

Farmers in Modernity: Local Responses to Agricultural Policy in Bhutan

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Introduction

Bhutan, a small landlocked Himalayan kingdom situated between India and China, is on the precipice of immense cultural and economic change. Within the past 20 years, Bhutan has opened its doors to tourism, introduced television and the Internet, and instituted international flight service. All these forms of communication and information dispersion have caused a cultural shock, wherein people have been exposed to exponentially more information about and images of people living in other countries. This change has occurred quickly: “In a single generation, the Bhutanese conception and understanding of the world, time and space, has been utterly transformed and with it, the peoples’ interests, outlooks and lifestyles.”¹ Bhutan is not often discussed within academia, but when it is, the country is often portrayed as an idyllic Buddhist kingdom that prioritizes Gross National Happiness (GNH) over the global metric of economic success known as Gross Domestic Product (GDP). In reality, Bhutan faces significant

challenges, including an aging workforce and the tension between cultural preservation and global economic participation. As the leader of a primarily agrarian society, the Royal Government of Bhutan (RGoB) is developing policies that promote mechanized technology, prioritize organic growing methods, and encourage farmers to grow and export higher-value crops. These efforts aim to increase the value and quantity of exported crops and thus grow the economy. To do this, the RGoB must assess how farmers, who make up at least 55.78% of the population, are engaging with these policies and evaluate their effectiveness.²

To explore Bhutan’s changing agricultural landscape, my thesis will center around the following question: How are farmers responding to agricultural policy in Bhutan? In response to this question, I argue that agricultural initiatives are failing to take hold at the local level in Bhutan due to two main reasons: (1) the possibility that new methods might change their growing seasons and cause additional problems to the

¹ Karma Phuntsho, *The History of Bhutan* (Penguin Random House India Private Limited, 2018), 584.

² “Bhutan,” IFAD, accessed December 13, 2024, <https://www.ifad.org/en/web/operations/w/country/bhutan>.

harvest, and (2) a lack of effective communication by the RGoB explaining how to use new technology and seed varieties. Additionally, I explain how farmers' lack of adoption of the new agricultural policies can be considered a form of resistance to economic development and global capitalism. This conclusion is supported by ethnographic research which I conducted in a local community in Bhutan. The research centered around a questionnaire about current agricultural practices and how they have changed over time. Respondents' answers reveal that farmers have chosen not to adopt new technologies for farming or new seed varieties even though they might appear to be cheaper and more efficient on a surface level. Their answers indicate that this pushback might be for a variety of reasons, such as a lack of appropriate instructions surrounding the new technologies or a resistance to new crops because they might alter the growing season and thus change too much about the farming routines. This inertia is due to a lack of information/knowledge provided by the RGoB, not an unwillingness from the local populations.

For Bhutan to continue on its current path of economic growth as desired by the RGoB, it must continue to promote effective agricultural policy

and also ensure that it is being adopted appropriately at the local level.³ Effective "development" (defined on Bhutan's terms by modernizing and growing economically while maintaining traditional culture) needs to advocate for everyone and strive towards a prosperous future sustainably.⁴ As Bhutan faces this economic and cultural transition, it must also face the challenge of creating ethical and constructive policy for the country's population, the majority of whom engage in agriculture practices to support their livelihoods. Many Bhutanese grow crops to sell as their main income, and 70% of the rural population engage in subsistence farming.⁵ Useful agricultural goals matter because they promote the best outcome for the greatest number of people, and the RGoB has the responsibility to formulate this policy with positive impacts for farmers. Creating good policy will ensure that agricultural change does not happen too quickly such that it negatively affects farmers' livelihoods. It should preserve GNH while also achieving economic success for the country. The most effective way to do so is through the utilization of a bottom-up lens of policy formation, which entails examining peoples' needs on the ground and dedicating policy goals to address those needs. That way, the

³ Royal Government of Bhutan, "Thirteenth Five Year Plan," *Cabinet Secretariat*, 2024, <https://www.pmo.gov.bt/wp-content/uploads/2019/09/13-FYP.pdf>.

⁴ Jigmi Y. Thinley and Janette Hartz-Karp, "National Progress, Sustainability and Higher Goals: The Case of Bhutan's Gross National Happiness," *Sustainable Earth* 2,

no. 1 (December 2019): 4, <https://doi.org/10.1186/s42055-019-0022-9>.

⁵ "Food Security and Agriculture Productivity (FSAPP)," Global Agriculture and Food Security Program, accessed December 15, 2024, <https://www.gafspfund.org/projects/food-security-and-agriculture-productivity-fsapp>.

regulations, laws, and initiatives all work to serve the people's interest.

The key contribution of this paper to the body of research on Bhutan's agricultural policy is the discovery that policies on the ground are failing to take hold. Bhutan's agricultural policies lack analysis on the ground level to evaluate whether they are accomplishing their stated goals, and thus they are failing. Information about how specific machinery and crop varieties are not being adopted by farmers in local communities can help answer questions about how the government should shape policy in the future. More information is always better when crafting initiatives designed for the benefit of the farmers and their livelihoods, and a more informed government will ensure safety, security, and success for its people.

Bhutan faces many challenges in its agricultural sector. Current processes of modernization and urbanization have led to an exodus of youth leaving to find work in other countries. As of November 2024, 9% of the country's total population had migrated abroad.⁶ Younger generations are abandoning their families' ancestral land to seek jobs that are less physically demanding. The RGoB must develop agricultural policy which helps to address this problem to secure a prosperous future for Bhutan.

Beyond informing government decision-making and ensuring that the general population's needs are met, this research also contributes to the conception of the bottom-up framework as a more effective tool for policy analysis. This method of evaluation should be added to the RGoB's strategies for effective and sustainable economic development. The prioritization of the farming community's response to policies will aid the RGoB in working towards a future which meets the farmers' needs while also promoting healthy growth. This finding adds to the beginning of a growing body of research on agricultural policy in Bhutan and the larger region of South Asia.

To provide context for this research, I first explain some of Bhutan's agricultural policy and general history. I evaluate the current literature on agricultural development in Bhutan and identify the gaps within it. Then, I explain the fieldwork I conducted and how it reveals the issues that farmers are struggling with on the ground. The conclusions from this research help provide insight into policy implications, including the necessity for ground-up policy analysis and the idea of resistance to cultural change. Finally, I respond to potential critiques of the work, such as issues while conducting fieldwork and the relatively recent implementation of the policies discussed.

⁶ Lesley Stahl, Aliza Chasan, Shari Finkelstein and Collette Richards, "Bhutan, after Prioritizing Happiness, Now Faces

an Existential Crisis," *60 Minutes*, November 17, 2024, <https://www.cbsnews.com/news/bhutan-emigration-crisis-60-minutes/>.

A Brief History of Bhutanese Agriculture and Economy

Bhutan is undergoing rapid agricultural and economic development, having transitioned from the UN's Least Developed Countries category to the Medium Developed Countries category in December 2023. Regardless of definitions of development and how the UN defines these categories, this shift in classification does indicate significant change. Bhutan's dominant agricultural methods can be characterized in terms of agrarian, self-sufficient subsistence farming. Traditional grains include quinoa, barley, millet, buckwheat, amaranth, and maize. Most households grew these crops for their own consumption until around 1961, when the third king's leadership ushered in a new era of planned agriculture. The third king established the Department of Agriculture and the first Five-Year Plan, which created model farms and agricultural research stations to develop seed varieties and help farmers become more successful in growing their crops. The second Five-Year Plan began to develop high-yielding paddy varieties as well as subsidies for irrigation works, which increased rice production in the country. Over the next thirty years, different high-yielding varieties of

rice were developed for different agro-ecological zones in the country, and some varieties were borrowed from India and Japan. By 1994, Bhutan was self-sufficient in producing maize, barley, millet, and buckwheat, but not in rice or wheat. Rice imports increased at this time due to a large increase of expatriate workers into Bhutan who consumed rice as their primary grain. One of the impacts of increased official trade has been a decrease in food self-sufficiency and an over-reliance on food imports.⁷ Overall, cultivated agricultural land has decreased, 30% of arable land is left fallow, and there has been an increase in forest cover.⁸

The largest agricultural transition has been a shift from traditional grains grown for subsistence farming to cash crops grown for economic benefit. This has led to varying levels of crop diversification. Specifically, more rice is now grown since it is profitable to export to India and Bangladesh, and cash crops like apples, potatoes, and other fruits have seen an increase in growth since 2012.⁹ This reflects the shift from growing low-value crops to high-value crops. High-value crops include apples, oranges, areca nuts, hazelnuts, cardamom, ginger, chilies, red rice, and other vegetables. Traditional grains have seen a

⁷ Tashi Dorji, Asta Tamang, and Ronnie Vernoy, "The history of the introduction and adoption of important food crops in Bhutan," *National Biodiversity Centre*, 2015, <https://nbc.gov.bt/wp-content/uploads/2010/06/History-of-the-introduction-adoption.pdf>.

⁸ Ministry of Agriculture and Forests, "Food Systems For Gross National Happiness Transformative Pathways For Bhutan," *Royal Government of Bhutan*, 2021,

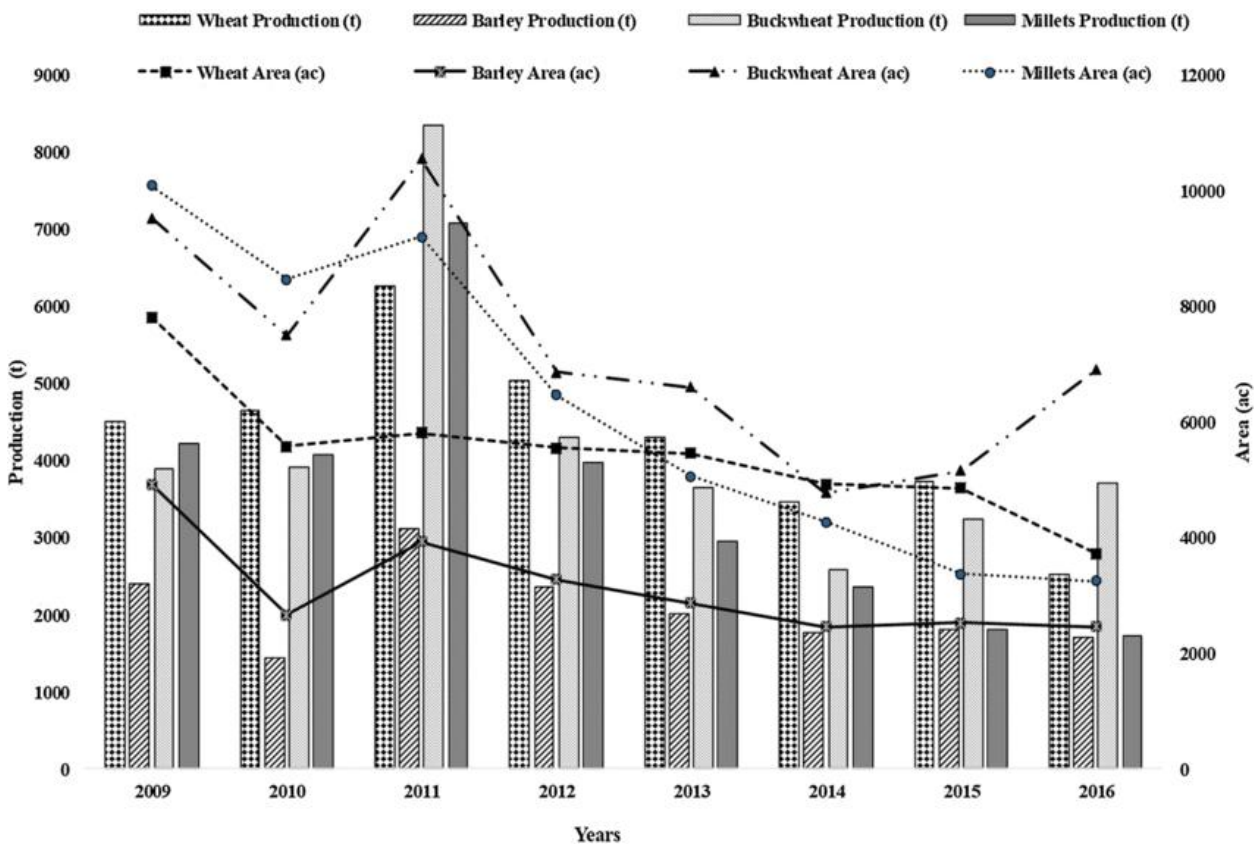
https://summitdialogues.org/wp-content/uploads/2021/09/1.-BhutanFoodSystemsPathways_UN_FoodSystemsSummit_2021.pdf

⁹ Tashi Dendup, "Agricultural Transformation in Bhutan: From Peasants to Entrepreneurial Farmers," *Asian Journal of Agricultural Extension, Economics & Sociology* 23, no. 3 (March 24, 2018): 1–8, <https://doi.org/10.9734/ajaees/2018/40289>.

decrease in growth throughout the entire country as they are eclipsed by more profitable grains (see Figure 1). Due to its quick transitions economically and culturally, Bhutan lies at a critical juncture, where modernity meets

tradition. This transitional period will have a direct impact on many farmers' day-to-day lives and thus understanding how they are responding to new agricultural policies is important going forward to ensure positive transitions.

Figure 1: Traditional Crop Cultivation in Bhutan from 2008 to 2016



Source: Chhogyel (2018)¹⁰

¹⁰ Chhogyel, Ngawang, and Lalit Kumar. "Climate Change and Potential Impacts on Agriculture in Bhutan: A

Discussion of Pertinent Issues." *Agriculture & Food Security* 7, no. 1. (2018): 9. <https://doi.org/10.1186/s40066-018-0229-6>.

Literature Review: Bhutan and its Agricultural Development as a Positive Goal

Existing research has often portrayed Bhutan in a linear and one-dimensional fashion. Scholars conducting research establish that there is an ongoing transition occurring from an agrarian to market economy and explore the most effective ways to support this shift. It is true that, for a long time, the country was agriculturally self-sufficient, and it is true that there are large transitions characterizing the country's agricultural systems and policies. Implicit in existing research, however, is the idea that a transition towards a free-market economy integrated into global trade is positive and necessary for Bhutan. This perspective is often taken as fact, limiting critical inquiry into the actual impacts of such policies.

The impact of agricultural policy on local communities and populations has been understudied. It is precisely because of the Bhutanese focus on sustainable development that it is so essential to gather accurate information about the day-to-day impact on farmers' livelihoods and practices. Policy effects cannot be understood solely through the changes in the numbers of trade imports and exports; this raw data does not adequately address the impact on local communities. It also does not provide an accurate metric of efficacy. According to the sustainable development model, a sheer increase or decrease in household income is not an effective measurement of developing sustainably

because it ignores so many other facets of day-to-day life. The geographical diversity of the country also plays a big role in how important localized field research is: the crops grown in different physical areas vary greatly, and thus policy must be tailored to each individual area to ensure success. Existing research deals mostly with the evaluation at the top level of policy, trying to assess what future policy might benefit the country the most. A bottom-up lens should be required for equitable and sustainable progress to occur, or at least to accurately gain a sense of how policy is manifesting in Bhutanese peoples lived experiences.

The existing literature on Bhutan's agricultural policy utilizes a top-down approach to policy analysis, examining the process of forming policies at the state level. Scholars such as Joshi et al. focus their research on agricultural diversification, and they explain that, broadly, South Asian countries are increasing the quantity of agricultural crops grown as a product of globalization. They argue that policy which supports agricultural diversification would benefit the countries in question. The authors explain that increased infrastructure development, urbanization, technological development, and trade relationships have all encouraged South Asian countries to grow various high value crops to increase country income. Their paper attempts to examine the nature and speed of agricultural diversification in the region, identify determinants of

diversification, and assess the implications of this process on food security, the employment sector, and the environment. Overall, their study reveals that the region is “gradually diversifying in favor of high-value commodities,” and they call for formal institutions and policies which would help smaller farmers collaborate and develop together.¹¹

Similarly, Dendup’s influential research studies the agricultural transitions happening in the country but ignores how the RGoB’s policies impact such changes. He writes that there are “five components of agriculture responsible for the transformation of Bhutanese farmers from peasants to entrepreneurial farmers: urbanization, farm mechanization, community institutions, high-value products and youth aspirations.”¹² His paper explains how agriculture in Bhutan is undergoing a significant shift from “the traditional village-centric production of the past to market-based farming that is integrated into national and global markets.”¹³ Although these shifts are pivotal to understanding the current status of agricultural policy in the country, Dendup does not fully explain whether the policy is creating these changes or simply

working alongside them. His concern is solely with the transition and how it can be achieved quicker.¹⁴

Related research conducted on agricultural policy in Bhutan tries to evaluate its success closer to the ground by examining policy effects rather than the intention behind it. In his chapter on agricultural technologies in Bhutan, Ngawang argues that Dendup’s “five components” mean that the RGoB will face a large challenge in creating and disseminating cheap and accessible technology to inspire more agribusiness.¹⁵ Ngawang uses his research to argue that “cross-border agricultural technology transfer” will be needed in Bhutan’s future.¹⁶ He cites examples of improved crop varieties shipped in and given to farmers from India, Thailand, and Japan. His research aligns with Dendup in that it advocates for future approaches which help the country transition away from subsistence farming– they prescribe a very particular way forward which aligns with the goals of global capitalism. However, while Ngawang criticizes current crop technology and names the challenges which policymakers face in conceptualizing effective

¹¹ P. K. Joshi, Ashok Gulati, Pratap S. BIRTHAL, and Laxmi Tewari, “Agriculture Diversification in South Asia: Patterns, Determinants and Policy Implications” *Economic and Political Weekly* 39, no. 24 (2004): 2457–67, <http://www.jstor.org/stable/4415148>.

¹² Tashi Dendup, “Agricultural Transformation in Bhutan: From Peasants to Entrepreneurial Farmers,” *Asian Journal of Agricultural Extension, Economics & Sociology* 23, no. 3 (March 24, 2018): 1–8, <https://doi.org/10.9734/ajaees/2018/40289>.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ngawang Ngawang, “Innovative Agricultural Technologies in Bhutan,” In *Innovative Agricultural Technologies in Bhutan*, ed. Nasreen Sultana, Fatema Nasrin, and Jahan S.M. Bokhtiar (SAARC Agriculture Centre, 2018), 52–76.

¹⁶ Ibid.

growth policies, he also does not explain whether the policies are taking hold on the ground.¹⁷

Some research exists which does acknowledge the current scarcity of bottom-up policy analysis in Bhutan. Ahmed writes about agricultural market reforms in South Asia and the importance of studying local impacts of economic reform. His research highlights the “dearth of empirical studies on the impact of market reform,” which he argues is due to the difficulty in assessing its effects on local populations.¹⁸ He also argues that successful agricultural policy reform happens when there is detailed and careful monitoring of changes and problems. Although Bhutan does not share a similar history with other countries in the region, it is facing similar challenges in its agricultural reform.¹⁹ Ghimiray et al. bring up similar issues relating to agricultural policies. Their paper deals with crop germplasm interdependence, in which they argue that agricultural policy must be tailored very specifically to farmers’ needs and involve external technologies. They also add that Bhutan’s agrobiodiversity is not prioritized in agricultural policy.²⁰ Although both argue that there is a lack of information on policy success, they do not advocate for a ground-level approach to analysis.

There is one study which does examine policy effects on the ground level. In research conducted to assess the impact of agricultural subsidies on poorer households, Wang et al. discovered that economic gains from targeted agricultural policy were typically reaped by richer households in the same area, defeating the original purpose of the subsidies. Their research, conducted with individuals who lived in “poor” and “non-poor” communities, reveals that, although over 90% of the population received some kind of subsidy, “non-poor” families received greater numbers of subsidies.²¹ Therefore, the study condemns current policy as ineffective. Wang et al.’s research is the first of its kind in Bhutan to evaluate the effect of agricultural policy at the local level. However, the lens of “poor” and “not-poor” is still prescriptive in its evaluation.²² Even though the aforementioned study does focus on ground-level analysis, the authors still assert that greater economic development is the only desirable outcome, framing the lack of policy success as a negative.²³

More research on the effects of other kinds of governmental intervention is needed to evaluate the efficacy of these policies at the local level. As stated previously, most existing research focuses

¹⁷ Ibid.

¹⁸ Ahmed, Raisuddin, “Agricultural Market Reforms in South Asia,” *American Journal of Agricultural Economics* 78, no. 3 (1996): 815–19, <https://doi.org/10.2307/1243311>.

¹⁹ Ibid.

²⁰ Mahesh Ghimiray and Ronnie Vernooy, “The Importance and Challenges of Crop Germplasm Interdependence: The Case of Bhutan,” *Food Security* 9, no. 2 (February 25,

2017): 301–10, <https://doi.org/10.1007/s12571-017-0647-5>.

²¹ Sonam Wangyel Wang et al., “Assessing Socio-Economic Impacts of Agricultural Subsidies: A Case Study from Bhutan,” *Sustainability* 11, no. 12 (June 13, 2019): 3266, <https://doi.org/10.3390/su11123266>.

²² Ibid.

²³ Ibid.

on the idea that increased economic prosperity is an objectively positive goal for the country. Economic trade with neighbors India and Bangladesh is regarded as an inevitable future which must be capitalized on. Research about the negative impacts of agricultural policy with the goal of increasing economic prosperity (rather than failure to create it) on local farmers has been understudied, possibly because the policies are still in the initial stages compared to other countries in the region. These shifts are relatively recent and without substantial investigation.

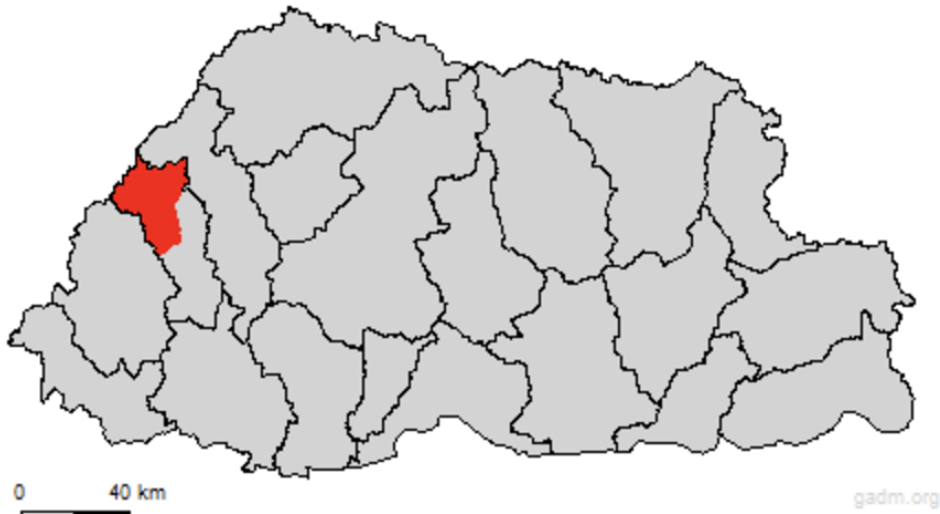
Research Design: Ethnographic Study in Paro, Bhutan

To assess statewide agricultural policy in Bhutan, I conducted research as a part of a course with four other students attending the School for Field Studies program in Paro, Bhutan. The faculty member teaching this class works on monitoring changes in agricultural and culinary practices in Paro Valley to study economic, agricultural, and culinary development in the region. The research project for the Spring 2024

program was titled Food Basket & Culinary Traditions in Paro Valley: An Exploration of the Dynamics between Food, Development, and Climate Change. I am drawing on data that I collected as a part of this field work. I can reliably use data collected from this study, as there were many questions about agricultural land and self-sufficiency in terms of crops, and respondents spoke about specific agricultural policies and their failure to take hold on their land. My study was conducted using questionnaires within the Tsento *Gewog* (group of villages) in Paro *Dzongkhag* (primary subdivisions in the country). The *Gewog* was selected through a simple random sampling (SRS) method, which allowed for an unbiased and representative sample of Paro Valley. I conducted research in the Chunju-Zamsa and Phangdo *Chiwogs* (electoral precincts). These two *chiwogs* within Tsento *Gewog* were chosen using a purposive sampling method to avoid invalid data due to household vacancy and recent emigration both out of Tsento and Bhutan (see Figure 2).

Figure 2: Tsento Gewog (in red) within the Paro Dzongkhag

Tsento is a gewog (village block) of Paro , Bhutan



Source: GADM (2018)²⁴

The research took place over nine days in April 2024. Each day, I traveled to different locations in Paro Valley to conduct interviews with local households. Within our group of five researchers, we divided ourselves into smaller groups of two to three to conduct our interviews. I opportunistically approached individuals we encountered and asked for their verbal consent to participate in our survey. If they agreed, I conducted the interviews. A translator from the Bhutan Ecological Society (a nonprofit based in Paro which focuses on building sustainable communities in the face of economic development and climate change) was part of each team.

The questions were first asked in English and then translated into Dzongkha. The questionnaire was divided into five distinct sections: Demographic Information, Development, Food Production, Climate Change, and Food Consumption. The interview was primarily composed of yes or no and multiple-choice questions, with three sections of longer, open-ended questions interspersed throughout. The open-ended sections were Cultivation, Food Consumption, and Other (Observations). Besides recording the answers in written form, I also voice recorded the interviewees speaking. At the conclusion of my interviews, I wrote down the interviewee's phone number, in case I needed to

²⁴ GADM. "Tsento." 2018. <https://gadm.org/maps/BTN/paro/tsento.html>.

contact them about the details of their responses later.

I also conducted a number of key informant interviews. The key informants located in Thimphu consisted of the Executive Director of Tarayana Foundation, the Director General of Agriculture Marketing & Cooperatives, an advisor to the Ministry of Agriculture and Livestock, the Technical Coordinator of the Hand in Hand Initiative of the Food and Agriculture Organization, and the Founder of Chuningding Foods. The key informant in Paro was the Gup of Tsento *Gewog*. These key informants were selected based on the relevance of their knowledge and professional careers to my research question, as well as their availability to meet. Prior to meeting with the key informants, I researched their roles and organizations and formulated open-ended questions to ask. I transferred the answers (which were recorded on physical sheets of paper) into two Google Forms, one for shorter answers and one for open-ended answers. The Google Form automatically entered the answers into an Excel spreadsheet. I analyzed the data by carefully reviewing each response and examining each question for major statistical differences between responses.

To extrapolate responses and answer this thesis' main question (how are farmers responding to agricultural policy?) we can look at the questions and answers about traditional crop techniques and types of crops grown. These specific questions are as follows: (1) Do you

know/use any traditional crop cultivation practices (oxen/mules, tseri, etc.)? If yes, which ones? Have you changed your farming practices from what you used to do? If yes, why? (2) Are there crops you grew 10 years ago that you do not grow today? Why did you stop growing those crops?

The answers to these questions centered around government policies, such as efforts to distribute new crop varieties or new technologies, which helps to answer how people are responding to the policies. With the knowledge from the KII that policies exist to incentivize farmers to begin growing new varieties of cash crops like cardamom and beets and adopt new crop growing technologies, responses which highlight a lack of change show that the policies have not been effective.

Empirical Analysis: Static Farming Practices Demonstrated at a Local Level

In examining responses to the questionnaire, it is evident that, as agricultural policies are impacting Bhutan's country-wide systems, individual communities and families in Paro Valley are not reporting uniform changes to their farming practices. Traditional agricultural techniques remain widely practiced in Tsento *Gewog* even as agricultural policies are implemented in Paro Valley. Although the government has attempted to introduce new technologies, such as power tillers and new seed varieties, as well as economic incentive plans to make adoption easier, local farmers have not

incorporated these new practices into their lives. The policies have not been adopted on the ground level as the government intended.

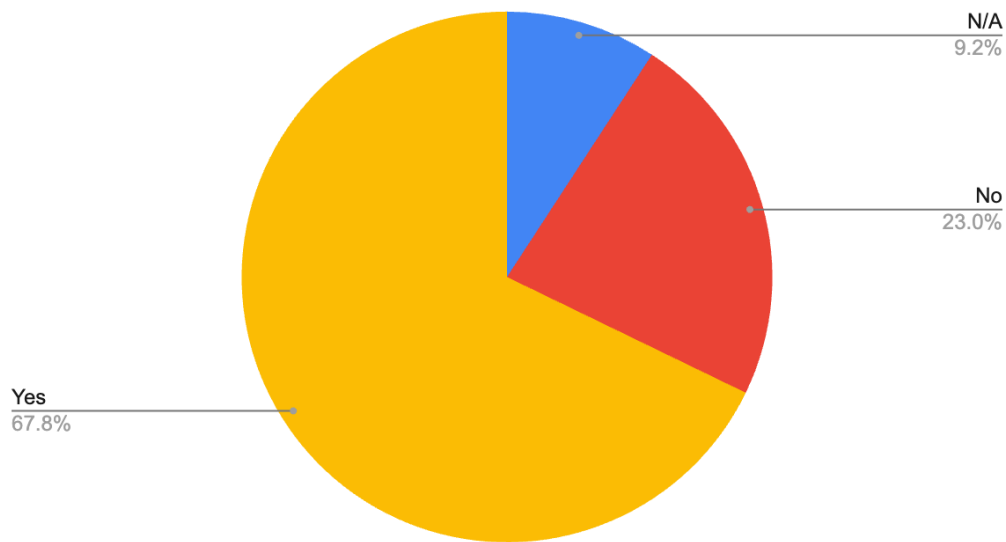
More specifically, the findings of the research reveal that, although economic changes have impacted much of Paro Valley at large, traditional agricultural practices in Tsento Gewog remain prevalent. One of the ways the locals have responded to top-down government initiatives on agriculture has been to mostly ignore new technologies and practices in favor of their own traditional methods. These traditional agricultural practices persist despite widespread economic changes. Traditional ecological knowledge (TEK) in Paro Valley forms the foundation of agricultural and food system development. I am defining “traditional practices” as a lack of mechanization, using hand tools and manual techniques, traditional seeds/crops, ancestral crops on ancestral land, and manure fertilizer. “Traditional land preparation” utilizes oxen to till the land and hand tools. Although there has been significant technological development and incentives to use new tools, the majority of farmers still utilize traditional techniques on their land.

When asked if they practice traditional crop cultivation techniques, 67.8% of farmers responded that they still do (see Figure 3). In open-ended responses, many farmers stated that

they have partially changed their practices by incorporating a power tiller or pesticides into their traditional methods. Most significantly, there has been a selective incorporation of technology into general agricultural practices, which could be for a variety of reasons. During the open-ended portion of the questionnaire, one respondent stated, “I have seeds that are inaccessible to machinery, so I use oxen to plough. I use oxen on fields which have many stones because that is not good for the machinery.” This response reveals that the technology is incompatible with the respondents’ current farming methods. Additionally, no respondents said they use mechanized technologies for transplantation, which is a particularly physically challenging agricultural practice. Even though available technology has the potential to streamline this work and make it much easier, farmers continue to manually transplant their crops. Several respondents attributed this to hesitation to change their growing season, which would be necessary to use mechanized transplantation. Changing the growing season would cause significant disruption to the rest of the crops grown, essentially forcing farmers to create a monoculture and prioritize the growth of one crop. Additionally, these technologies require significant knowledge, a lack of which can be a barrier to use.

Figure 3: Respondents’ Use of Traditional Crop Cultivation Techniques

Do you know/use any Traditional Crop Cultivation Techniques?



Source: School for Field Studies Directed Research on Development (2024)

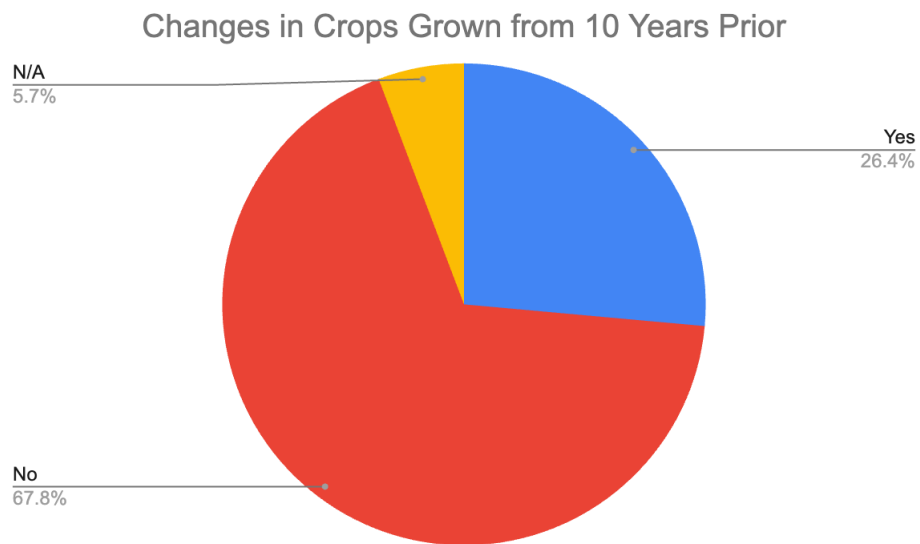
New agricultural policy has also had a relatively low impact on the evolution of the types of crops grown in Tsento Gewog, revealing that government policy has not impacted farmers at a local level. The types of crops grown have shifted slightly over the past ten years. However, 67.8% of respondents stated that they grow all the same crops that they did ten years ago (see Figure 4). During interviews with the Ministry of Agriculture, the government stated that new trade relationships with external partners have led to rice becoming more profitable to export than traditional crops. There have been new, higher-yielding paddy varieties promoted by the RGoB through seed research centers. This reflects a general trend away from the nine traditional grains (red rice, millet, sweet buckwheat, bitter buckwheat, barley, amaranth, mustard, wheat, and maize).

The RGoB's ideal outcome is to see ancestral land utilized for grain cultivation transitioned into cash crop land to increase profit. However, a significant barrier to this may be the lack of information on the new seed varieties. When asked what would improve crop yield, one respondent replied that "the government provides new seeds but no guidance on how to use them. Instructions would be appreciated." This response reveals that information from the RGoB about how to begin growing new crops is lacking. Although rice paddy is one of the dominant crops in Bhutan, only 31.8% of respondents in Tsento Gewog said they cultivate paddy. Most respondents continue to grow traditional crops along with cash crops. Additionally, some traditional crops have seen a resurgence in recent years. Aum Kinley Tshering from the Ministry of Agriculture and Livestock

mentioned that local farmers are gravitating back towards older crops due to their climate-resistant qualities. Older crops have always occupied a place in Bhutanese agricultural practices, and the data suggests that they may continue to do so,

even as technology and modernization increase in the coming years. More advanced technologies and modern crop cultivation techniques remain supplementary tools to traditional practices.

Figure 4: Change in Respondents' Crops Grown 10 Years Ago Versus Today



Source: School for Field Studies Directed Research on Development (2024)

A comprehensive analysis of the data reveals that policies and practices on the ground are interpreted and implemented differently within the government. Interviews with the agricultural sector of the RGoB reveals that its policies prioritize securing financial stability for farmers in Bhutan, while also making the occupation

attractive for the younger generation and encouraging cash crop growth for the country's economy. However, the promise to make every farm financially stable and attractive looks different on the ground. The farmers demonstrate resilience in continuing to use traditional methods for myriad reasons, potentially

including a lack of accessible information, or a preference for traditional methods. When asked why they are not choosing to adopt new seed varieties or mechanized technology, respondents explained that they do not know how to use the seeds or machinery and that adopting these new practices would cause too much disruption to their current routine. This is true even though the government provides economic incentives to purchase power tillers or other automated farming tools. As stated above, the farmers interviewed selectively incorporate mechanization into their practices. These examples suggest that, at the village level, the adoption rate of government policies is not currently high.

Implications of top-down agricultural policy in Bhutan

The main implication of the research is that, as Bhutan's economic transformation accelerates, ground-level research will become increasingly relevant and essential. The current agricultural policy is not working at a local level in Bhutan. In the future, it will become increasingly challenging for Bhutan to avoid prioritizing economic prosperity for the country, and ethical policymaking will become more critical to ensure success on each level (individual and country

wide). These plans can be seen in the 13th Five-Year Plan. Published by the RGoB in 2024, the plan states that "Bhutan's journey with GNH has seen uneven progress, with economic development lagging behind advancements in social, cultural, environmental and governance dimensions. The 13th Five-Year Plan (FYP) offers the chance to rebalance GNH by placing a renewed emphasis on economic transformation through innovative strategies and robust partnerships aimed at generating enhanced opportunities for Bhutanese."²⁵ This indicates that, in the near future, economic development will be prioritized. The plan seeks to elevate farmers' income and contribution to GDP, which will occur through the "establishment and expansion of large-scale commercial farming."²⁶

To achieve the economic development, "the production, aggregation, processing and marketing of six priority crops and three livestock products will be intensified to maximize returns and economies of scale...Complementing this initiative, assistance will continue to be provided to farmers engaging in subsistence farming. This will include targeted subsidies, technical support, access to small-scale credit and improved agricultural inputs. Investment will also be made towards improving irrigation and water supply to improve farm productivity."²⁷ The introduction

²⁵ Royal Government of Bhutan, "Thirteenth Five Year Plan," *Office of the Cabinet Affairs and Strategic Coordination*, 2024, Office of the Cabinet Affairs and

Strategic Coordination, <https://www.pmo.gov.bt/wp-content/uploads/2019/09/13-FYP.pdf>.

²⁶ Ibid.

²⁷ Ibid.

and implementation of these plans will continue to affect farmers on the ground level, and this will require monitoring of local communities to see if the policies are successful. As stated above, Bhutan will continue to face the challenges which come with economic change addressed in the paper, and research done to analyze the issues faced at a local level will only become more relevant as time goes on. Instead of policymakers determining priorities for the government, research from the ground up ensures that the needs of farmers, who make up most of the country, are the most heard. This might seem radical to a larger, more economically developed country, but Bhutan has always operated with a standard of policy created specifically for the wellbeing and explicit happiness of its people. The bottom-up framing is useful in working towards the best and most productive future for farmers in the country. This research and its surrounding ideas can also be considered one of the beginnings of bottom-up policy analysis in the region, which works to stem the rising tide of economic development as it threatens to transform the country too quickly.

Rapid transformation brings up one final implication which arises when examining policy effects on farming behavior, and that is the idea of resistance. The behavior exhibited by local

populations can be considered one of resistance to change. In this case, the change is the effort to implement policy which supports the country's transition to participate in the global economy. The initiation and cultivation of trade relationships with neighboring countries has the almost inevitable consequence of changing many facets of Bhutan's culture and economic system. More country-wide income and the incentive for local farmers to increase their income will lead to changing technologies, jobs, and lifestyles.

Much research and theorizing has been done about what constitutes "resistance," including work on "everyday resistance," a term first introduced by James C Scott in 1985.²⁸ This specific term can be defined in four ways: "(1) Everyday resistance is a practice (neither a certain consciousness, intent, recognition, nor an outcome); (2) It is historically entangled with (everyday) power (not separated, dichotomous or independent); (3) Everyday resistance needs to be understood as intersectional as the powers it engages (not engaging with one single power relation); and (4) It is heterogenic and contingent due to changing contexts and situations (not a universal strategy or unitary action form)," as Vinthagen and Johanssen argue.²⁹ Although the RGoB is not purposefully inflicting any kind of negative act upon its population, there can still be

²⁸ Anna Johansson and Stellan Vinthagen, "'Everyday Resistance:' Exploration of a Concept and Its Theories," *Resistance Studies Magazine*, no 1 (2013): 4, <https://resistance-journal.org/wp->

<content/uploads/2016/04/Vinthagen-Johansson-2013-Everyday-resistance-Concept-Theory.pdf>.

²⁹ Ibid.

“everyday resistance” by civilians against widespread cultural change. Even if it is not explicitly referred to as “resistance,” the act of not adopting certain technologies (for example, some respondents highlighted that they were reluctant to begin using some new seeds because it would disrupt the order in which they grew crops) can be considered as acting in opposition to greater economic forces which seek to create change in participants’ lives.³⁰ I am hesitant to flesh this out further because of the RGoB’s stated commitment to sustainable change; compared to other countries, the government does have the people’s interest in mind. The reality, however, is that these changes are hard to resist as Bhutan begins to interact economically with neighboring countries in the region.

This resistance is unsurprising given the widespread assumption that economic development is inherently positive and should be permitted to barrel ahead with no checkpoints. As stated in the literature review, most of the research on Bhutan has considered transitional economic development to be necessary and positive, prescribing an ideal conception of what a country should look like economically and advising strategy and policies that will get it there. This conception holds potential dangers for many countries, especially for Bhutan as it faces this point of transition. Forced change on any level must be evaluated properly to make sure it

will have a positive effect on local populations instead of no change, or negative change. The idea that economic development is positive on all levels has led to blind top-down policy decisions, which are neutral at best (such as crop-tilling tech failing to take hold) and negative at worst (such as encouraging farmers to adopt newer, more expensive seed varieties to make money through trade). To secure a positive future for its citizens, the RGoB and outside research must shift their perspective on economic development and begin to recognize its true consequences during this transitional period for the country.

Potential Critiques and Limitations

There are many limitations when trying to contribute to the body of research. It is challenging to extrapolate a study done on a small village to all of the agricultural areas of the country. It is necessary to acknowledge potential shortcomings in the research methodology. The questions formulated were compiled and tested without input from community members, and I may have missed inquiries that would have been helpful in answering the research questions. Questions were developed with the help of the Bhutan Ecological Society and School for Field Studies staff members. Additionally, questions in the survey that were answered in percentages may have been difficult to accurately respond to. For example #6, #7, and #8: “From the food that you eat: what percentage of it is self-grown,

³⁰ Ibid.

locally produced, and imported?" This question was difficult for some respondents to answer, as it is heavily dependent on the season. Many of the farmers I interviewed mentioned that they consume their own produce in the summer and purchase imported vegetables in the winter. Discrepancies like this may have affected my interpretations of the data. Because I relied on a translator to communicate with our respondents, it is possible that some of my questions were misunderstood by respondents, or alternatively, that their answers were condensed or otherwise skewed while being translated back to English. I recognize that my interpretations may not always be an accurate representation of what was communicated by my interviewees. Lastly, the data collected was solely in Tsento *Gewog*, where the agricultural practices are specific to the locality. The conclusions and analyses can thus only reflect the trends observed within Tsento and are not necessarily a reflection of the greater Paro Valley, Western Bhutan, or the whole country.

Future research would benefit from conducting surveys in more *gewogs* across Paro Valley. Different communities face different barriers to economic and agricultural success, especially in Bhutan's varied climate and agroecological zones. The point of this research and larger paper, however, is not to prescribe a specific set of instructions on policy evaluation; rather, it is to convey the utility in assessing policy from a bottom-up lens rather than a top-down

one. Ethnographic research is not perfect and will never have adequate resources behind it to fund a study which would cover the entire country. My research did its best to randomly choose a sampling area that represents the region and larger country to the best of its ability. I made sure to go over each question with the translator to ensure grammar and syntax were well understood. Any time there was any sense of confusion or misunderstanding, the interview was paused until all participants felt they were sharing common ground again. The questions were formulated with the help of my Political Ecology professor, who has research and policy experience working with the RGoB and in-country knowledge of how information is communicated in the farming community. This helped me avoid error and determine how to phrase questions based on timeframes with which respondents were familiar.

Another potential critique is the notion that economic development is inherently good, and to suggest otherwise is to deny a population of evolution and growth. The broader discourse on development in the Political Science and International Relations disciplines discusses ideas of development as potentially causing harm and having negative and destructive effects in certain applications. It is beyond the scope of this thesis to discuss agricultural development under the umbrella of broadly defined development, but it is important to mention that many scholars would argue that any kind of agricultural policy

which increases GDP and is thus “developing” the country’s economy is objectively positive. More research and scholarship is needed to examine the negative effects of broadly defined neoliberal economic development across the globe. However, this is discussed earlier in the implications section, and it is clear that economic development which prioritizes GDP over individual livelihood will create dissatisfaction and potential harm in individual communities. The RGoB knows this, which is why they measure GNH and continue on a path of sustainable development and tradeoff analysis.

Additionally, these policies are relatively new in terms of Bhutan’s government. Some might say that they deserve more time to be implemented before they are evaluated. Agricultural policy and planned agriculture have only existed for approximately fifty years, and the government is still ironing out some kinks. To judge whether the policies are successful could be considered premature. To this, I would respond that the idea of this paper is not to preemptively call out failed policies; it is to encourage active evaluation from the inception of a policy to ensure that the government is in communication with its citizens.

Conclusion

In summary, research and a gap in current literature reveal that farmers are not adopting most of RGoB’s agricultural policies despite widespread efforts for them to do so. Economic change is a powerful force shaping Bhutan’s agricultural policies, which governing bodies

hope to promote in an effort to strengthen the country’s economy and trade relations. At the local level, the government hopes to promote cash crops that raise export values, as well as more technologies which make farming easier, faster, and more efficient. This would also expand trade relationships with other countries. It has also promoted certain seed varieties to grow specialty crops that are extremely high value to redefine Bhutan as an exporter of specialty crops. In response to the question asked in this thesis (how are farmers in Bhutan responding to agricultural policy?), ethnographic research reveals that policies are not working on the ground level. This is due to a variety of factors: because the new crops and technology might change the farmers’ growing season, risking too much change to the way they grow their crops, and because the RGoB is not distributing information about how to use new technologies. Both of these reasons demonstrate a lack of on-the-ground knowledge from the RGoB about what farmers require and how they operate. A new kind of policy evaluation is needed, one which understands the needs of farmers and places the focus on them. In order to fully examine these new policies and analyze whether they are working, more research is needed from the bottom up, through the interrogation of various areas of the country to determine which government initiatives are taking hold and which need further refinement. Different strategies of policy implementation may also be worth considering. The RGoB’s emphasis

on sustainable development will prove useful for this task, as the government is acutely aware of the dangers of cultural loss when promoting economic gain. This will aid Bhutan's transition as

it continues to join international organizations and trade agreements, shaping its path toward modernity and a redefined agricultural identity.

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