trade in Bhutan, xiii.
40 Ura, Karma, Leadership of the Wise: Kings of Bhutan (Thimpu, 2010), 86.
41 RGoB, Ministry of Agriculture and Forests and Policy and Planning Division, Agricultural Trade in Bhutan, 9.

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Agriculture. There are several Research and Development Centers throughout the country to address regional needs and carry out national mandates.

*Effects of Rural to Urban Migration on Agriculture*

Just above the market in Lobesa is the seven house village of Gamakha, surrounded by paddy and vegetable gardens for its families. One of seven siblings, Namgay Pem went to primary school until class two and then stayed with her parents at in Gamakha.\(^4^3\) Namgay is the only one of her siblings carrying on the farming tradition of her parents as her primary livelihood. She lives in the same house she grew up in with her elderly mother and younger sister, Kezang Wangmo. Kezang has returned to Gamakha after completing class 10 and working elsewhere. She has a job as a lab technician at the local secondary school, joining her sister farming in the afternoon, and making *mekhu* (homemade rice cracker) several evenings a week for extra income (sold to the market in Lobesa). In the winter the sisters grow enough surplus vegetables to sell at the market in Thimpu. However, paddy cultivation consumes their summer months and growing only enough vegetables for their own

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\(^4^3\) Namgay Pem and Kezang Wangmo, Interview with author, April 22, 2011.
consumption. Their other five siblings are studying or have jobs in other parts of Bhutan, visiting Gamakha for holidays.

Dema lives nearby in Wangdue Phodrang on her farm in Nahi geog.\textsuperscript{44} Dema has 5 children, four of whom are studying in Thimpu or abroad, and one daughter still attending primary school from their home. Dema rents much of her land to another farmer because, with her children away, she does not have enough labor to cultivate her landholding. She hopes they will return after their studies, but leaves the decision with them. Similarly, farming women from both Nabesa and Habesa hope that at least one of their children will decide to continue working on their farms, although many of the younger generation are already away for further study.

Namgay, Kezang, and Dema’s families are not uncommon. The most visible challenge faced by these women is a shortage of labor. Without Namgay and Kezang’s siblings helping on the farm, they are not able to cultivate as many fields. Dema has resorted to renting her land. Dema’s neighbors are worse off: three elderly people, one blind and one deaf.\textsuperscript{45} Failing farms and disappearing farmers threaten the health of rural farming communities as well as Bhutan’s own internal agricultural sustainability.

The most prominent effects of urbanization upon agriculture are labor shortages and fallow land. Perceived effects of rural to urban migration at the household level are often related to agriculture, with 47\% of respondents from a MoAF report citing a shortage of farm labor and 9\% reporting fallow land.\textsuperscript{46} Geog authorities observed the effects of urban migration upon agriculture as a decrease in agricultural production from labor shortages (30\% of respondents), crop damage from wildlife (20\%), slowed development activities (18\%), loss of cultural values

\textsuperscript{44} Dema, Interview with author, April 19, 2011.
\textsuperscript{45} Ibid.
\textsuperscript{46} RGoB, Ministry of Agriculture and Forests. \textit{Rural to Urban Migration}, 31.
and weakening family cohesion (15%), and old age destitution (7%). Chhimi Dorji, director of the Rural Development Training Center in Zhemgang, observes that farms are only being kept up by elderly people, translating to expensive farm labor, with Zhemgang dzongkhag as no exception. 48

Kinley Dorji, Agriculture Extension Officer of Kabesa Geog in Punakha, sees youth out-migration and resulting labor shortages as pushing development of agricultural mechanization. 49 It is also evident that mechanization is only possible to the extent that Bhutan’s mountainous terrain will allow. The World Food Program describes the prospects of farm mechanization in Bhutan: “Farm mechanization has the potential to enhance the economic efficiency of farms, alleviate farm labor shortages, reduce the drudgery associated with farming, and improve the image of farming, thereby reducing rural to urban migration. However, farm mechanization is limited by the rugged topography, small landholdings and lack of funds.” 50 Vandana Shiva is wary of mechanization as a viable option, having witnessed Punjabi farmers launched into debt by tractor purchases that promised economic validation. 51

The effects of rural to urban migration to agriculture surpass fallow land and labor shortages. The migration compromises Bhutan’s food security and its celebrated values of Gross National Happiness (GNH). The value of agriculture and rural livelihoods is present within each pillar of GNH: equitable and sustainable socio-economic development, preservation and promotion of culture, conservation of the environment, and good governance. Vibrant rural communities, cultural diversity and resilience, biophilic human-environment relationships, meaningful employment, and food autonomy are jeopardized as populations drain from rural

47 Ibid.
48 Chhimi Dorji, E-mail message to author, May 3, 2011.
49 Kinley Dorji, Interview with author, April 4, 2011.
50 Sandrup Jongkhar Initiative, Profile, 42.
51 Ibid., 43.
areas. The Samdrup Jongkhar Initiative has embraced GNH values as the goals of the movement’s efforts, naming it “GNH-based development.” SJI has recognized the intrinsic value of agriculture and rural populations through the lens of GNH policy, development, and goals. When Bakta Shangshon remembers changes in his home village from dependency upon laborious mustard oil production to a new reliance on imported soybean oil, he sees a loss of social capital, rural identities and traditional culture. Although preservation of the environment is a stated priority of the nation, Focal Agriculture Teacher Sonam Gyeltshen sees a connection between environmental preservation and direct experiences with nature. An urbanizing population with few meaningful connections to nature may be unable to embody values of environmental preservation. Thimpu businessman Tshering Tashi observes that community cohesion in rural areas do not translate to urban centers like Thimpu. Many wealthy urban dwellers aspire to return to villages for vacations or retirement to reconnect with community reciprocity and natural serenity.

In the whirlwind of rising food prices, India cut off all rice exports in April 2008 to stabilize domestic food accessibility. Two weeks later, amidst soaring rice prices in Bhutan, India lifted the ban to Bhutan “in view of the cordial and friendly relationship between the two countries.” However brief, the incident was a wake-up call to Bhutan’s reliance upon Indian imports and, in response, the MoA further prioritized its food security goals in its Triple Gem

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52 Sandrup Jongkhar Initiative, Profile, 3.
53 Bakta Bdr. Shangshon, Interview with author, April 7, 2011.
54 Sonam Gyeltshen, Interview with author, April 5, 2011.
55 Tshering Tashi, Interview with author, April 12, 2011.
approach.\textsuperscript{58} Although Bhutan currently relies on imported rice for 53\% of its consumption, the Ministry would like to set their rice self-sufficiency target at 65\%.\textsuperscript{59} In connection to farming livelihoods, Chhimi Dorji writes that since the majority of rural farmers are self-sufficient in their food supply, as the farming population decreases, Bhutan’s population will become increasingly dependent on food imports.\textsuperscript{60}

Limited land holdings are another threat to food security in Bhutan. With increasing population comes a decline in average land holding size, putting pressure on the survival of small farmers and the agriculture sector itself.\textsuperscript{61} Sonam Tobgay cites the effects of small land holdings as a limiting factor to large-scale agricultural production in Bhutan.\textsuperscript{62} Additionally, as households disperse to urban areas, land holdings become fragmented, decreasing average farm size.\textsuperscript{63} CNR Lecturer Sonam Tashi sees the average 2-3 acre land holding as insufficient to viably support farming households.\textsuperscript{64} Land requirements should be assessed by how many acres can support how many people, rather than per household, as to recognize variability within household membership. Agricultural livelihoods will invariability be limited by Bhutan’s population and its amount of arable land, excess population will be forced into non-agricultural livelihoods.\textsuperscript{65}

**Organic Agriculture**

A large portion of Bhutan’s agriculture is “organic by default, as expensive chemical fertilizers and pesticides have not been adopted by rural farmers still following the farming

\textsuperscript{58} Mahesh Ghimiray, Interview with author, April 8, 2011.
\textsuperscript{59} Ibid.
\textsuperscript{60} Chhimi Dorji, E-mail message to author, May 3, 2011.
\textsuperscript{61} Tobgay. *Small Farmers*, 3.
\textsuperscript{62} Ibid.
\textsuperscript{63} Sandrup Jongkhar Initiative, *Profile*, 41.
\textsuperscript{64} Sonam Tashi, Interview with author, April 7, 2011.
\textsuperscript{65} Ibid.
traditions of their ancestors. Chemical fertilizers and pesticides are imported into Bhutan, as there is no domestic production, nor are there subsidies to make the chemicals more available for farmers. The result is traditional soil-friendly methods of soil fertility management remaining intact and affordable.  

Tshering Dema, Agriculture Extension Agent for Baap Geog in Punakha, describes the use of chemical fertilizers or pesticides as prescriptive measure sought by some farmers if faced with a specific pest or disease. Farmer Namgay Pem in Gamakha, Punakha never uses chemicals on her crops, even though she does not own any livestock, she buys manure from her neighbors. Similarly, farmers in Nabesa, Nahi Geog, Wangdue-Phodrang, don’t use any chemical fertilizers or pesticides but do collect dung and animal bedding for compost.

The National Organic Program emerged out of a 2003 trial program for organic assessments however, without any political standing, the program faced challenges initiating their goal. The Ministry of Agriculture recognized the value of the trial’s efforts and mandated the national program with a framework for growth in the organic sector. Recently, the government has been publically announcing its goal of a 100% organic Bhutan. The National Organic Program makes large investment in organic trainings for interested farmers. After trainings, the farmers are asked to show interest to NOP for further pursuing organic. Only then will the program start support slowly and assist the farmers with market connections.

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67 Tshering Dema, Interview with author, March 17, 2011.
68 Namgay Pem, Interview with author, April 22, 2011.
69 Group of Women Farmers from Nabesa. Interview with author. April 20, 2011.
70 Jigme Thinley, Public Statement, March 12, 2011. Jigme Thinley, the Prime Minister, gave this address at the launch for Samdrup Jongkhar Initiative.
71 Kesang Tshomo, Interview with author, April 11, 2011.
In addition to trainings facilitated by extension agents or NOP itself, Kesang Tshomo, Coordinator of NOP, sees the potential for organic methods to be integrated into non-formal education.\(^{72}\) Currently, non-formal education is conducted through the vehicle of conventional agricultural knowledge, which could easily be tailored for organic methods. School Agriculture Programs are also a tool for education the younger generation of Bhutanese in organic farming methods. The National Organic Program has developed modules for instruction at CNR, where a B.Sc. in Organic Agriculture is one of the College’s goals for the future. Bhutan currently has 19 organic Farmers Groups in 16 dzongkhags, each varying in size and official registration status.\(^{73}\) Organic methods are still reaching the ears of ordinary farmers. Farmers in Gamakha and Nabesa had never heard of the term “organic”, however farmers from Habesa, Nahi Geog, Wangdue-Phodrang, had heard of organic methods from a training given by their local extension office.\(^{74}\)

One of the hardest and most expensive challenges faced by NOP is organic certification.\(^{75}\) Expensive and impractical certifications are often responsible for strangling farmers in other places, a policy that NOP wants to avoid. Organic farmers are reliant on foreign inspectors to approve products for competitive international organic markets. NOP is working on developing a Bhutan-wide organic certification system with affordable and accessible inspections.\(^{76}\) Kesang Tshomo imagines traceability within the certification by acknowledging the dzongkhag, geog, and farmers group (if applicable) that cultivated the product. In this way, the certification gives the group ownership of the product and validation of their work. This

\(^{72}\) Ibid.
\(^{73}\) Ibid.
\(^{75}\) Kesang Tshomo, Interview with author, April 11, 2011.
\(^{76}\) Ibid.
aspiration matches the goals of SJI to develop a peer certification of organic produce that markets products with an “Organically Grown in Samdrup Jongkhar” label.\textsuperscript{77}

In addition to training farmers and certifying products, NOP supports connections between the farmer and consumer. Bio Bhutan and Happy Green Cooperative are both engaged in this work, buying from farmers and farmers groups throughout the country and selling their products to a domestic Thimpu-based market. Forouk Jiwa, Director of Honey Care Africa in Kenya, describes his role as a social enterprise model as, “making linkages to the market is my number one priority.”\textsuperscript{78} Honey Care balances commercial and social focuses to promote environmental, social, and economic value generation. The result is business partnerships with small-scale farmers owning less than two acres of land, without roads, communication, or infrastructure. The business model reflects a focus on sustainable rather than large scale production and social development values rather than economic. Forouk Jiwa sees social enterprise models as “key drivers for community-based agriculture.”\textsuperscript{79} Similarly, Bio Bhutan and Happy Green Cooperative function as important components for validating and supporting community agriculture.

\textit{Farmers Groups and Cooperatives}

For centuries farming communities in Bhutan have formed informal associations and groups for the mutual benefits of its members. Development organizations, notably Helevetas, promoted community forestry groups in the early 1990’s with little interest for adoption from the

\textsuperscript{77} Linda Pannozzo, Interview with author. April 12, 2011.
\textsuperscript{79} Ibid.
government. Although groups were formed, especially for community forestry, they were dependent upon the foreign projects for human and financial resources. There are varying degrees of success among these projects. Years later, government took an interest in the potential of cooperatives for rural development and self-governance, and the Cooperative Act, developed by a foreigner, was introduced to the legislature, taking five years to pass for approval. After a rocky start, in 2009, Farmers Groups and Cooperatives within Bhutan were given legal framework for registration in the Cooperative (Amendment) Act of Bhutan. One year later, registration guidelines were clarified in the Cooperative Rules and Regulations of Bhutan and the Department of Agriculture Marketing and Cooperatives was created to administer the Act.

Under the Act, Farmers Groups are defined as “A group of not less than three members deriving economic benefits from one or more economic enterprises related to Renewable Natural Resource Sector.” A cooperative is similar in structure, yet it must have a minimum of 15 members and be responsible for a bank account. Members for Farmers Groups and Cooperatives must be Bhutanese citizens and be from different households. Benefits for Group and Cooperative formation extend not only to its members, but to the rural communities that support them. Membership is marketed as stabilizing and/or increases farm income, fostering connections and competition within the market, improving product quality, provides legal support, developing local leaders and democratic associations, and sustaining agricultural

80 Thupten Sonam, Interview with author, April 6, 2011.
81 Ibid.
83 Ibid.
production on a local level\textsuperscript{84}. Benefits to the local community are quantified as increasing the income of the community and making available more goods and services to the locality.

Currently, DAMC records 24 registered Farmers Groups and 6 Cooperatives. Among Livestock, Forestry, and Agriculture, Phub Dem estimates that there are approximately 500 unregistered groups identified on the dzongkhag level.\textsuperscript{85} These groups were formed before legal structure was in place, yet now DAMC is targeting these groups for official registration. The 10\textsuperscript{th} Five Year Plan aims for 250 registered agriculture Farmers Groups alone by the end of the plan in 2013. Even more ambitious is the target of 500 agriculture Farmers Groups laid out in the Accelerating Bhutan’s Socio-Economic Development (ABSD) initiative from the Gross National Happiness Commission.\textsuperscript{86} Thupten Sonam, lecturer at the College of Natural Resources, is concerned that intense pressure to form and register groups could compromise their intention, cohesion, and sustainability.\textsuperscript{87} He feels that group formation should be a slow process that ensures genuine and committed group connections; that two healthy committed farmers groups are much more valuable than ten hastily-formed, uncommitted groups.

DAMC is working on finding financial resources to provide incentives for the formation of Farmers Groups and Cooperatives.\textsuperscript{88} Thupten Sonam imagines that financial incentives for member participation could be a trap for commitments among members.\textsuperscript{89} Individual members and the overall group must want to be involved for genuine reasons rather than any incentive-based motivation. Currently, a ten-year tax holiday is offered for cooperatives established

\textsuperscript{84} Ibid., 7.
\textsuperscript{85} Phub Dem, Interview with author, April 13, 2011.
\textsuperscript{86} Ibid.
\textsuperscript{87} Thupten Sonam, Interview with author, April 6, 2011.
\textsuperscript{88} Phub Dem, Interview with author, April 13, 2011.
\textsuperscript{89} Thupten Sonam, Interview with author, April 6, 2011.
outside Thimpu and Phuentsholing or for commercial farming enterprises established between 2010-2015, even extended another five years if organic.90

Groups and Cooperatives are provided with capacity building in business management and governance from its local agricultural extension officer. DAMC describes modules for guiding the formation of Farmers Groups and Cooperatives at the College of Natural Resources, however the school does not cover these skills in their Communication and Extension course.91 A common problem faced by forming groups is a lack of human resources for guidance in its development. Extension Agents are educated with technical knowledge and skills, yet lack training for social group formation and development.92 In addition, to effectively facilitate group formation and cohesion, the extension agent must be available for a sustained time commitment, which strains their regular job duties.93 “Lack of vision, leadership, and managerial ability” are also acknowledged as common challenges for cooperatives and groups.94

Domzang, the District Agriculture Officer for Wangdue-Phodrang dzongkhag, could identify a farmers group in almost every geog within his dzongkhag, however the groups have a very mixed success rate.95 Limited education, funding, and commitment compromise the vitality of groups within Wangdue-Phodrang. Choney Zangmo, the extension agent for Bjena Geog in Wangdue-Phodrang, sees these symptoms within her geog’s banking group, yet sees no clear remedy.96

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90 RGoB, Benefits in Registration, 15.
91 Phub Dem, Interview with author, April 13, 2011.; Thupten Sonam, Interview with author, April 6, 2011.
92 Thupten Sonam, Interview with author, April 6, 2011.
93 Ibid.
94 RGoB, Benefits in Registration, 8.
95 Domzang, Interview with author, April 8, 2011.
96 Choney Zangmo, Interview with author, April 8, 2011.
**Programs and Initiatives**

Countless programs and initiatives are related to, and certainly influencing, rural to urban migration in Bhutan. The programs highlighted incorporate the potential of Farmers Groups and/or organic farming as an integral component of their mission. These methods embody creative adaptations to tradition as endorsed by Dzongsar Khyentse. In its own way, each project aims to validate agricultural livelihoods and thus mitigate rural to urban migration.

**Bio Bhutan**

Bio Bhutan began seven years ago with support from the Swiss-Bhutan Development Agency, Helvetas. They market 13 different organic products, supplied through close ties with community forestry and farmer groups across the country. Bio Bhutan works closely with the Ministry of Agriculture and Forests for connections with already established lemongrass oil, ginger, turmeric, and honey groups. In Irmela Krug’s experience group formation only happens when there is a market and Bio Bhutan acts to connect these producer groups to accessible markets. Bio Bhutan has invested in market pockets for lemongrass oil, tees, honey, spices, soaps, and cordyceps by processing organically grown and sustainably harvested materials into marketable products. The international market for these products is highly sophisticated and difficult for Bio Bhutan to participate in competitively. The company has been turning their focus from this market to the domestic market. In 2008, 16% of their sales were domestic, rising to 35% in 2009, and 44% in 2010. Roughly half of their domestic sales are for a growing

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97 Irmela Krug, Interview with author, April 11, 2011.
99 Irmela Krug, Interview with author, April 11, 2011.
100 Ibid.
Bhutanese middle class and half for tourism (in handicraft shops and hotels).\textsuperscript{102} They will continue marketing towards the domestic market to achieve the greatest economic grow and sustainability for their company and their producer groups. Bio Bhutan facilitates a Local Capacity Building Program through the Netherlands Development Organization (SNV) to train their affiliated groups for quality and efficiency in production and processing.\textsuperscript{103}

\textit{Happy Green Cooperative}

Sangay Rinchen, the visionary behind Happy Green Cooperative (HGC), has always felt strongly about issues of rural to urban migration.\textsuperscript{104} A graduate of the College of Natural Resources, Rinchen wanted to find a way for youth unemployment, challenges faced by farmers, and the government to collaborate. His first venture was with Happy Valley Youth, where unemployed youth were mobilized to share their experiences and seek meaningful, creative endeavors, often through connections with the government and other groups.

Happy Green Cooperative incorporates the youth issues of Happy Valley Youth and resources within the government, yet goes a step further to connect with farmers.\textsuperscript{105} Youth members of (HGC) operate Happy Green Designs, which promotes eco-friendly products, with notable success disseminating reusable canvas bags to Thimpu. The Happy Green Organic Restaurant markets organic/natural food and beverages to Thimpu consumers. The Happy Green Organic Farm Store sells organic and natural produce and foods near the weekend market in Thimpu. The final component of the cooperative is Happy Green Infotainment functions as a

\textsuperscript{102} Irmela Krug, Interview with author, April 11, 2011.
\textsuperscript{103} Ibid.
\textsuperscript{104} Sangay Rinchen, Interview with author, April 11, 2011.
\textsuperscript{105} Ibid.
campaign for “green” education by promoting the products of the cooperative and values of GNH. While the other three components of the cooperative are product based, Happy Green Infotainment contains the structure for social action to achieve the goals of Happy Green Cooperative.

Happy Green Cooperative has both youth members, who are the owners and employees of the venture, and associate members, who are the farmers that collaborate with the cooperative.\textsuperscript{106} Almost half of the youth members were originally from Happy Valley Youth and there are currently 16 members who manage the four components of the cooperative. Although Happy Green has the structure of a legal cooperative including a Board of Directors, it is unique in that membership includes a full-time job, and was formed bottom-up rather than through an outside agency. Additionally, it does not fall into the Renewable Natural Resources (RNR) Cooperative category under the Department of Agriculture Marketing and Cooperatives (DAMC). Sangay Rinchen is still pressing to include non-RNR cooperatives within the legal structure for groups and cooperatives.

\textit{Organic Farm at Toktokha}

The organic farm in Toktokha is owned by Dasho Pasang Dorji and promoted by his daughter, Sherab Wangmo.\textsuperscript{107} Currently 5 acres are being farmed with organically grown vegetables that are sold to the Happy Green Cooperative Farm Store in Thimpu (RNR). Rinchen Dorji is the manager for the farm and he, as well as his two colleagues, have extensive backgrounds in agriculture and seed production.\textsuperscript{108} The farm employs 8 other field workers with

\textsuperscript{106} Ibid.
\textsuperscript{108} Rinchen Dorji, Interview with author, April 14, 2011.
basic farming knowledge. Rinchen Dorji believes that organic farming methods are easy to learn if one has a modest background of agriculture knowledge; Bhutanese could easily learn the methodology. He participated in recent trainings on organic agriculture in India sponsored by the Samdrup Jongkhar Initiative. Although he benefited from trainings in India, he feels that the promotion of organic agriculture through trainings could be more effective and economical if they were conducted domestically and for shorter periods of time. Incentives and follow-up checks with farmers after the trainings could make organic farming trainings more meaningful.

The farm is currently cultivating vegetables, yet Rinchen Dorji hopes they will move in the direction of organic seed production. Organic seeds are a product that could easily be exported for demand in India and elsewhere abroad. Dorji and his other senior colleagues have experience with seed production and he is confident that it could be profitable and meet market demand. Dasho Pasang Dorji and Sherab Wangmo are in the process of forming of a Farmer’s Group for new organic farmers in the Toktokha

[Image: CNR student Denka Dorji inspecting the farm’s cabbages for pests]

109 Ibid.
Dasho Pasang Dorji hopes this effort will help support the community and their agricultural livelihoods. There are nearly a dozen farmers interested in joining with the Farmer’s Group. Once formed, the group will most likely continue connections to the market through Happy Green Cooperative.

**Samdrup-Jongkhar Initiative**

Guided by the inspiration of Dzongsar Kyentse Rinpoche, the Samdrup Jongkhar Initiative (SJI) is a civil society project to foster GNH-based development for Samdrup-Jongkhar dzongkhag. The objectives of the initiative are to raise living standards and food security for households and villages within the dzongkhag in ways that are healthy for its environment, culture, people, and communities. Various figures have been guiding the execution of the project, however its primary leaders are Ronald Tashi Coleman (Executive Director of GPI Atlantic) and Dasho Tashi Dorji.

SJI had an inspiring launch in December 2010, where notably the Prime Minister, Jigme Y. Thinley, Kesang Tshomo from the National Organic Programme, Vandana Shiva from Navdanya, and Bunker Roy, founder of Barefoot College in India, were all in attendance. The launch had an impressive attendance of 400 farmers from the dzongkhag. Following the launch, a change of mind for these farmers was observed, however there was little follow-up for their connections with SJI. In the early part of 2011, SJI sponsored trainings to India and

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110 Ibid.
111 RGoB, Ministry of Agriculture and Forests. *Organic vegetable and dairy farming*, 13
114 Linda Pannozzo, Interview with author. April 12, 2011
115 Ibid.
reciprocally invited experts from India for trainings in the country.\textsuperscript{116} Currently, the project has a working group in Thimpu, which is finishing an investigative profile on the *dzongkhag*.\textsuperscript{117} The report outlines the state of the *dzongkhag*, with focus on agricultural issues. Integrated into profile are experiences of Indian experts and data from Samdrup Jongkhar to validate organic farming and farmers groups as tools for reaching their objectives.\textsuperscript{118} The profile suggests involving youth in farming during school vacations where farm work could count as either a paid internship or academic credit, closely reflecting the household attachment period required by the College of Natural Resources.\textsuperscript{119} This recommendation is also a solution for labor shortages, especially with conversion to organic methods.

\textit{School Agriculture Programs}

The School Agriculture Program is a collaborative effort between the Ministry of Education and the Ministry of Agriculture.\textsuperscript{120} The program goals are to encourage involvement in agricultural activities, improve nutrition in schools and foster an appreciation of agricultural work. \textit{In Bhutan National Human Development Report 2005: The Challenge of Youth Employment}, SAP is identified as a recent effort to remedy rural to urban migration.\textsuperscript{121} The Ministries plan to have a SAP in every secondary school nationwide, although currently only two thirds of schools have adopted the program.\textsuperscript{122} Funding for the first year comes from the

\begin{flushleft}
\textsuperscript{117} Linda Pannozzo, Interview with author, April 12, 2011.
\textsuperscript{118} Sandrup Jongkhar Initiative, \textit{Profile}.
\textsuperscript{119} Ibid., 225.
\textsuperscript{120} Sonam Tashi, Interview with author, April 7, 2011.
\textsuperscript{122} Sonam Gyeltshen, Interview with author, April 9, 2011.
\end{flushleft}
Ministry of Agriculture, after which the program is reliant upon school budgets. Support from the Ministry continues on a smaller scale, including a nation-wide evaluation and ranking for the best SAP, accompanied by a cash prize.\textsuperscript{123} The program is facilitated through Focal Agriculture Teachers, who assume the role in addition to regular teaching positions.\textsuperscript{124} One course for the school agriculture program has recently been added to the Royal University of Bhutan curriculum at its education colleges, Paro and Samtse. Each winter, 22-25 in-service teachers attend a 12-13 day training at the College of Natural Resources, covering basic technical skills in horticulture, livestock, and composting. A 10-12 day refresher course is offered for FAT who complete the basic training.

Bajo Secondary School in Wangdi has a SAP that operates as a voluntary club with 43 members and involves students on a school-wide level for smaller commitments.\textsuperscript{125} Dawa Tashi has guided the school’s impressive vegetable, horticulture, fishery, composting, and poultry programs as Bajo’s FAT for the last two years. Several miles upriver is Punakha Secondary School’s SAP in its fifth year, facilitated by Sonam Gyeltshen and Bal Krishna Dungyel. Punakha Secondary School has a club with a cap of 30 members who maintain vegetables, horticulture, livestock, mushrooms, medicinal plants, compost and soon ornamental plants.\textsuperscript{126} The Focal Agriculture Teachers are responsible for organizing instruction in both theory and practice. Voluntary club members receive most of the instruction and help disseminate it amongst the rest of the school. Both schools have four houses that compete to have the most successful and well-cared for gardens, with awards for the winning house.

\textsuperscript{123} Dawa Tashi, Interview with author, April 8, 2011.
\textsuperscript{124} Sonam Tashi, Interview with author, April 7, 2011.
\textsuperscript{125} Dawa Tashi, Interview with author, April 8, 2011.
\textsuperscript{126} Sonam Gyeltshen, Interview with author, April 9, 2011.
Nahi Primary School’s Agriculture Program is not faring as well as its neighbors in Bajotang and Punakha. The primary school has only 140 students and is located 14 km up a small road from the Wangdi dzong.¹²⁷ The program functioned for the two previous years, but due to a lack of funding and resources, 2011’s program is latent. The school does not have any tools to provide students for gardening and did not receive seeds as a new extension agent was transitioning into the job. Nahi’s FAT, Wangchuck, hopes that the program will continue again in the future, as he sees it as a way for students to learn organic methods that they can pass on to their parents while home during holidays.

Organic agriculture is the only method taught by SAP, giving students new skills and knowledge that they can bring back to their parents. The school mess utilizes SAP’s producing and is “good for their [students] health, they can concentrate more” says Sonam Gyeltshen.¹²⁸ Organic farming methods taught through SAP give them technical knowledge enabling them to “work as educated farmers.”¹²⁹ Sonam Gyeltshen sees SAP as a way “to mitigate rural to urban

¹²⁷ Wangchuck, Interview with author, April 18, 2011.
¹²⁸ Sonam Gyeltshen, Interview with author, April 9, 2011.
¹²⁹ Dawa Tashi, Interview with author, April 8, 2011.
migration.¹³⁰ However, even if these goals are not realized, they hope to promote values, such as “dignity of labor”, cooperation, appreciation of food and support experiential education.¹³¹ The District Agriculture Officer for Samdrup- Jongkhar sees the value of the 5 SAP in his dzongkhag (profile).¹³² Samdrup- Jongkhar students were observed practicing the organic methods they learned in SAP in the kitchen gardens in their homes. The FATs for Punakha Secondary School even conduct a Staff Development Program to orient their colleagues about their SAP and encourage multi-disciplinary collaboration.¹³³ Bal Krishna Dungyel and Sonam Gyeltshen expressed their hope that 10% of their students could seek employment in agriculture to practically use their SAP education. They are encouraged by the successes of their students.¹³⁴ One of their former students was not good in studies, but had a gift working with livestock. She did not complete her education, but is now working in agriculture with Bhutan Agro Industries Limited. Another SAP club student is finishing class 12 and will continue her education at the College of Natural Resources next year.

Youth Entrepreneurship

An effort between the Ministry of Agriculture, the Ministry of Education, and Helvetas/SDC (Swiss Agency for Development and Cooperation) is the Rural Development Training Center (RDTC) in Zhemgang.¹³⁵ RDTC combines knowledge and skills training for agricultural production, rural development and employment opportunities through a youth entrepreneurship program, farm business training for established farmers, short course trainings

¹³⁰ Sonam Gyeltshen, Interview with author, April 9, 2011.
¹³¹ Bal Krishna Dungyel, Interview with author, April 9, 2011.
¹³² Sandrup Jongkhar Initiative, Profile, 42
¹³³ Sonam Gyeltshen, Interview with author, April 9, 2011
¹³⁴ Ibid.
¹³⁵ Chhimi Dorji, E-mail message to author, May 3, 2011.
in farm skills and management, and a youth agricultural awareness program (RDTC website).\textsuperscript{136} Unfortunately, in 2010 RDTC could not implement its year-long youth entrepreneurship program because there was not enough interest from participants.\textsuperscript{137} The 3-6 week farm business trainings saw 170 participants, and 60 students were involved in the youth agricultural awareness program during their school vacations. Chhimi Dorji alluded to the positive connections between the youth agriculture awareness program participants and their return to SAP programs at their own schools. Teachers were appreciative of the additional training provided to their students. RDTC has limited instruction for farmers on organic methods, however they have integrated organic into their vegetable production modules.\textsuperscript{138}

The Ministry of Labor and Human Resources’ Department of Employment also promotes self-employment in rural areas with its Entrepreneurship Promotion Training Program, which has no specific focus on agriculture.\textsuperscript{139} This program provides a month long training and financial support for young people from rural impoverished areas, specifically Zhemgang, Samtse, and Mongar dzongkhags. Currently, the training is administered in Thimpu, however there are plans to decentralize the trainings to the rural areas of focus. In a further effort to decentralize, The Department of Employment made the employment-seeker process accessible online, whereas before job-seekers had to go to Thimpu to register documents and receive services.

\textit{Royal University of Bhutan, College of Natural Resources}

\textsuperscript{137} Chhimi Dorji, E-mail message to author, May 3, 2011. 
\textsuperscript{138} Ibid.
\textsuperscript{139} Damchu Wangdi, Interview with author. April 13, 2011.
CNR offers two-year diploma and two-year B.Sc. degree courses in Agriculture, Animal Husbandry, and Forestry. The school currently has 223 students and 28 faculty members with plans for future expansion. The majority of diploma students will enter the workforce as government employees, working as extension agents in their respective fields. CNR prepares them for this role with technical training enhanced through fieldwork in the campus garden, livestock farm, and nursery for forestry. Throughout the semester, students integrate their classroom modules with block weeks, where they travel away from CNR campus for interaction with the field. During winter vacation in their first year, students live and work with a farming family for a month long household attachment. In their second year, the students participate in a geog attachment for two months, working directly with extension agents.

Conclusion

At the end of Dzongsar Jamyang Khyentse’s popular and poetic film *Travellers and Magicians*, his characters choose tradition and sincerity over the illusions of success. Sonam, a paper maker’s daughter, selflessly disguises her academic proficiency to support her father in his
Although the tale is certainly romanticized in the film, Deki Lhamo has lived this same decision. Deki is 19 years old and recently finished class 12 at a private school in Thimpu. Her father has been the Nahi Gup for the past 12 years and her family owns the only shop in for miles around. She has a sister in class 2 and a brother who is a monk. After finishing class 12, Deki held a job for a few months in Thimpu, but decided to return to her family’s fields and store. Last year her parents were not able to cultivate their fields of rice, wheat, and mustard because they didn’t have time between the shop and the local government. This year, because Deki returned home, they have enough labor to again farm their fields.

Deki wants to be a forest ranger, but didn’t qualify to continue her education at the university level. Although her decision to stay in Nahi was half hers and half her parents, she is satisfied to be home helping them, especially after seeing many of her classmates being unproductive or failing in their urban endeavors. Deki is now able to keep organized records for the store, whereas previously her mother’s illiteracy challenged accurate bookingkeeping. Deki would like to run for the assistant gup position in the government, but must wait six years until she reaches the age requirement.

Travellers and Magicians, DVD. Directed by Khyentse Norbu. 2003; Zeitgeist Films.

Deki Lhamo, Interview with author, April 19, 2011.
Organic agriculture is a way to reengage educated youth. Just as Deki aspires to be the assistant *gup*, semi-educated youth in villages could have opportunities as record-keepers for community Farmers Groups, who are invariably challenged by low-education levels and illiteracy. If given roles where their achievements could be recognized and utilized within their villages, “push” factors for youth are reduced. This outlet is also a way for youth to become more involved in the activities of farmers groups. A common problem faced by farmers groups is age homogeneity of its members. In Tsirang *dzongkhag* however, Kesang Tshomo observes that half of farmers group members are school dropouts and many are involved in trainings facilitated through the National Organic Program.\(^{142}\)

Sangay Rinchen is making connections between youth and organic with Happy Green Cooperative. However, in his model, Thimpu dwelling youth are becoming involved as the interface between farmers, farmers groups and the market. HGC is progressing towards youth involvement at the farm level. Training in organic methods provides younger people validation as educated farmers since they not only know how to not use chemicals, but understand how to employ organic techniques for increased production and sustainably healthy farms.

Although most students aspire to take the civil service exam to secure a job as an extension agent after graduating from CNR, first year diploma students Denka Dorji and Dechen Tshomo are planning for jobs at Toktohka’s organic farm when they finish. Diploma level involvement in organic agriculture indicates that the sector is increasingly assimilating the involvement of educated and semi-educated peoples.

Rewarding markets are a vehicle to validate organic farmers and cohesive farmers groups. Most Bhutanese are very aware of which vegetables at a market are local or imported, and identify the imported products as receiving heavy sprays of chemical fertilizers and

\(^{142}\) Kesang Tshomo, Interview with author, April 11, 2011.
pesticides. The weekend market in Thimpu is organized into one space for domestically produced items and another for imported products. Kesang Tshomo recognizes that people are willing to pay a little more for local products at the market thus, organic local products should not be an exception. Bio Bhutan has found that their organic products are absorbed into the domestic market, a trend that they are promoting more intensely each year. The Dewathang Milk Marketing Group brings milk from its member farmers to Samdrup-Jongkhar each morning for sale. The group has set a limit at two liters per customer, as their product sells out immediately each morning. Buyers across the border recognize that India’s milk is traced with urea and other chemicals and seek Bhutanese milk because they know that it is safe and healthy. Similarly, organic products have the same potential for valuation of quality and safety from foreign markets.

Community groups of farmers and sustainable cultivation without chemicals has a historical and cultural presence in Bhutan. The emergence of Farmers Groups and Cooperatives and organic agriculture is a modern adaptation to traditional belief and practice. The implementation of Farmers Groups and organic agriculture embody holistic development, an approach that Bhutan is committed to through Gross National Happiness policy. Guiding agriculture with these strategies can validate can rural agrarian livelihoods and foster youth engagement in agriculture, thus mitigating rural to urban migration.

143 Ibid.
144 Irmela Krug, Interview with author, April 11, 2011
145 Sandrup Jongkhar Initiative, Profile, 104.
146 Linda Pannozzo, Interview with author, April 12, 2011.
Appendices

Methodology

My research was physically and theoretically initiated at the College of Natural Resources, where I was able to tailor resources and opportunities to meet the needs of my project. Through living in the student hostel, partaking in experiential “block week” activities, and frequently checking-in with lecturers, I was able to understand agriculture in Bhutan through the lens of the college curriculum, faculty research, and student aspirations. As a second year Environmental Studies student, I have limited knowledge and experience with the technical aspects of agriculture, which inevitably limited aspects of my project. An omnipresent language and cultural barrier influenced my personal interviews and inquiries, most notably with farmer dialogues in Nahi and Gamakha, as translators assisted our conversations.

I sought information through interviews with people involved in agriculture, employment, development work, and education to support and respond to information from government reports and studies. Interviews with farmers themselves were especially valuable to compliment the policy heavy interviews with different government agencies and organizational directors. Additionally, I spent several days helping farmers, Namgay Pem and Kezang Wangmo in their fields. This added a breath of reciprocity to my typical interviewing method.

Bhutan Map:

## Glossary of Terms and Dzongkha Spellings in the chos skad Alphabet

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>Bajotang</td>
<td>CID</td>
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<tr>
<td><em>drig lam namzha</em></td>
<td>Etiquette and code of conduct for formal settings</td>
</tr>
<tr>
<td><em>dzong</em></td>
<td>Fortress-like structure that serves as the headquarters of a district administration and the residence of the monastic body</td>
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<tr>
<td><em>dzongkhag</em></td>
<td>District</td>
</tr>
<tr>
<td>Gamakha</td>
<td>CID</td>
</tr>
<tr>
<td><em>geog</em></td>
<td>County, consisting of a block of villages</td>
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<tr>
<td><em>gup</em></td>
<td>Elected Leader of a Geog</td>
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<tr>
<td>Habesa</td>
<td>CID</td>
</tr>
<tr>
<td>Kabesa</td>
<td>CID</td>
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<tr>
<td>Lobesa</td>
<td>CID</td>
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<tr>
<td><em>mekhu</em></td>
<td>Homemade rice cracker</td>
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<tr>
<td>Nabesa</td>
<td>CID</td>
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<td>Nahi</td>
<td>CID</td>
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Wangdi, Damchu

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Suggestions for Future Research

The topic of urban to rural migration is not isolated to Bhutan, similar studies could take place in areas of Nepal or Ladakh.

Tourism policy in Bhutan contrasts greatly from that of Nepal. A study of the similar nations, yet extremely opposite tourism policies could be an interesting departure from typical tourism oriented Independent Study Projects.

During my interviews and conversations with farmers I noticed that almost all of them were women. I did not pursue an explanation for this trend, however a investigation on women in agriculture in Bhutan, Nepal or India could lead to connections between gender and migration.

The author interviewing farmers from Habesa in Nahi Geog