HIDDEN HUNGER: A POLITICAL ECOLOGY OF FOOD AND NUTRITION IN THE KUMAON HILLS

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STATEMENT BY AUTHOR

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### Abbreviations and Acronyms

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<th>Abbreviation</th>
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<tbody>
<tr>
<td>ANM</td>
<td>Auxiliary Nurse and Midwife</td>
</tr>
<tr>
<td>ASHA</td>
<td>Accredited Social Health Activist</td>
</tr>
<tr>
<td>AWC</td>
<td>Anganwadi Center</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>FNS</td>
<td>Food and Nutrition Security</td>
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<td>GoI</td>
<td>Government of India</td>
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<tr>
<td>ICDS</td>
<td>Integrated Child Development Service</td>
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<tr>
<td>MDM</td>
<td>Mid-Day Meal</td>
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<td>NFHS</td>
<td>National Family Health Survey</td>
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<tr>
<td>NGO</td>
<td>Non-government Organization</td>
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<td>PDS</td>
<td>Public Distribution System</td>
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<tr>
<td>SHG</td>
<td>Self Help Group</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children Emergency Fund</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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Abstract

Recently, India has come under increasing scrutiny for its failure to improve food and nutrition security (FNS). Prominent governmental and nongovernmental development strategies addressing FNS include promoting horticultural crops to increase incomes, distributing food, and providing nutritional education. These programs, however, have seen mixed results. Analyzing qualitative data collected in the summer of 2013, this paper examines programs in Uttarakhand, India where hunger has been eradicated, yet malnutrition persists. I suggest that the intersection of horticultural development with existing gendered labor practices helps explain why malnutrition remains a problem despite high program functionality. Specifically, I find that inequitable gendered labor burdens are largely responsible for poor eating practices and lowered nutritional levels. I argue that interventions to improve FNS reinscribe and legitimate these burdens by promulgating a discourse situating the problem with women, whose lack of education or poor time management is seen as the source of the problem. Additionally, I find that horticultural development leads to increased reliance on market-based foods, which villagers find less nutritious. Following Mansfield (2011) I employ the concept of food as a “vector of intercorporeality” (Stassart and Whatmore 2003:449) to unpack why health perceptions are entwined in shifting landscapes of agricultural production and food consumption. I bring this conceptualization into conversation with the notion of social reproduction, investigating the human and nonhuman bodies that produce economic, ecological, and health outcomes. I argue that who, or what, these bodies are and the relations in which they are entangled matter to both material and social concerns.
Chapter 1: Introduction

1.1 Motivation

I was in the village of Kullu in the Khunti block of Jharkhand. While this area was known for recent surges in rebel group violence, I was struck by the villagers much more mundane complaints. They didn’t like the taste of the rice. In speaking with one family the two men made faces of contempt as they recalled that there was no taste (*swatist*) in the new rice, whereas the traditional varieties were sweet tasting. Moreover, they said that the new rice did not fend off hunger like the old kind did, which meant they had to come back from the fields and eat more often than they did before. The woman in the house was equally contemptuous as she said that the new rice did not keep like the traditional variety and so she had to prepare it several times per day rather than once in the morning.

Like the majority of other rural households, this family was entitled to receive 35 kilograms of rice per month from the government subsidized shops. I asked what the quality of this rice was like: “*Cubi cubi theek hai, cubi cubi carob hogya*”, (“sometime it is OK, sometimes it is very bad”). In fact, they attested that there were often times stones in the rice and it was sometimes so bad they fed it to the animals. It seemed that both the government provided rice along with the rice they were being incentivized to grow under the rubric of agricultural development was, in the words of one NGO worker: “vile”. I was caught on this. What was being done by these programs that were meant to ensure food security and more broadly, development and what work did it do?

1.2 Research Background

While the government of India (GOI) has sought to secure some type of food security for its citizens since 1937, rates of malnutrition remain “disturbingly high” (Fan et al 2012: 8, also Menon et al 2008, IIPS 2007, Hungama 2011, Saxena 2012). For example, UNICEF has
declared that one in three malnourished children can be found in India, and it is frequently noted that India has similar malnutrition rates to sub-Saharan African nations whose GDP per capita is but a fraction of that of India. (UNICEF n.d.; FAO 2013; Save the Children 2009). Increased consternation circulates around the fact that while the Indian economy has seen tremendous growth in the last decade, malnutrition indicators have not followed suit at an adequate pace (Fan et al 2012). Thus, there are lingering questions over just why India has not seen the reduction in malnutrition figures that other countries experiencing similar growth have seen.

These questions have been scrutinized by academic and political commenters alike who routinely provide different causal factors for India’s exceptionalism in this regard. Foremost, it is frequently argued that while a litany of support services are provided problems in implementation, namely, corruption, prevent them from functioning effectively (Khera 2006, 2011). Relatedly, some contend that India’s agricultural policies have been responsible through ignoring the productivity potential of smallholder, rainfed agriculture and not directing adequate resources towards them (Sharma 2011; Rosegrant et al 2003). There is also a great deal of attention directed towards the issue of gender inequality in India, with analysts arguing that increasing female economic and social status is a crucial component in addressing the roots of persistent malnutrition (Shah 2012; Meinzen-Dick et al 2012; Vollmer et al 2014; Quisumbing et al 1995). Lastly, with an increasing concern over the ramifications of micronutrient malnutrition, such as iron-deficient anemia, vitamin-a, and iodine deficiencies, the problem has increased in scope from simply being an issue of calorie or protein deficiency to one that is much more complex to track, monitor, and address (Barrett 2010; Gillesepie and Kadiyala 2012).

While these analyses have been useful in depicting the problem using broad strokes, little work has looked at the concept of food and nutrition security with the aim of
understanding how it is conceptualized and operationalized by governmental and nongovernmental organizations, or how it impacts the everyday lives and perceptions of health of the communities that engage with these organizations (Kumar 2012). In this thesis I address this lacuna through analyzing how program and policies impact food and nutrition practices and perceptions of villagers in the rural area of Kumaon in Uttarakhand, India.

1.2.1 Food Security

The concept of ‘food security’ is a slippery one and its definition has undergone numerous iterations, changing in both substance and scale since its widespread emergence in the 1970s (Carr 2006; Jarosz 2010; Maxwell 1996; Maxwell and Smith 1992). For example, throughout the 1970s influential organizations such as the Food and Agricultural Organization (FAO) and the World Bank (WB) focused on international and national food security through productivist approaches such as through the introduction of Green Revolution technologies. The focus of food security definitions shifted throughout the 1980’s to the household and then down to what came to be known as the ‘intra-household allocation’ of food (Maxwell and Smith 1992).

Similarly, while initial definitions looked at total calories consumed this shifted to acknowledging the importance of proteins and the popularization of the concept of the ‘protein-energy gap’. The theory that calorie sufficiency was adequate and focus should be placed on supplying more protein dense foods was upended in the early 1980s as it became evident that protein deficiency rarely occurred independent of overall calorie deficits. Throughout the late 1980s and cementing in the early 1990s at several high level UNICEF sponsored conferences, the nutritional focus further evolved to take into account micronutrient consumption in addition to the macronutrients of carbohydrates, proteins, and fats (Kimura 2013; Ruxin 2006).
Concomitantly, the definition has also significantly broadened to take in account social and cultural factors that influence food consumption, moving from a crude ‘calories consumed’ measuring stick to ever more nuanced checklists of criteria which qualify or disqualify individuals as food secure (Barrett 2010; Maxwell 1996; Suryanarayana 1997). The most commonly used definition today comes from the 2001 Food and Agriculture Organization (FAO) annual *State of World Food Insecurity* Report, which states that food security is achieved, “when all people at all times have physical, economic, and social access to sufficient, safe, nutritious food that meets people’s dietary needs as well as their food preferences to maintain a healthy and active life”. This admittedly vast definition is broken apart and conceptualized as resting on the three pillars of availability, access, and utilization, with the addition of a temporal factor commonly known as stability (see figure 1.1).

**Figure 1.1: The Pillars of Household Food Security**

![Figure 1.1: The Pillars of Household Food Security](image)

Availability concerns itself with the demand-side of food security and looks to factors such as agricultural productivity. Access, on the other hand, is focused on the supply-side and whether households have the economic means to grow or buy enough food for and active and healthy life. The third pillar, utilization is concerned with ‘the
way the body makes use of nutrients in food’ (FAO 2008) and accounts for both food and non-food factors such as access to sanitation facilities.

Therefore, to augment the idea of food security and further pry apart the third pillar of utilization, the concept of ‘nutrition security’ emerged from the 1992 Universal Declaration on Nutrition. While the concept and the relationship between FS and NS have been debated, it is generally conceded that food security is a necessary but insufficient condition for nutrition security (See FAO 2008, 2009 Weingärtner 2005). In addition to FS, NS is predicated upon factors such as the caring capacity of individuals, the availability of health services, and environmental conditions, specifically sanitation and hygiene (Figure 1.2). In addition all models recognize that the socio-economic environment matters as well. This thesis takes a critical look at the three factors of food security in addition to the causal factors for nutritional status, thus I refer throughout this thesis to ‘food and nutrition security’, abbreviated FNS.
1.2.2 Food and Nutrition Security in India

The manifestation of FNS policy in India has been varied and reflected changing definitional substance and scales mirroring those of international development discourse. Since 2001, FNS policy has been most influenced by the ‘rights based’ paradigm, which argues the FNS is a human right that needs to be legislatively guaranteed through a multi-sectoral approach. This approach has been spearheaded by a coalition of non-governmental organizations (NGOs) known as the Right to Food Campaign (RTFC), characterized by a litany of special interest groups from the breastfeeding promotion network, to the tribal rights network. Additionally in response to a 2001 Public Interest Litigation (PIL) the Indian Supreme Court (SC) formed a ‘Special Commissioner on the Right to Food’, largely comprised of RTFC members. In tandem these two bodies- RTFC and the Commissioner to the SC- have wielded significant policy influence in the GOI’s enforcement of their suite of FNS programs (Birchfield and Corsi 2009).

This current constellation of rights-based demands for FNS is a substantive progression from India’s initial efforts in ensuring food security, which began with wartime rations distributed in Calcutta in 1937 (Mooij 1998). These FNS policy goals broadened in 1957 as the GOI began providing food rations to ‘poor segments’ of the urban population. The grain for this project came from the United States under the now infamous Public Law 480, which allowed the U.S. to send cheap or free wheat to India in exchange for economic cooperation. As the GOI economic policy was focused on industrialization they provided the food to new laborers in the city as a social subsidy (Mooij 1998). However, gluts of cheap grain affected domestic production and after a huge domestic production shortfall in 1964, capitalist farmers lobbied to have price support guarantees and the Food Corporation of India along with the Public Distribution System (PDS) was born (Mooij 1998: 85). This program expanded geographically into rural areas throughout the 1970s and 1980s and progressively distributed higher quantities
of wheat and rice. During this period the PDS housed certain targeted schemes such as for tribal development or the food for work program, yet the PDS was essentially a universal program where any Indian citizen could elect to access grains.

While PDS is the largest program in terms of cost, coverage, and infrastructure several other programs were introduced to augment the goals of FNS. Integrated Child Development Services (ICDS) was introduced in 1975 to provide food rations and nutrition supplements to children under 5, pregnant and lactating women, and teenage girls. This program has progressively evolved to increase in scope and size as the village anganwadi centers (AWC’s) that implement the policy have greatly expanded in number and services offered. They now seek to be more of a mother and child health hub with monthly vaccination camps and daily preschool classes with hot cooked meals for children between 3 and 6. (Ghosh 2006; Gupta et al 2013) The AWC typically employs two local women as a teacher and a teacher’s assistant (known as the sahaiyka). These two women are both paid small monthly salaries.

From 1995, the GOI instituted the Mid-Day Meal Scheme (MDMS), which required that cooked mid-day meals be introduced in all schools. However, essentially only dry rations were available from the schools until a Supreme Court ordered in November 2001 that all schools provide a cooked meal of 300 calories and 8-12 grams of protein 200 days per year. After the SC order again little progress was achieved by the 2002 deadline, prompting civil society to mobilize and prompt state governments into action. Today the MDMS is not without problems, such as caste discrimination and food safety, but it nevertheless is largely functioning and universalized, and has been the subject of many laudatory studies (Afridi 2010; Dreze and Goyal 2003; Khera 2006). The MDMS functions by employing one local women to serve as the bhojan mata (food/meal mother) who cooks and serves the food, which is purchased by the elementary school teacher.
The auxiliary nurse and midwife (ANM) has been an important figure in ensuring maternal and infant health since the creation of this position by the Ministry of Health and Welfare in the 1960s. Responding to the fact that the women who take these positions are often overworked and ill-equipped to handle geographically dispersed populations the Accredited Social Health Advocate (ASHA) was introduced under the Rural Health Mission in 2005. The woman in this position serves as a quasi, more mobile assistant to the ANM and attempts to increase coverage of maternal and infant health care options, especially encouraging vaccination, iron supplementation, and delivery in hospitals as opposed to home birth. Importantly, she is not paid a monthly salary but is eligible for cash incentives when she motivates village women to undergo various procedures such as hospital delivery or sterilization.

1.2.3 Agricultural Development Programs in India

While the PDS, ICDS, and MDMS programs have been the traditional suite of services meant to address FNS, there has been a resurgence in looking at smallholder agriculture as a way to make substantial gains (Kadiyala et al 2012). This has taken several manifestations. First, to improve availability and access, programs have sought to increase household incomes through increased agricultural productivity and profitability as well as livelihood diversification schemes. An influential World Bank Development Report was released in 2007 which argued for increased investment in smallholder agriculture as a means to achieve sustainable development, prompting increased attention from not just the GoI but also influential development agencies. Second, given the majority of farmers in India are smallholder, there has been an increasing realization that there must be greater convergence between agriculture development and FNS goals (Gillespie & Kadiyala 2012). The International Food Policy Research Institute (IFPRI) an influential UN funded policy analysis
body held a conference in New Delhi in 2011 that further called attention to the potentials of this pathway (IFPRI 2011). Despite academic and development agency interest in capitalizing on the agriculture-nutrition intersection it has been noted that there is little idea of how this might operate *in practice*.

Under India’s constitution, agriculture is a state issue, thus policies and programs (though funded by the central government) are implemented by the state according to their political priorities and needs as well as the agro-ecology of the region. Government initiatives that promote smallholder agriculture include a range of farmer subsidies for various agricultural inputs including irrigation, pesticides, fertilizers, and improved seeds. These operate under the National Horticulture Mission (NHM) and Rashtriya Krishi Vikas Yojana (RKVY) launched in 2006 and 2007, respectively.

Despite the suite of services made available to Indian citizens, there is still a chorus of concern over the state of FNS in India. This has most recently and loudly manifested through the National Food Security Bill which was rolled out in September 2013, after two years of heated debates between Parliament, the Congress government, and civil society activists led by the RTFC. While many decry the bill as a political gimmick to win rural votes for the 2014 elections, it has nevertheless catapulted the many issues entwined within FNS to the forefront of national attention (Dreze 2013; Haddad 2012). As the passage of the NFSB indicates, governmental support of FNS programs is likely to expand and evolve over the coming years rather than diminish. Thus a close and textured analysis of the impact that these programs have on the everyday health and well-being of rural populations is necessary and the goal of this Master’s thesis. Specifically, this thesis examines FNS in India through investigating how food security in the rural hill villages of Kumaon, Uttarakhand is affected by governmental and non-governmental development programs.
1.3 Study Site

Figure 1. 3: Location of Nainital District, Uttarakhand in India


Kumaon, Uttarakhand is the site of this study and presents a unique location to understand intersections of labor, food consumption, and nutrition. Uttarakhand, which is made up of the two regions Garwhal and Kumaon, did not achieve statehood until 2000 when it was carved out of its much larger southern neighbor, Uttar Pradesh. This division was done after a long struggle for independence so as to recognize distinct development needs as a ‘hill state’ and their unique cultural heritage. Within Uttarakhand, Kumaon has always been a distinct cultural and linguistic region with its own sets of social practices, norms and customs different from the southern plains areas or their northern Garwhali and Nepali neighbors. My research was conducted entirely in the hills areas of Nainital District, Kumaon.

This region proved to be an excellent location in which to ask my research questions for two key reasons. First is that these hill areas remain dependent on small holder agriculture and a remittance economy due to high levels of migration of men into the plains where economic opportunities are clustered. Due to male out-migration, women and children in the hill areas are disproportionately burdened by high levels of physical labor required to secure
livelihoods (Mittal et al. 2009; Pant 2008; Sidh and Basu 2011). Additionally, because of the geographical constraints of the hill areas and increasingly variable precipitation patterns, the state’s agricultural communities are reported to typically face the coupled issues of low crop output and cyclical food insecurity (Mittal et al 2009; Rais et al 2009; WMD 2008).

Second, government and nongovernment and academic organizations are very involved in agriculture development programs, which they implement as a means to bolster livelihoods and improve food security. Uttarakhand hill areas are valuable in that they are temperate climates well-suited to horticultural and floricultural cash crop production. While this type agricultural development may increase cash incomes, how it affects food security and health is less certain, and a focus of this study.

1.4 Research Questions

The overarching concern that this thesis begins to unravel is how NGOs, the state, and the community conceptualize the problem of food and nutrition security in Kumaon, and how this conceptualizations informs their policies and practices. I take the FAO (2001) definition of food security as a rubric to guide my empirical questions. To remind the reader this definition states, “when all people at all times have physical, economic, and social access to sufficient, safe, nutritious food that meets people’s dietary needs as well as their food preferences to maintain a healthy and active life”.

Figure 1.4: Government subsidized poly-house in study site
Splitting this definition into two I interrogate it from seemingly diametric perspectives: the first looking at experiences of *material insecurity* under the clause ‘all people at all times have physical, social, economic access’; and the second looking at more nuanced questions surrounding how people experience food and nutrition *security* using the passage ‘sufficient, safe, nutritious food that meets people’s dietary needs and food preferences’.

Chapter 3 thus addresses the question **how do community members experience food and nutrition insecurity, and how do government and non-governmental programs understand and address food and nutrition insecurity?** Thinking about the phrase “physical, economic, and social access” through an analytical tool of social reproduction including a historical denaturalization of these burdens sheds light on how development programs help and hinder communities meet their food needs.

In chapter 4 I move the focus from access and availability to one of a health. In doing this I ask: **how do government and nongovernment workers along with community members understand ‘sufficient, safe, nutritious food’, and how do they perceive it impacts their health?** I specifically look at shifts in agricultural practices and food consumption patterns over the last 20 years that have been part of a larger project of capitalistic development and explore how these affect the way that people perceive their health. Here I turn to focus on processes of subject formation in an attempt to unravel the often contradictory processes of economic development using the lens of food, nutrition, and health.

**1.5 Theoretical Framework: Feminist Political Ecology of Health**

In this thesis, I develop a feminist political ecology of health that draws theoretical inspiration from ago-food studies engagement with relational ontologies as well a wide range of feminist scholarship. In pushing the emergent political ecology of health literature forward, I specifically seek to come into conversation with a more-than-human reading of social
reproduction. Social reproduction has been defined to encompass all of the practices that are necessary to reproduce a labor force, or in essence let us live our lives (Katz 2001; Mitchell et al 2003). This means that social reproductive practices include everything from those used to secure basic existence (like cooking, cleaning, and child-rearing) to a wide range of cultural and social practices including those associated with knowledge acquisition and learning, emotional labor, spirituality, and recreation, among others (Katz 2001:711). Feminist scholars have forcefully shown that despite practices of social reproduction being unwaged they are nonetheless absolutely central to capitalism’s ability to generate surplus value and thus continue to expand and evolve in novel ways (Dalla Costa and James 1972; Federici 2004; Fortunati 1996).

Building on scholars (Gururani 2002) who have demonstrated the difficult and sometimes dangerous labor that culturally index the value of being a pahari woman, I argue that discursive and material development practices serve to reinscribe these socio-spatial ascriptions of responsibility. Drawing on feminist critical development studies (Chant 2003, 2007; Klenk 2004; Dogra 2011; Doshi 2013; Casola and Doshi 2013; Nagar and Raju 2003; Young 2010) I look to how the category of woman is deployed with its attendant cultural tropes as a means to legitimize inequitable labor burdens.

While gendered bodies are stressed to capacity in fulfilling social reproductive obligations, this is exacerbated by new practices of consumption where people are now increasingly eating foods they perceive as less nutritious and oftentimes contaminated. Taking a more-than-human reading of social reproduction, I see that all manners of bodies (food bodies, insect bodies, botanical bodies, etc.) do work in their own right with implication for the reproduction of socio-ecological systems and their respective human and non-human constituents. Specifically, I highlight the liminality of food and understand it to be a “vector of intercorporeality” productively blurring the boundaries between the ecological and the social.
With this conceptualization in hand, I argue that due to state-sponsored shifts in agricultural production, the bodies of food traditionally depended upon for social reproduction are viewed with increasing suspicion and result in diminished perceptions of health and capacities to labor (Mansfield 2011:416, quoting Stassart and Whatmore 2003:449). This in turn places further stress on the systems of gendered labor that are responsible for social reproduction tasks. Analytically focusing on the bodies responsible for social reproduction and the recursive relationship they have with one another enables policy to more holistically understand the phenomenon of persistent malnutrition.

Furthermore, just as gendered labor burdens that threaten practices of SRP have developed into cultural indexes of what it means to be a *pahari* woman, new practices of consumption are laden with notions of what it means to be a modern Indian. Here we see new spaces of subject formation that have opened up around practices of consumption. I draw on theories of subject formation and argue that the stoking of new desires and knowledges both engenders and entrenches new ways of being. Yet, just as Foucault (1978) has argued that processes of subject formation are always transitory and incomplete, while diminished perceptions of health are material realities, they are also ideologically resistances to the new systems of consumption that have enfolded the hills. I argue that viewing FNS with this frame might serve as a font from which more ethical human/nonhuman relations might occur and new meanings of development are imagined.

In the conceptual framework that follows in Chapter 2 I outline the theoretical resources from which I will draw to better understand the research objects of food, organizations, and health. I seek to position this work in the emergent field of a political ecology of health geography, while drawing heavily from critical development scholars, agro-food studies, and feminist thought. I follow this with a discussion of my research methodologies as well as offering a brief history of Kumaon before developing my analysis in Chapters 3 and 4.
1.6 Main Findings

In my analysis I suggest that the intersection of horticultural development with existing gendered labor practices helps explain why malnutrition remains a problem despite high program functionality. Specifically, I find that inequitable gendered labor burdens are largely responsible for poor eating practices and lowered nutritional levels. I argue that interventions to improve FNS reinscribe and legitimize these burdens by promulgating a discourse situating the problem with women, whose lack of education or poor time management is seen as the source of the problem. Additionally, I find that horticultural development leads to increased reliance on market-based foods, which villagers find less nutritious. Thus while for most research participants their overall consumption of food has increased in both quantity and quality of calories, perceptions of health have diminished as villagers often believe food from the market to be adulterated and less pure. If chapter 3 is all about the (re)production of tired gendered bodies through stretching systems of labor to capacity, then chapter 4 argues that it is through the production of new agricultural bodies that demand increasingly high labor and financial inputs, that these already stressed systems of labor are pushed to capacity.
Chapter 2: Theory, Methodology, Study Site

2.1 A Feminist Political Ecology of Health

In this thesis I develop a conceptual framework of a feminist political ecology of health centered on the concept of social reproduction. In doing this, I draw theoretical inspiration from relational ontologies in agro-food studies and a Foucaultian understanding of power and subject formation.

At the heart of this research is a concern for the ever shifting (but often sedimented) coalescences of different bodies (botanical bodies, food bodies, human bodies, organizational bodies) and how these are central forces shaping food and nutrition security. In order to more productively understand the research objects of food, organizations, and health I draw from a diverse range of theoretical resources. Specifically, the subfields of political ecology, health geography, critical development studies, and agro-food studies have all discussed my objects of research inquiry using variegated conceptual lenses, thus casting them in uniquely productive ways. Cross-cutting these subfields has been rich insights from feminist scholars who emphasize better understanding marginality, difference, and the ways in which embodied practices of the everyday have important and far-reaching implication on larger structures of power.

Each body of literature has generated specific sets of theoretical tools that are necessary for me to analyze my research questions. Political ecology has long been used to examine human-nature interactions by looking at how power circulates through a ‘broadly defined political economy’ to different ecological ends. It provides a useful analytic framework that is actor oriented. Agro-food scholars nuance these analyses through more sophisticated theorizations of food, demonstrating how the very materiality of food can be useful as a lens with which to interrogate larger economic, cultural, and social processes, as well as an object
capable of producing effects. Critically, however, few of these literatures have focused on political ecology and food systems effects on human health, namely malnutrition. Here, I assert that health geographers’ work on the multiple definitions of health and well-being is central to better understanding food and nutrition security in rural India.

Bringing social reproduction in as a central analytical concept will tap the rich lineage of feminist scholarship that has theorized the gendered and raced aspects of capitalist systems of production. While originally discussed by Marx in Capital Volume 2, as a way to theorize how systems of capitalism reproduce themselves, Katz (2001: 711) sees it more broadly as the “fleshy, messy, and indeterminate stuff of everyday life”. She notes that it is much more than the biological and day to day reproduction of labor power, and includes “a range of cultural forms and practices including those associated with knowledge and learning, social justice, and the media.” Traditionally seen as the practices which enable the wage-earner to show up at work every day, social reproduction, broadly defined, essentially encompasses all of the practices that let us live our lives including such fundamental concerns as emotional labor, spiritual beliefs, and recreation (Mitchell et al. 2003).

While the concept has been analytically underappreciated in favor of its supposedly more significant other, production, this trend was decisively upended in the early 1970s as feminist autonomist Marxists persuasively argued that surplus value in capitalism originated from the unpaid daily and generational reproduction work that the unwaged women and minorities typically perform (Caffentzis 2002; Dalla Costa and James 1972; Fotunati 1996). Using an upended Marxist theory that focused on labor instead of capital, in addition to empirical experiences from across the world, they demonstrated that social reproduction is an absolutely central element in capitalism’s ability to produce surplus value and thereby its continued expansion and evolution.
Through bringing in social reproduction to my conceptual framework I wish to analytically highlight the fact that differentiated bodies are always laboring to produce material (economic, ecological, health) and ideological (social, political) outcomes. Who or what these bodies are and the relations in which they are entwined matter and have explicit effects not only for the mundane practices of everyday life but also for normative social justice concerns. Thus, in using social reproduction as a central analytical tool in a political ecology of health I seek to forefront the ways that differentiated laboring bodies are (un)able to provide food and nutritional security at the level of the household.

2.1.1 Organizational bodies as an object of analysis

Since its emergence as a subfield, a central concern of political ecology has been theorizing the organizational formations that shape environmental outcomes, often looking to the Global South and drawing on work done by critical development scholars. I follow the line of political ecologists who employ Foucault’s theory of governmentality, which asserts that power operates less through explicit forms of control, and more through productive rationality of rule. Taking a Foucaultian conception of power calls for a deeper analysis of how everyday practices and discourses are always productive of power and thus complicit in forging ever-shifting subjectivities.

Specifically, Foucault theorizes that from the 17th century onwards power operated through organizations in two key ways. First, is disciplinary power, which “centers on the body as a machine: it’s disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docility, its integration into systems of efficient and economic controls” (Foucault 1978: 139). This was later followed by the emergence of a bio-power, which utilized “an entire series of interventions and regulatory controls” that focused on the population as a whole and “its propagation, births and mortality, the level of health, life
expectancy and longevity, with all the conditions that can cause these to vary” (ibid: 139). Foucault’s notions of power are intimately bound up with bodily practices as well as bodily inscription, and he writes that points of power and knots or resistance are thus always “furrowing across individuals themselves, cutting them up and remolding them, marking off irreducible regions in them, in their bodies and minds” (Ibid: 96).

The centrality of human bodies, both as terrains of power relations and as abstracted discursive objects are made apparent in Gupta’s (2012) ethnographic analysis of the Integrated Child Development Services in India. Gupta looks at the regime of biopower that operates and argues that through fastidious collection and management of population statistics, a segment of the population (i.e. the rural poor) has become normalized as hungry or malnourished to which no immediate solution is deemed necessary. Importantly, the idea of a ‘conspiratorial institution’ is quickly dismissed, as scholars engage the Foucaultian notion that organizations do not have pre-given ontological status, and rather are “only a composite reality and a mythicized abstraction” (Foucault 2009:109). Thus, power is diffusely produced through the organization not as an ideologically cohesive entity, but as a multiplicity of disaggregated practices, always contingent to the specificity of place.

In India specifically, Gupta demonstrates that methods and practices used to collect such statistics are suspect, and likely render incomplete or erroneous ideas about the populace. Here, statistics on food, nutrition, and health are collected not as a form of biopower, in its traditional sense (e.g. for precise management of the population), but rather as a means of creating the illusion of a unified, singular state engaged in de facto disciplinary techniques of surveillance. (Gupta 2012: 45; also Mitchell 2006; Li 2010). While Gupta is instructive in illustrating how embodied bureaucratic practices are complicit in forging Indian subjects, other scholars have looked to the discursive power that flows through organizational forms.
In particular, feminist insights developed in critical development studies argue that discursive strategies deploying cultural tropes surrounding femininity oftentimes make important ascriptions of responsibility, culpability, and value surrounding a wide range of development concerns as well as spaces (Chant 2003, 2007; Casola & Doshi 2013; Doshi 2013; Dogra 2011; Klenk 2004; Nagar 2002; Young 2010). Aya Kimura (2013) particularly is useful in linking this line of work with nutrition interventions being implemented in Indonesia, forcefully arguing that women are unduly cast as both victim and perpetrator of poor health outcomes. Kimura (2013:59) terms this biological victimhood and says that it complicates the visibility afforded to women as the source of poor child health, and has serious political consequence. Most pressing is the notion that marking women as especially vulnerable tends to obfuscate the fact that vulnerabilities are dependent on a complex interplay of factors. This position is taken to its extreme when women are seen to be “victims of their own biology” and that their menstrual cycles and pregnancies predestine them to anemia (ibid: 59). While there is a certain biological risk for women to tend towards iron-deficient anemia, highlighting them as “abstracted members of a biological group” with inherent nutritional disadvantages at the expense of social relations effectively depoliticizes the gendered constructions of responsibility that surround womanhood. Furthermore, Kimura observes that the profound irony is that while women play such a central role in food and nutrition programs as both victim and agent of change, they are rarely meaningfully consulted on how to solve such problems.

Bringing these insights on the ways that practice and discourse are terrains of power relations within organizations intersects closely with work done by theorists of social reproduction. The idea of an ‘organizational body’ has long been of interest to theorists of social reproduction, who have conceptualized the ways that the system of capitalism continues to reproduce itself. Althusser is perhaps most prominent in this respect as he theorizes the ideological state apparatus, particularly the school, as being the site of social reproduction and
thus a central component in the perpetuation of capitalist modes of production. (Althusser 2006).

While having its moorings in structural Marxist thought, feminist theorists of social reproduction have been instructive in widening its conceptual utility through bringing it into conversation with Foucaultian notions of power and feminist epistemologies. Mitchell et al (2003: 416) point to the fact that while it is advantageous to draw from the Marxist tradition of investigating different (social, economic, political) structures and their relationships, it is imperative that scholarship move past these abstract theories and begin to look at the “embodied and topographical view” in order to more fully elucidate just how social reproduction is experienced in the everyday. They make a call for deeper investigations into how contemporary mechanisms of power operate in historically and contingent ways across disparate sites in these visceral ways. They write,

> If, as Foucault observed, modern power operates through numerous microcircuits and technologies of control and is primarily productive rather than repressive, we need to investigate the ways in which individual and societal understandings of the creation of value, from the scale of the individual body to the corporate body and beyond, are produced. We need to examine the multiple inter-linked forces within which the body of the laborer is constituted and hegemonic norms develop…What are the new technologies of power and knowledge that are being brought to bear on laboring bodies? (Mitchell et al 2003: 428).

Thus, a poststructural reading of social reproduction is especially relevant to simultaneously analyzing intersections of gendered subject formation in relation to processes of development. Critical development scholars such as Casola and Doshi (2013) and Young (2010) are instructive in this regard as they engage social reproduction and tease out its implicit if unstated centrality in much of the critical development literature. In the process they show that the spatial aspects are often paramount.

In researching microfinance institutions in South India, Young (2010) documents how development interventions are spatialized in ways that reproduce hegemonic gender ideologies
where women are encouraged to remain close to home so not as to disrupt their social reproductive responsibilities. Similarly, Jennifer Casola discusses the “double edge of women’s visibility and participation” where they are simultaneously targeted for empowerment and participation in development processes, all without any reworking of existing gendered labor roles (Casola and Doshi 2013:813). In Doshi’s (2013) analysis of slum redevelopment in Mumbai she contends that similar spatialized processes are accomplished through the invocation of tropes related to femininity and motherhood, such as the “familiar South Asian cultural narratives positing women as naturally more understanding and tolerant of difficult situations” (Doshi 2013: 856). Conversely, Young provides astute attention to the discourses undergirding notions of masculinity, mobility, and productivity that are lofted onto young South Asian men (See also Jeffrey 2010). While not reducing his analysis to an overly simplified “men-global-mobile, woman-local-immobile” dichotomy, he nonetheless persuasively demonstrates that through promoting certain socio-spatial economic and social responsibilities to different genders, real opportunities for community solidarity over broader structural issues of poverty are lost (Young 2010: 620).

While the work done is instructive in elucidating the everyday state practices that have consequence for the socio-spatiality of social reproduction, they are decisively human focused despite oftentimes dealing with ecological processes that are constituted by many more-than-human elements. Meehan and Strauss (2014) are cognizant of this oversight across the broader literature and making a novel theoretical move, they throw open the ways in which we define the laboring bodies enrolled in processes of social reproduction. They argue that social reproduction shows much potential to ‘metabolize’ other bodies of theory in which it is currently not in conversation with, namely Gibson-Graham community economies, feminist political ecology, and posthuman scholarship. In regards to the latter they astutely observe, “human bodies are not the only producers of life’s work. Indeed, the material world consists of
all types of laboring bodies and objects…the (re)arrangement of which carries significant political implications” (Meehan and Strauss 2014: 45). This move to the nonhuman in social reproduction is instructive and comes into direct alignment with much work being done in agro-food studies and political ecology, however scholars in these fields have yet to draw on the concept of social reproduction as a tool of analysis

2.1.2 Food as an object of analysis

Questions of agriculture, food, and famine have long been an empirical focus for political ecologists, which has resulted in an immense literature focused on agro-food systems centered on three main trajectories, roughly aligning with theoretical trends across the human geography discipline more broadly. First, through linking localized environmental degradation to political and economic structures, scholars argue that hunger and food security have been manufactured by a set of uneven political economic considerations, both vestiges of exploitative colonial-era policy and also due to more recent entanglements in increasingly volatile global commodity markets (Wisner et al 1982, Dreze and Sen 1995, Watts 1983, Bohle 1994, McMichael 2009). The second vein of literature also approached food security from a livelihoods perspective, and was interested in analyzing the micro-scale household practices. The focus of much of this literature was documenting the affects that political economic restructuring had on certain social groups while analyzing the mixed strategies they used to cope with the new vulnerabilities such as dependence on markets for both agricultural inputs as well as marketing produce (Carney 1998, Carr 2006). Following the turn to poststructuralism in the 1990s where knowledge was theorized as both socially constructed and inseparable from power relations, a third stream of food security literature emerged. This examined the shifting food and nutrition security discourses by global and national institutions (Carr 2006, Maxwell 1996), and how these can often work to extend reaches of forms of governance (Bonnin and
Turner 2012; Ferguson and Gupta 2002; Gupta 2012; Jarosz 2007; Warshawsky 2010). Scholars showed how the concept of food security has been reworked over time reflecting broader changes in dominant governance strategies and objectives.

Political ecologists work on agro-food systems and food security is thus instructive in showing that food security is both manufactured through unequal processes of development and also a socially constructed concept implicated in circuits of knowledge and power. Furthermore, using an actor centered livelihoods approach the field developed deeper understandings of how different groups coped with the vulnerabilities and dependencies engendered by political economic policies.

While political ecologists have focused on the material and discursive aspects of food production, agro-food scholars have provided increasingly nuanced theorizations of food as an object. Drawing upon relational ontology, scholars argued that the social and natural world were mutually constitutive of one another through their always in flux relations. Thus by Goodman’s (1999:17) formulation agro-food systems became to be seen as dynamic entities laden with both power and meaning. He writes: “…agro-food networks involve a two-step process: on the land, where agricultural nature and its harvest are co-produced and co-evolve with social labor, and at the table, where these co-productions are metabolized corporeally and symbolically as food”.

This theoretical move meant collapsing the long-upheld analytical binary between the previously disparate fields of consumption studies and producer oriented political economy (Goodman and DuPois 2002; Jackson 2002; Whatmore 2002). Within this turn it became useful to see that food is at once a life-sustaining material object deeply implicated in capitalist production systems and also a symbol of intimately corporeal cultural practice (Goodman 1999).
Across human geography more widely scholars employed relational ontological positions in order to more effectively account for the more-than-human world in their analyses. For example, within the concept of assemblage there are two distinct mechanisms that allow the nonhuman to be dynamic actors in the unfolding of FNS processes and programs. First, agency is radically reworked, being seen as having the capacity to “produce affect or to be affected”. Second is the idea of a “coming together” where multiple actors are complicit in ever unfolding processes of being (Braun 2006: 671). Undergirding this conceptualization is a firm rejection of liberal humanistic notions which put undue onus on “intention, reason, or will, and its assumption that the capacity to act was a property that belonged to the individual” (ibid.: 670). Thus, operationally a relational ontology means that human and nonhuman actors not only relationally constitute one another, but, to varying degrees they are all complicit in the social, economic, ecological and political processes of food production and consumption (Robbins and Marks 2010; Rocheleau 2008; Whatmore 2002).

With this powerful theoretical frame in hand, scholars started to forefront the materiality of food and the fact that it is imbued with the ability to create effects, namely provoking visceral, affective responses related to sensory experience and cultural memory (Bennett 2010; Hayes-Conroy 2008; Longhurst et al 2008, 2009; Probyn 2000). Thus food became theorized as a “vector of intercorporeality” linking not just economic production and identity-centered consumption but also biophysical environments to human bodies (Stassert and Whatmore 2003: 449).
Despite agro-food scholars’ conceptual rendering of food as a vector of intercorporeality, and political ecologists work on famines and livelihood strategies these scholars have been remiss to extend their work on food explicitly to human health.¹

2.1.3 Health as an object of analysis

In his 1996 intervention, medical geographer Jonathan Mayer observes this oversight of agrarian political ecologists to be “almost incomprehensible” and argues that political ecological analysis ought to extend past environmental questions to those of human health. However, Mayer is not the first to suggest the application of insights from political ecology to traditions of health geography, and he acknowledges Turshen (1977) had in fact already critiqued the disease ecology tradition for not accounting for political processes. In Mayer’s sympathetic assessment of disease ecology he notes that while politics was never explicitly excluded from such a schema, it was also never seen as a central concern and thus never actively engaged within medical geography.

If the political ecological underpinnings of health concerns had yet to be fully taken up by health geographers, there were glimmers of promise in understanding bodily disease to be implicitly always entwined in socially constructed nature. In a particularly prescient paper, Dorn and Laws (1994) argue for increased attention to the ways that social processes come to materially and symbolically inscribe themselves onto bodies. Perhaps the first articulation of

¹ Likewise, health geographers concern for food has largely been preoccupied with the spatial analytics of access, as represented in the food deserts literature (See Caspi 2012 for overview). This body of literature remains useful in its demonstration that food and health outcomes are embedded within more complex webs of social, economic, and cultural factors than the simple concepts such as access or availability typically allow for (Whelan 2002, Panelli and Tipa 2007). However, scholarship that interrogates food’s materiality and how its intimate embodiment is implicated in perceptions of food security, nutrition, and health has only sparsely been explored (see especially Panelli and Tipa 2007).
the biosociality of bodies among health geography, Dorn and Laws remained marginal to the wider conversation in health geography at the time which tended to focus more generally on a cultural geography of health and therapeutic landscapes. Nevertheless, a small but prolific group of feminist geographers (Brown 1995; Del Casino 2009; Dyck 1995; Dyck and Moss 1998; Craddock 1999, 2001, Parr and Butler 1999; Philo 1995) produced rich scholarship that sought to understand how gender and other axes of difference from sexuality to physical and mental ability complicates experiences of health and well-being as well as disease. Moreover, they were particularly instructive in their inspired deployment of feminist methodologies, making important contributions to the way that health is understood as situated and intimately experiential phenomenon. Drawing on Foucault, they elucidated how processes of diagnosis were themselves productive of subjects and often engendered different practices of self-care or caring for others.

Writing in 2002, Parr reflects on the missed opportunities in further developing Dorn and Laws early insights, while recuperating the corporeal as a focus in medical geography, calling for the resurgence of research investigating the “sociobiological…or the ways in which bodies are both socially constructed and materially experienced” (Parr 2002: 243). Her call largely remains unheeded as geographers have overall been reluctant to engage calls situating human health in a socio-ecological nexus. The proceeding years thus witnessed the emergence of only a thin body of literature across the discipline (Kalipeni and Oppong, 1998; Mayer, 2000; Oppong and Kalipeni, 2005; Richmond et al., 2005; Sultana, 2006; Cutchin, 2007; Hanchette, 2008).

However, towards the turn of the decade several scholars began to chart new territories in an attempt to galvanize the subfield. Specifically, King (2010: 46) waged a critique on Mayer’s initial intervention arguing it was a crude and unclear treatment of the analytical tools that political ecology has to offer medical and health geographies. He contends that a political
ecology of health perspective would be instrumental in three key ways: ...[i] generate new insights into the political economy of disease, (ii) interrogate health discourses produced by actors and institutions, and (iii) show how health is shaped through the relationships between social and environmental systems (King 2010:40).

Additional research from scholars coming from the nature-society tradition has further enriched the theoretical and empirical basis of this nascent subfield. They have argued that traditional political ecology has been too concerned with the ecology ‘out there’ and not enough focus has been placed on the ecology of the body (Guthman 2012; King 2010; Mansfield 2008, 2010; Hayes-Conroy 2012; Sultana 2006, 2011, 2013). As political ecologists have long operated under the pretense of nature being constituted by social processes, this work extends the social constructivist approach to the biomedical readings of health. Situating the human health experience within the nexus of nature-society relations and theorizing it as always already a “biosocial” has been, for some, “obvious” (Mansfield 2008: 1015, also Guthman 2012; King 2010; Sultana 2006).

Particularly instructive is Mansfield (2011) who picks up this ever more nuanced understanding of food to trace out a more materialist political ecology of health within her research on fisheries. Here, the materiality of fishes plays prominently not just in the political ecology of production and in cultural aspects of consumption but also have very real implications for human health. Drawing on Stassart and Whatmore’s (2003:449) notion of “food as a vector of intercorporeality” Mansfield (2011: 416) writes,

> Particular practices of production and consumption create new relationships between the food, human health and the natural environment. Food is a ‘vector of intercorporeality’, which means that food not only is both cultural and economic, but also connects people and the natural environment in very material, bodily ways (Stassart and Whatmore 2003:449). ...Dilemmas...come from the ways that we are producing multiple new natures (bodily and environmental) that also participate in producing each other.
Mansfield is significant in extending the food-human relationship to questions of health, and thus amends a major gap in much of the food studies literature, which long overlooked the health implications in favor of cultural and economic analyses (Cook 2006; Cook et al 2011; Slocum 2011). While Mansfield makes space for new theorizations in this direction, she herself is less interested in the nuanced ways that human health is experienced as a result of fish consumption, or who exactly the laboring bodies are that ‘participate in producing each other’. Instead she is largely focused on political economic concepts such as the commons, property, and negative externalities, directing her attention to larger scales of analysis.

In this respect, Farhana Sultana (2006, 2011, 2013) has charged ahead, striving to bring feminist health geographers’ insights on the differentially embodied experiences of health and well-being to bear on political ecology of health. In her studies of arsenic groundwater poisoning in Bangladesh she analyzes how processes of exposure and the resultant stigmatization are differentially experienced and forge subjectivities that are crosscut by factors such as gender and class. Despite differing in their analytical focal points, Mansfield and Sultana both ask important questions about how the environment-development contradictions investigated by political ecologists often also propel public health debates.

In this thesis I seek to situate my contribution squarely between these two scholars in understanding how shifting production and consumption practices both shape and are shaped by new subjectivities in the Kumaon hills. Like Sultana, I am interested in how gender complicates processes of health, however I look not to the gendered perception of health but rather how gender categories are enrolled in FNS programs and policies in combination with the extant gendered labor geographies. Further, as Foucault argues that power relations are transitory and always incomplete I look to the fractured processes of subject formation as instantiations of the complex project of forging productive and consumptive Indian subjects. In understanding these processes of subject formation I engage recent arguments put forth by

At the heart of Ramamurthy’s argument is the notion that capitalism as a mode of production is capable of producing a “‘structure of feeling’ marked by perplexity” (Ramamurthy 2011:1036, quoting Williams 1977: 132). She theorizes perplexity as a useful conceptual tool to explore the way that development acts as “series of processes that often overwhelm subjects [provoking] feelings of confusion, of loss, and of desire [that] are not separate from processes of capital accumulation” (Ramamurthy 2003: 525). While this theorization is not dissimilar from other work by anthropologists who have sought to understand contradictions of development as “defective modernization” (Simonelli 1987, Nichter 2002), perplexity is useful in that Ramamurthy forges it through a crucible of feminist epistemology as a way to better theorize subject formation through processes of consumption. She argues that at the site of consumption, subject formation becomes contradictory and conflicting ideologies abut one another, revealing “the excess of subjects—how they are more than just their bodies, how they are not simply resistant subjects nor sources of "alternative"…knowledges and practices”(Ramamurthy 2003: 543). This concept has deep resonance with my field site, which is a mix of subsistence and capitalistic agriculture practices where subjectivities are captivated by new desires and idea are forged through various socio-spatial practices—producing feelings of perplexity. I find the progressive politics that might emerge from such theorizations of the excess of subjects through processes of consumption to be a productive path ahead for future research.

Hemming between what Mansfield and Sultana have accomplished and bringing in the theoretical tools outlined above, in this thesis I develop a theoretical framework that allows for an investigation of the everyday geographies of FNS and their intersections with gendered
labor, food consumption practices, and perceptions of health. This type of investigation is essential in order to shed light on my overarching research question

2.2 Research Questions

With this conceptual frame in hand my overarching concern that this thesis addresses is: how NGOs, the state, and the community conceptualize the problem of food and nutrition security in Kumaon, and how this conceptualizations informs policies and practices. Within this larger question I ask two more specific empirical questions.

The first, which is taken up in Chapter 3, addresses the question: how do community members experience food and nutrition insecurity, and how do governmental and nongovernmental programs understand and address food and nutrition insecurity? Thinking about the phrase “physical, economic, and social access” through an analytical tool of social reproduction and gendered labor time sheds light on how development programs help and hinder communities meeting their food needs. Since the disciplining of bodies through discourse and mechanisms of power are productive of the ever-evolving facets and folds of social reproduction, a central methodological task is historically denaturalizing the gendered labor roles that created what Federici (2004) terms ‘the patriarchy of the wage’. Both Federici and Foucault (1978) demonstrate the analytical incisiveness in understanding certain policies, practices, and discourses that forged modern day understandings of ‘truth’ or common sense. Following this, I will look to provide historical analysis of the changes in policy and practices that took place in Kumaon over the course of the 19th and 20th centuries as they were ruled by the Nepalese Gurkha dynasty, followed immediately by British colonial administrators, highlighting shifts in the material and discursive ways that gendered labor roles were constituted. However, what is lacking in these accounts is an attention to the forces that the
non-human play in assisting and hindering in social reproduction, a critical aspect in the subsistence sub-Himalayan communities of Kumaon.

The second empirical question, which is the focus of Chapter 4, shifts the focus from access and availability to one of physical health. In doing this I ask: how do government and nongovernment workers along with community members understand “sufficient, safe, nutritious food”, and how do they see various programs contributing to its improved availability and accessibility? I specifically look at shifts in agricultural practices and food consumption patterns over the last 20 years that have been part of a larger project of capitalistic development and explore how these affect the way that people perceive their health. Here I turn to work that has been done in political ecology of health that has been informed by larger debates stemming from agro-food studies and feminist health geographers to understand the multifaceted roles that agriculture and food have in being drivers of human health experiences.

Methodologically these questions can only be answered through the robust set of qualitative methods that I employed. While the bulk of my data comes from open-ended, semi-structured interviews, participant observation and informal conversations with key informants provided crucial contextualization. In the next section I detail my methods and discuss the advantages and limitations that I faced in employing them.

2.3 Methods

2.3.1 Semi-structured and informal interviews in Delhi

My thesis research began in Delhi, India where with the assistance of the Indian NGO Green People (GP) I was introduced to various employees of larger international agencies and funding organizations such as Oxfam, Save the Children, and UN-run organizations. During this time I also conducted 3 interviews with top and mid-level actors in the Commissioner to
the Supreme Courts on the Right to Food. Lastly, while in Delhi I had countless informal interactions with former friends and acquaintances involved in both the implementation side of FNS policy and programs and those more well-versed in the political debates surrounding these policies. This insider perspective proved to be remarkably instructive in helping me to develop a deeper understanding of the nuances within current debates on FNS, and also in formulating questions for my forthcoming interviews in Uttarakhand.

2.3.2 Informal interviews and participant observation in Uttarakhand

I then traveled to Uttarakhand where I headquartered myself within the regional office of the GP in a small village Orakharp. The regional office mainly implemented one program that taught farmers sustainable farming practices to cope with climate change. There were approximately 11 employees (4 women and 7 men) the majority of whom were between the ages of 18 and 28. I developed relationships and had many informal interactions with many of these employees, especially the women. These conversations along with simple observation of work practices also deeply influenced my understanding of issues surrounding FNS, gendered labor, and the role of NGOs. In the latter part of my research I frequently discussed interview findings with these employees to verify the credibility of the information but more so to understand the larger implications of simple declarations and desires expressed in interviews.

One of the men, Deepak, was instructed to serve as my interpreter by the main office in Delhi. As I will discuss later, this arrangement provided a unique ethical terrain that I spent a considerable amount of energy navigating. Nevertheless, the relationship I formed with Deepak and the considerable amount of informal interactions were instructive in understanding the cultural and social norms that are specific to the Orakharp region. As Deepak himself is one of the more entrepreneurial farmers in the area it also provided a window into understanding the changing agricultural practices and the ethos that accompanies this.
In Orakhap, approximately 500 meters from the GP office is the office of another regional NGO named Iccha, which is much larger than GP and runs numerous programs to promote integrative development in Nainital, Almora, and Bageshwar districts. Iccha has been doing work in the area since 1987 and maintains a very good reputation throughout the region. It is also the only NGO doing longstanding development work in the area and for many villagers the term NGO and Iccha are almost used interchangeably. The programs run by Iccha in Kumaon are the ones that interviewees most often engaged with and I refer to them frequently in the thesis. Iccha was a large employer in the region and Deepak himself (along with several other GP employees) were previously employed by Iccha as fieldworkers. This too allowed for an insider perspective on gender, labor, and the roles of NGOs in FNS.

I had been in intermittent email communication with two executive level employees of Iccha prior to my arrival and quickly introduced myself after arriving in Orakharp. I explained my research and they were happy to participate in future interviews. I was interested in interviewing executive and managerial employees along with local fieldworkers, to which they readily agreed. Iccha has a thriving internship program where international and Indian students travel to Orakharp and pay to stay in Iccha’s dorm facilities. They identify a need within Iccha’s
programmatic focus areas and conduct research, which they then present to Iccha at the end of the internship period. I had many informal conversations with these interns, especially those doing research on Iccha’s organic agriculture and health service focus areas to understand their findings on Iccha interventions in the area. Iccha also helped the staff at GP to arrange me a homestay for my first few days in Orakarp.

When I arrived in Orakharp a homestay accommodation was arranged for me near to the office and I stayed with a man Ranjanda and his family including his mother, wife, younger unmarried sister, 2 daughters, one niece, and one nephew. This placement along with my other homestay experiences—particularly with Kamladi’s family and Raj Singh’s household allowed me valuable time for participant observation and informal discussions, which I draw on in this analysis.

2.3.3 Semi-structured interviews in Uttarakhand

Despite engaging in participant observation for the duration of my research, the main method I used to collect data was semi-structured interviews, which I conducted with the assistance of an interpreter. I conducted 30 household interviews with Deepak, 16 interviews with household women using my interpreter Sanvi, and 31 interviews with government and NGO employees (18 with Deepak and 13 with Sanvi; See table 1). In addition I conducted four interviews with higher level Iccha employees at their headquarters in Orakarp.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Title</th>
<th>Deepak</th>
<th>Sanvi</th>
<th>English</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Employees</td>
<td>Anganwadi center employees</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Accredited Social Health Activist (ASHA)</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Bhojan mata</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2.2: Interviews Conducted in Uttarakhand (n=78)
Deepak had pre-selected a village based on advice from the leader of GP to find a geographically remote village that has little or no government and NGO programs operating. Thus my first 13 interviews in this locale presented an initial challenge given that my research questions were more aimed at how people engaged with organizations. Initially, viewing this in a negative light it came to be an asset as it served as a valuable ‘baseline’ as I moved on to areas that had heavier NGO and government involvement. Nevertheless, the fact that Deepak preselected both villages and households does introduce potential bias to this study, especially given his affiliation with the NGO GP.

Participants for research were identified by my interpreters who lived either in or nearby to all of the villages in which research was conducted. I reviewed the scope and type of questions I was interested in asking with my interpreters in advance, and they were both able to make many valuable suggestions on how to better ask the questions so they might more fully resonate with villagers. I have attached a copy of the interview guide that was initially used as Appendix A.

The general format that we began with was to discuss agricultural practices (crops grown, inputs used, irrigation facilities, whether they were sent to market or consumed) which usually lasted 10-15 minutes depending on the extent of agricultural production and the level
of involvement by the participant. We then transitioned to food consumption by asking what the person had to eat in the last 24 hours. I had asked this question in a previous research project and the standard 24 hour recall survey is a standard tool in dietary assessments for governmental and NGO workers seeking to identify malnutrition, particularly micronutrient malnutrition. In my previous experience I had been working in an area (Jharkhand) notorious for hunger and poor food insecurity and people were nonchalant about answering such a question. I experienced a much different response among the more food secure Kumaonis who were often shyly laughed when this question was posed. I asked both Deepak and Sanvi whether they felt this question was unnecessarily intrusive to which they were both adamant that it was not and that this reaction was likely due to the fact nobody had ever asked them this question before and they simply thought it strange. It did provide a useful starting point to begin to explore what people conceptions of ‘good’ and ‘bad’ days of food were. In the interviews conducted with Deepak there was also a good deal of time spent on understanding what people thought were appropriate foods to feed to pregnant and breastfeeding women, infants, small children, and people doing heavy labor. While these elicited some insightful points it quickly became redundant as these are still very traditional beliefs surrounding these practices that were consistent across households. Thus when I began interviews with Sanvi we would either skip these questions or ask them but not go into detail with follow-up questions.

As the interviews progressed I began to spend more time on understanding how people understood the idea of health, and how this conception was linked to consumption practices. A central question within this these was what people understood the word kamjor to mean. Kamjor can be roughly translated to mean weak and is frequently used to describe a malnourished person. At the same time, some people associated the term with skinniness and did not associate it with any physical or cognitive symptoms. People had many different and complex conceptions of what made a person kamjor and whether this was a chronic or an acute
condition. It served as a useful starting point for delving into people’s perceptions of health and how this was related to a range of factors. The general order of the interviews was agriculture questions, consumption questions, and then queries about health. While villagers seemed well-prepared to answer questions related to production, they often struggled to understand and answer the questions about everyday food practices and their understandings of health. The everyday, mundane quality of these activities made them seem, to many, quite unremarkable. It was here that informal conversations and participant observation proved indispensable in understanding the significance of the everyday to the ways in which food and nutrition practices are viewed.

2.3.4 Switching Interpreters

After conducting roughly 12 interviews with Deepak, I began to notice that there was considerable tension surrounding the labor divisions between men and women, and that this often times had an impact on people’s ‘good’ and ‘bad’ days of food. I also found it very difficult to engage in frank conversations with women while using a male interpreter for two key reasons. First was a question of access and second was a question of discussing sensitive gender dynamics.

The foremost problem was that it was difficult to interview women at all with Deepak. If there was only a women available then the interviews generally proceeded somewhat smoothly, however, if a male was present it was extremely difficult to request an interview specifically with the woman. Deepak explained it was not culturally appropriate for him to speak with the women if the man was also present given the fact that he was a man. Even when I asserted it was my choice to interview the woman rather than the man, the man was still uncomfortable with this and would linger and inevitably come to dominate the conversation. Thus even though Deepak asked questions to women in a sensitive manner and we conducted
several important interviews with women, the question of access posed a major problem in the research.

Second, I noticed that as we skirted around topics such as workloads, divisions of labor, and difference in eating practices in the household the women would grow uncomfortable and there was a considerable amount of covert glancing in my direction as they answered these questions in polite, perfunctory ways. Sensing there was rich information lurking underneath these cursory responses I sought out a female interpreter using my contacts at Iccha. I was introduced to Sanvi, a 21 year old girl who coincidentally was a much more skilled interpreter than Deepak, as she had done this work several times in the past.

Sanvi and I conducted 23 interviews in total. Given the fact she was more comfortable as an interpreter than Deepak we generally took a more informal and open ended tact in our interviews. Interviews with Deepak proceeded in a very business-like manner and there was sometimes the feeling that information was being extracted from the participants with little personal interaction. With Sanvi, we swung to the opposite side of this spectrum and I frequently had to gently guide her back onto topic as she would tangentially begin chatting about some local gossip or happening.

This proved to be a much more productive (and enjoyable) research encounter as everyone was at ease and there was a sense of camaraderie. I believe that this can be primarily attributed to the fact that it was just the ‘ladies chatting’ in the latter case, with Deepak there was always sensitive gender dynamics inherent to every interview. However, the fact that Deepak was an inexperienced interpreter and had considerably larger sense of stress in ‘doing a good job’ also led to the business-like interaction. Finally, the fact that I was the direct employer of Sanvi, whereas Deepak was doing this as part of his job for GP (i.e. he was not responsible to me, per se, but rather to the head of GP who was in Delhi) led to differences in the research encounter.
2.3.5 Limitations

While all efforts were made to minimize bias, there were several inherent limitations that I grappled with throughout the scope of my study that were related to my postionality. I have identified three which I feel are particularly influential as (i) the language barrier and use of interpreter, (ii) being an ‘outsider’ in both India and Kumaon, and (iii) having implicit affiliation with the NGO GP for the portion of research conducted with Deepak.

Foremost was the fact that I am at a beginner/intermediate level in Hindi language, and have no knowledge of Kuamoni, thus I placed considerable trust in my two interpreters to provide accurate translations of responses. I spent considerable amounts of time talking about the purpose and logic of certain questions so as both Deepak and Sanvi were comfortable and conversational in their approach. As I stated above, each had their limitations as interpreters and I tried to be sensitive of these assets and liabilities so as to ask for clarification on data that I was unsure about. I audio recorded 75% of all interviews on a digital recorder and listened to them nightly, making detailed transcriptions of the Hindi I understood along with the translation. If I had questions or concerns I was able to have them addressed the next morning when we both listened to the segment in question. For the 25% of interviews that were not recorded (nearly all early interviews with Deepak) I took detailed notes during the interview and spent 15 minutes reviewing any questions or clarifications I needed with Deepak immediately after we left the interviewee’s home. Despite these attempts to ensure accuracy of data, it is inevitable that some nuance of the local language and Hindi is lost through the quite subjective processes of interpretation (Temple and Young 2004). Further, as much of the research hinged on subtle nuances in the way people used words and phrases, it is true that a major limitation of the research is the fact that I relied on an interpreter. As data was filtered through these two people almost certainly their own interpretation and biases were transmitted with their translation (Bujra 2006; Crang and Cook 2007). Furthermore, as both Deepak and
Sanvi and I came to be good friends and had many in depth discussions surrounding the research subject, my own questions came to be informed by these two people implicit biases. This was particularly true regarding agricultural production with Deepak and the position of women in Kumaon with Sanvi. While these were areas of expertise for them, we talked about a range of topics—some quite personal and our changing relationship most certainly impacted the ways in which interviews were conducted and translations rendered.

Despite having local interpreters/field assistants I had to navigate my postionality in the field as being an outsider and a foreign female throughout the research process. This served me as both an asset and as a liability as much of the rich literature on the subject has discussed (Crang 2003; Crang and Cook 2007; Nagar & Ali 2003; Nagar and Geiger 2007). I was able to gain access to people who wanted to speak with ‘a foreign researcher’ while at the same time I was careful to not elicit exaggerated or outright false information, as can sometimes happen when a total outsider conducts research. I felt confident that I minimized this risk as I was almost always with a local interpreter who would raise an eyebrow when suspect responses were proffered (these typically were about quantity of agricultural production). I felt that more often than not respondents tended to err towards the side of the discreet and would be diplomatic and sensitive when sharing information, as I had not gone through an extensive rapport building period with the communities due to the brief time of my fieldwork. Frequently I felt that Deepak’s presence and his identification as an employee of GP and previous employee of Iccha contributed to information being both downplayed and exaggerated. Within the first villages we worked the households had a desire to see NGO services come help and sometimes elaborated extensively on their trials and tribulations. In the 23 interviews I conducted with Sanvi this only happened in one instance, suggesting that the presence of an NGO employee contributes to such practices.
However as a foreign female that comes from a wealthy country there was a certain power dynamic in the research encounters that was inescapable. Various aspects of my appearance and demeanor were powerful signifiers that made these distinctions clear. Frequently people would try to give me extra food or treat me in a gentle manner, such as making concerned comments about me walking up and down the hills every day for interviews. Another example is that people often admiringly commented on the fillings in my teeth, which inadvertently served as a powerful symbol of class differentiation. While my class certainly created unique power relations, my gender and age also had noticeable effects on the research encounters and the power dynamics were complex and always changing.

When I first arrived in Kumaon at Kamladi’s home I went upstairs to take rest. When I awoke from my nap my brain was still defogging when three old “aunties” came to the home to see who the foreigner was in their village. The three excitedly spoke to me crowding in close to my face and gesturing dramatically while peppering me in questions. Tongue-tied and only partially understanding these women’s rapid Hindi-Kuamoni lingual mixture, I became overwhelmed and tears welled in my eyes. While these women were too excited to notice, Kamladi’s perceptive 9 year old daughter Deepa noticed and quickly grabbed my hand to whisk me away. After we were safely tucked away in the family bedroom she snuck to the kitchen and told Kamladi what had happened. Kamladi (with the three auntie’s in toe) quickly emerged in the bedroom and crowded around me to inquire if I was ok. I had regained my composure but was mortified at my unexpected display of vulnerability. We sat in the bed and looked at photos of my family and we proceeded to compare life in the US with Kumaon, and what began as a moment of weakness was transformed into an intimate bonding experience. However, this was far from the end of my “crying incident” as word travels quickly in the hills and the story of the foreign girl crying preceded my physical contact with nearly every one of my interviewees. This story generated what I perceived as feelings of empathy or sympathy...
towards me, and seemed to affect the types of information that was divulged, particularly among women. While the power relations of research are inescapable I did my best to maintain awareness and reflexivity of the terrain of ethics with which I grappled on a daily basis.

2.3.6 Analysis and Results

To analyze my data I read through the detailed interview notes (taken from the audio, including portions of direct transcription) along with participant observation field notes and noted themes that consistently emerged. I then reread the data line-by-line coding segments of text based on the themes most prominent. Since my interview data was essentially centered on the three disparate but interrelated areas of agricultural production, food consumption, and health perceptions I highlighted themes within each realm, paying special attention to the their intersections.

Throughout the period of fieldwork and early stages of analysis I engaged historical accounts and secondary analyses of the history of Kumaon and the western Himalayas more broadly. Understanding the shifts in agriculture, family structure, and land ownership from pre-colonial to colonial to post-independence was extremely instructive in allowing me to contextualize the findings. However, more importantly much of the historical accounts of changes allowed me to see how changes in agrarian political ecology along with the family structure and role of women has come to be seen as a natural manifestation of Kumaoni culture and not a product of political and legal practices and policies.

The history of North-India and the Himalayan region in particular has been widely researched and the literature on the topic is both broad and deep. I thus limited my engagement to key historical turns that proved instrumental within the scope of my research. In the following section I provide this rudimentary history in order to further contextualize the findings presented in Chapters 3 and 4.
2.4 Locating Kumaon: A Brief History

Figure 2.1: Map of Nainital District

![Map of Nainital District](http://www.euttaranchal.com/maps/nainital_map.php)

Uttarakhand, which is made up of the two regions Garwhal and Kumaon, did not achieve statehood until 2000 when it was carved out of its much larger southern neighbor, Uttar Pradesh. This was done after a long struggle for independence so as to recognize distinct development needs as a ‘hill state’ and their unique cultural heritage. Within Uttarakhand, Kumaon has always been a distinct cultural and linguistic region with its own sets of social practices, norms and customs different from the southern plains areas or their northern Garwhali and Nepali neighbors.

As Garwhal Uttarakhand and Chamoli district in Kumaon were the sites of the now infamous Chipko movement—often cited as the first stage of grassroots environmental activism—the region of Uttarakhand has been much studied by those interested in colonial forestry regimes, ecofeminism (Shiva 1989), and social movements (Agarwal 2006). Following the publication of Shiva’s divisive book there has been a slew of feminist analysis and critique of the ways in which ecological change and development processes have affected women in the region, with a heavy emphasis on the role of changes in forestry governance (Agarwal 2006; Gururani 2002; Mehta 1996). While the forests and their products are central
players in the integrated agricultural system of the region, they are not the focus of this thesis. I am more interested in the socio-spatial practices within the village domain, including the agricultural fields, or *khet* in Hindi.

With this in mind I offer a rudimentary sketch of historical practices in the region that have been influential in shaping the agro-ecological profile of contemporary Kumaon, as well as the attendant labor systems that are responsible for (re)producing different aspects of this landscape. The most important facet of Kumaoni history is the fact that a year round settlement is only a relatively recent product of colonial policy. This along with the imposition of the nuclear family through the undermining of regimes of land tenure and the simultaneous cultural assault on women’s social status in traditional Kumaoni culture were key factors that undergird the current structural poverty that enfolds the region.

2.4.1 An economic development strategy for the hills

Despite the fact that villagers reported that horticultural development began 15 or 20 years ago with the introduction of fruit trees and higher value vegetable crops, this was in fact only the most recent iteration of such development. Indeed in 1904 the Nainital Gazetteer produced by British colonial administrator H.R. Nevill notes that,

> Almost all the products of English vegetable gardens grow readily in the hills. Their cultivation has been largely taken up by the hill people, especially in the vicinity of Nainital, where market gardening is a business that yearly increases in importance. The vegetables are not merely sold in the hill stations, but large quantities are exported by rail to the plains during the hot weather. (Nevill: 65)

And even more telling:

> Under the first head the most important and by far the most widely cultivated is the potato. This is confined to the hill pattis where it occupies the foremost place among the agricultural products.....The development of potato cultivation is one of the most important features in the recent economic history of the district and has had a marked effect on the prosperity of the tract. (ibid: 63-64)
As these passages indicate, massive agro-ecological change happened across the course of the 19th and 20th centuries at the hands of colonial authorities. Of particular importance to the British legacy on the region’s agriculture is the longstanding reign of the potato, a crop of promise and peril in today’s times.

Despite their ultimate success in shifting agro-ecological practices it was certainly no easy task for the colonial authorities to regiment the Kumaon hills in a way conducive to their administrative structure, and imperialist drive to govern profitably. The 1904 Gazetteer painstakingly charts out the administrative history of the hill district, noting that at first no settlements for longer than a couple years were implemented as the hill populations were historically transient with “whole families” migrating to cultivate tracts of the lowlands during the winter months (Nevill 1904: 97-98). Indeed, seasonal migration was a way of life for most who lived in the hills prior to the arrival of the British. Pande finds that at its peak nearly 30,000 peasants participated in yearly migration. They would come with their cattle and graze them as well as grow crops until the spring months came when they returned to the hills (Pande 1999: 78).

However, throughout the 1900s British administrators maintained persistent determination to settle these circulatory populations. For one, the agricultural importance of the plains areas meant that the British were interested to develop stability and avoid the seasonal problem with law and order that often accompanied mass migration. At the same time there was a drive to make the hill region a profitable enterprise. The ultimate goal of colonial policy was to not have to augment land revenues for administrative purposes, although this was frequently done given the spatial fragmentation and difficult terrain of the hill regions. Pande notes that there was substantial pressure from “nationalists” to make these territories profitable or to end their occupation. Colonial administrators were keen to end this practice and settle populations on a permanent basis so they could assess and tax cultivated lands.
Thus came the introduction of the potato crop in 1843. Earlier experiments with tea plantations were met with failure due to the elitist structure of the plantation which was amenable to caste discrimination, as well as the fact that tea was not a useful product for times of crisis. The potato did not fall victim to either of these pitfalls and was readily accepted by the Kumaon hill peasants as it thrived on their hillsides, serving as both sustenance and a source of income. The cultivation of potato quickly exploded in correlation to the rapid development of nearby Nainital as a popular summer town with the British. Furthermore the potato implanted itself within the folk consciousness given its long shelf life. While its practical nature was appreciated by the peasantry, its commercial potential made it a lucrative initiative for the British (Pande 1999: 163-165). As potatoes grow best on virgin soils a period of deforestation took place once “potato mahals” recognized the commercial potential (ibid: 165). This rapid expansion of potato cultivation piqued the British’s interest, who suspended their nayabad laws\(^2\) and began to levy taxes on new cultivation according to the 1904 Gazeteer,

the only commodity exported to a large extent is potatoes. These are grown both for local consumption in Nainital, Almora and Ranikhet and find their way to the large towns of according to inquiries made in Haldwani it was ascertained that during the year 1900 no less than 32,371 maunds were bought up by the Banias (Pande 1999:173)

Yet, the introduction of potato and other horticultural crops have had a deeper impact on Kumaon then in merely its agro-ecological profile. Not only did the colonial legacy imprint a blueprint for export-oriented and extensive horticultural development, but it forged a set of hierarchical relationships around agricultural practices and land ownership that has been carried over by the Indian state and the NGO communities.

\(^2\) Nayabad laws were implemented by the British as a means to encourage economic development and essentially allowed peasants to expand their cultivation onto commons and forestland without having to pay taxes on such land until the next administrative assessment occurred.
The administrative practices employed by the British substantially changed the character of agriculture and the way decisions about it were made. In pre-colonial period village structure was typically dominated by one single extended family or lineage. Decisions about agricultural production were communal – this included “decisions about which lands could be cultivated and which ones could left fallow, when the harvesting could be done decisions about the irrigation management repairs and priority about fields to be harvested by communal labour etc.” (Pande 1999: 73) This model was completely undermined by colonial administrative practices that identified “hissedars” (proprietary cultivators) as the sole owner of the land.

The identification of ‘hissedars’ or landowners has haunted the region ever since its inception in more way than one. Almost immediately it influenced the social relations of the village, transforming a relatively homogenous group into a hierarchical one. Furthermore, it induced a competitive spirit between hissedars that was hitherto unknown. This was especially true as agricultural expansion intensified and the amounts of uncultivated lands diminished. While these effects are hardly unique to the case of Kumaon in the context of agriculture’s viability today it has taken on even more epic proportions. The miniaturization of landholdings is a problem reported across the sub-continent, and Kumaon is no exception.

Contextualizing this problem with the history of the hissedar is illustrative of the havoc that colonial policy still plays in the region. Through introducing potato as the region’s first major cash crop along with radically altering the system of land tenure ship, these historical policies have made a lasting impact on both the landscape of the region and the social relations that dictate how agricultural decisions are made. Whereas before it was based on a cooperative, communal model, today it is the source of competition, fraternal conflict, and frequent familial litigation over land rights.

What is crucial is that while the colonial legacy continues to impact nearly every cranny of people’s everyday lives, it has largely been normalized and seen as a teleological and natural
evolution of the region. Thus a discourse circulates the area where potatoes are seen to be akin to the old crops of *madua* and *daale*, and landholdings have only decreased in size in the last 100 years because of the irresponsible procreation of hill families, not because of changes in the ways land was administered. Furthermore, while the region never historically was capable of sustaining a population year round leading to annual migration, people never discuss this fact and talk of their lack of agricultural self-sufficiency as timeless problem, not a political manifestation. The normalization and enfolding of these practices into the common memory is an uncanny example of the ways that power conceals itself across space and time in this area of the hills.

2.4.2 Potatoes, begar, and the end of brideprice: the end of female autonomy

If agricultural and ecological change are perhaps the most studied aspect of Uttarakhand history, a second topic of considerable study is the unique 18\textsuperscript{th} century practice of ‘begar’, or forced labor, imposed by the Nepalese Gurkha rulers (1791-1815), and continued by the British colonial administration until 1921 (Pathak 1991). Pathak narrates the three phases of begar noting that the practice of labor conscription became especially brutal in the mid-19\textsuperscript{th} century as the colonial administrators looked for cheap labor both to develop what was turning into a popular summer hill station for those in Delhi and for military service.

Several scholars have linked the tradition of male economic migration and the tethering of women to the home as a key precedent to today’s heavy workloads even when males in the household are present (Gururani 2002; Rana 1996; Pathak 1991; Sind & Basu 2011). While male avoidance of forced labor sedimented their migration patterns, many historians concur it was the colonial desire to settle hill populations discussed prior that bound women to the homestead. However, further compounding women’s disenfranchisement during this period
was changes in their rights as Kumaoni customary law became increasingly adjudicated by colonial officials steeped in “English patriarchal law” (Pande 1996: 108).

Specifically, whereas before the practices of bride price, divorce, and widow remarriage were commonplace, the colonial authorities began a larger project that fundamentally shifted the socio-spatial notion of village and household making these practices obsolete. Foremost, was the educational reforms that greatly increased the number of schools which were populated with “texts… imbued with a Puritan work ethic, and with family values which cherished women's honor, enshrined the authority of the patriarch arid preached temperance, chastity arid monogamy” (Pande: 269)

The ideas and values conveyed in these texts pointedly undermined the pre-colonial Kumaon lineage system, which had “traces of a matrilineal order” and could be characterized by the practices of polyandry, bride-price, and levirate marriage (marrying the deceased husband’s brother). In tandem, these practices had an empowering effect on women’s autonomy, and thus her mobility. For example, the brideprice system “encouraged women who were unhappy in their marriage, to return to their natal homes…[where] they were welcomed by their family-members and often the parents would negotiate another marriage for their daughter.” (Pande 1996: 108).

Thus with marriage increasingly sanctified rather than “contractual” women’s ability to leave denigrating home environments ceased to be an option. However, the British were not simply imposing a Western puritanical moral code on the hills, and concomitant was the development of a “pan-Indian religious sensibility, based upon a broad and variegated Vedic belief system which had emerged during the late medieval period.” (Pande 1999: 270). According to Pande, this was most strongly seen in the epic poem, Sanvida’s Ramcharitmanas, which narrated an epic storyline that dismissed the practice of Bhakti (or “devotion”, an individualized or mystical religious practice) in favor of a Brahmanical caste system (where
the Brahman priest needed to be employed to communicate with the god-world). This maneuvering of religious norms had a further detrimental impact on women’s social positions and also worked to denigrate Kumaon’s lineage system through advocating a certain type of family. Pande (1999: 269-270) observes,

The diversity of family types of the Indian subcontinent were also replaced by the model of the family provided by the Ramcharitmanas, which clearly established patriarchy and formulated a belief that the woman’s salvation could only be achieved in service of the husband. Unlike Bhakti which allowed woman autonomy in spiritual matters, this world view did not make any such concessions. The archetypal family and social system portrayed in the Ramcharitmanas, synchronised with the normative family order and social system of Victorian Britain, and was able to provide an overall model, a cultural approximate for the different constituents of the Indian section of the British Empire. This perspective was not only insensitive to the multiplicity of family types that existed in the sub-continent but also regarded them as inferior and lower on the evolutionary scale.

The colonial system endorsed the Brahmanical family system through the practice of the revenue system which designated one individual from the family as the head, making them responsible for payments of land revenue. Doing this served to undermine the village community that had been the backbone Kumaon’s local life. With the eradication of brideprice and the encouragement of the nuclear family unit in contrast to the lineage system, women were made more firmly dependent on their husband. This was in sharp distinction from the autonomy, mobility, and relative freedom that women had in customary Kumaon culture, where adultery was seen as commonplace and women frequently left their husbands for other suitors, a fact that alarmed and disturbed early colonial administrators (Pande 1996:1) Further disturbing colonial administrators was the fact that sati or widow self-immolation was practically non-existent in Kumaon, in sharp distinction from its relative commonality in the plains. That is, as women did not face the same stigma associated with widowhood women did not engage the practice of sati. However, Pande finds that a vigorous campaign made by colonial educated “Kumaoni intelligsia” valorized the practice of sati or widow self-
immolation, and argues that this is further evidence of an overall changing attitude towards women that was taking place across Kumaon in the mid-1800s.

I take Pande and Pathak to argue that changes to both the region’s political economy (first through the imposition of begar, and secondly through the implementation of land revenue systems) along with a larger project of socio-cultural reorganization were fundamental in constructing the identity of the hardworking women of the hills through the imposition of various administrative practices and new socio-cultural ideals. In doing so, the avenues of recourse that women had when placed in exploitative marital homes all but ceased to exist. This occurred not only through her diminished autonomy, spatially expressed in her mobility from the homestead, but also in the debasement of the village community which served as a net of social support rendering women less reliant on her husband or in-laws and more so on the community at large. These historical shifts in family structure and attitudes surrounding women along with material changes in the political economy provide a necessary contextualization to the way that power operates in this hill region, including in terms of food and nutrition policy programs.
Chapter 3: Time Ni Hota Hai: Gendered Labor Time and Food Security

3.1 Introduction

“Main taki lagti hoon” (“I feel tired”).

This became the familiar refrain of Kamladi while I stayed with her and her family in Bhorasi. For Kamladi, along with many of the women with whom I spoke, days began at 5am and ended near 10p with a tight schedule of housework, animal husbandry tasks, agricultural work, water fetching, and cooking in between. As I examined FNS in Bhorasi and several other hill villages of Nainital district, it quickly became clear that throughout these busy days there was almost always food available through a combination of market purchases, home production, and grains from the PDS. While I did not see material food insecurity, what I did find was an overwhelming number of women who, like Kamladi, were simply tired. At the same time, though people always seemed to have ample supply of either gehun ki atta (wheat flour) or chawal (rice), most everyone conceded that certainly there were some days they ate significantly less food than others.

Thus, in Kumaon I found that food insecurity has a more insidious feature to it, which presented itself in the overall lack of gendered labor time. In other words, due to an excess of work, women oftentimes lacked the time, energy, or both to properly attend to food and nutrition practices. In my research this notion was evidenced by the fact that a main complaint when we discussed poor feeding practices or instances of food deprivation was that food either ‘got late’ due to too much outside works or that it was hastily and improperly prepared, rendering it less appealing to everyone, especially the children. Further, while some food was always available, it was oftentimes not something that was especially nutritionally beneficial or even particularly appealing. This was sometimes because households lacked money to purchase other more desirable vegetables, but more often it was because they lacked the time
to make the several kilometer uphill trek to the market. Importantly, analyzing FNS through gendered labor time highlights the paradox that on the very days that there was more physical labor, there was less time for food and nutrition practices, a notion that in and of itself was productive of anxiety and feelings of bodily discomfort.

The chapter will unfold as such. First, I will analyze the discourse that women in the hills work more and look to the political economic and cultural socio-spatial practices that the British implemented which effectively tethered women to the household while promoting male mobility. Second, after identifying the sedimented and routinized socio-spatial processes that create the script for ‘hill women’, I present findings that demonstrate these extant practices are to great consequence in the contemporary manifestation of food insecurity. This happens through the lack of gendered labor time which causes food to be unpalatable or late—a phenomenon that paradoxically increases alongside the amount of agricultural work and further compounds food insecurity through the production of anxiety. Third, I examine the organizational response and analyze how the identity of women is constantly being reinscribed through programs and policies that emphasize education and simple technical solutions to the problems of FNS. While the programs and policies provide assistance through lessening housework and providing food material, the work that they do through enlisting women based on their membership in a biological group has a more ominous tone to it (Kimura 2013). Finally, I conclude by arguing that NGO and government programs can play a more active role in disrupting the taken-for-granted assumptions about gendered work burdens. This is made easier through understanding that women’s capacity for work and their workloads are not an ahistorical manifestation descending from the forefathers but a much more recent by-product of colonial political economy and the forging of pan-Indian religious sensibilities.
3.2 “Pahari ki mahila jata kam kari hai” (“Hill women work more”)\(^3\)

Women’s work burdens in the Himalayan hills, including in Kumaon, is much commented on and has come to assume almost mythic proportion across India (Pande 1998). With unquestioning but rueful intonation people from Delhi to Bhorasi would generally lament “the women in the hills work more.” When I inquired as to why this was, people never ventured much of an answer except perhaps the obvious inverse “because the men do nothing.” The discourse that women in the hills work more has come to have a common sense understanding within Kumaon and across India.

I have already illustrated in Chapter 2 that this discourse was constructed by colonial socio-spatial policies and practices that tethered women to the home while encouraging male mobility. Colonial political economic practices were galvanized by a cultural project to ascribe Victorian and Brahmanic notions of responsibility and chastity onto women, undermining their autonomy and mobility. These historical practices are seen today in the socio-spatialization of women’s work that is centered on the home as both a fortress where favorable power relations might be staked out as well as a barrier to new opportunity.

To be sure, the fact that poor women in developing countries have egregiously high work burdens that remain undervalued is well-known and much discussed, being famously mainstreamed in the UNDP 1995 Human Development Report. This is no less the case in Uttarakhand with many studies noting that women often work 14 hour days, being the first to rise and the last to sleep with little chance for rest in between (Rana 2006; Sidh and Basu 2011; Sudarshan 2001). Several feminist scholars have used methods of time accounting to give value to homestead activity that is frequently overlooked in typical economic accounting methods.

\(^3\) Prerna, Anganwadi teacher, 7/4/2013
(Jain 1996; Samarasinghe 1997; the Commoner 2002). Furthermore, from the 1975 UN conference on women onwards an expansive literature on women in development (WID) and gender and development (GAD) has emerged, the goal of which is to ‘mainstream’ gender issues into all development practice (See Parpart et al 2000 for overview). Despite the intense academic and practitioner scrutiny that gender issues have received, there is much skepticism over the achievements of such rhetoric, with some researchers arguing that unreflective inclusion of women in development activities hems a narrow line of becoming exploitative in nature (Chant 2003, 2007; Dogra 2011; Doshi 2013; Doshi and Casola 2013, Nagar and Raju 2003; Young 2010).

In Kumaon, development activities tread this fine line between exploitation and empowerment in that they largely conduct business-as-usual, targeting women for home-based reproductive programs and men for projects with cash potential. In my field site, the use of self-help groups, once championed as a sustainable vehicle towards female empowerment, are largely used by women to take small loans to subsidize household activities, not for entrepreneurial activity. Moreover, when entrepreneurial activity is undertaken through outside work or educational programs, women are still held responsible for completing their daily tasks, albeit in less time and more hastily. As one NGO worker so aptly pointed out: alternative economic opportunities for women were presented as additional work to the work of the homestead and agriculture, not as an alternative. These findings resonate with Young (2010) and his critical ethnography of microfinance institutions in South India, suggesting this discourse is not a localized one and has resonances in other rural communities of the Global South.

Thus, in spite of greater recognition among the development community and broader public of the importance of women’s work, these gendered ascriptions of responsibility were still largely viewed as generationally static constructions by villagers, NGO workers, and
government employees alike. The government and NGO programs work within the spatializations wrought by the colonialists and exclusively engage women at the site of the home with FNS programs arguing that there is “some things that only women can do”. At the same time, programs often seek to empower women and give them opportunity outside of the homestead. However, this increase in outside opportunity (and responsibility) comes without any renegotiation of household labor burdens. Indeed, throughout my participant observation and informal interviews in both Uttarakhand and Delhi, I noticed an overall defeatist perception that ‘women in the hills’ do more work. For example in an interview with an ASHA named Asmiti:

> We asked her why she thought women here work so much more than men do. With a fierce grin on her face she replied ‘because they do’, we ask if it has always been that way to which she declared ‘that in the whole of Kumaon it is like this where the women do more work than men’. I say but did your mother and grandmother do this much work, or did they do less or more. Asmiti starts grinning again and says that they do less work now and that her mother-in-law is so much stronger than her and can do so much more work than her. And that her mother-in-law’s mother-in-law is so much stronger than her and can do so much more work than she can. At this point both Asmiti and Sanvi are laughing and saying ‘it is true, it is true’. A few minutes later I ask her if she ever wishes she had her mother-in-law’s capacity to work and she says yes everyone wants that capacity. I say but she is having the 3 daughters does she hope that they have the same capacity of work as her? They are laughing and she says she is not going to give the same life to her daughter and she wants to educate them and she wishes that they study and get a job and that is why they send them to the English medium school (7/6/2013).

The above interaction splays out the stark spatiality of the gendered dynamics of labor the hills. The socio-spatial aspects of gendered labor are a topic that has been commented on extensively by a long lineage of feminist geographers, with more recent work noting the “spatial stickiness” of social reproduction (Young 2010: 613; also Katz 2001)

> The multiple meanings that are attributed to the home, and especially the home as workplace is as diverse and numbered as might be imagined (Ahrentzen 1997; Blunt 2005, 2006; Marston 2000). Such as identities are fragmented, incomplete, and even contradictory—the space of the home has similarly complex meaning and might serve both fortress and prison.
In regards to the former, women indicated that in having a sense of control over their spatial domain of the home and rivalling control of the agricultural fields they have carved a space out which they are reluctant to forfeit so easily. This is seen in the following exchange, which is representative of many of the women respondents’ descriptions of household agriculture negotiations.

I ask if it is more her or her husband that takes decisions on what they are going to grow. She says both and she says that they both talk about this and they have same rights on these fields (Nanditi, 7/29/2013).

While the household and the agricultural fields offer a terrain where they can stake out power relations that they perceive as favorable, it also becomes a site with which NGOs and government programs almost exclusively target women. While this engagement may be seen to be common sense and reality based it also has to be seen as actively complicit in maintaining the status quo of patriarchy, and essentializing women’s identities. Thus while many women expressed contentment over their agricultural work, there was also a notion that they enjoyed this because they had ‘become habituated’ to such a life. From one fieldworker:

I ask her who she mostly works with men or women farmers. She says I mainly work with women but if in some families the man is very interested and they grow more crops then I works with them. The second thing is that because women do not have another option, they are not educated they cannot go out and get a job and do something else but they have no option except agriculture they just have to work so it is not all interest if they have interest it doesn’t matter if they have interest or not they just have to do it … She shyly qualifies the comment and says ‘that is just what I think’. I then say does she think that they like the farming or if they had another option they would leave the farming quickly. She said that if they have very good opportunity then they would think about it and they might go for it but mostly they cannot leave it quickly because they are habitual and they cannot leave fieldwork (Interview notes, Kriti, 7/24/2013).

The idea of women being habitual to excessive work was a sentiment espoused by many, often with a sense of perplexity. However, some women were less reflective on why women engaged in the activities that they did. Kriti, a younger and more educated female acknowledged that there was little actual ‘choice’ in the matter, others viewed the situation markedly different.
In a particularly animated exchange with one of Sanvi’s neighbors, an older woman who had been very active in NGO work and self-help groups argued that today there was not discrimination and that women could pursue whatever opportunities they desire. However, at the time of our interviews there was potato harvest and virtually all village women (and many men) were in the fields digging potatoes. Yet, at the same time we saw young males come and go on their motorbikes dressed in fine fashion as most were in English language studies and exempt from the mind-numbing and back-breaking work of digging aloo. Sanvi, always quick-witted, snapped back at her auntie “if there is no discrimination then why are all the boys in the homes studying while the girls are digging aloo”. Auntie sweetly replied “this is because by nature girls are sweet and humble and that if they see their parents in the field then they have to go to help but that boys are not so responsible” (Auntie, 7/3/2013).

Similarly, when I was speaking with the higher ranking NGO employees, Varsha and Pooja, I asked if more equitable work burdens might make such practices more feasible to women. Varsha lamented that this was something that could not be changed and that in Kumaon “there is not something you can do about it. There are responsibilities that only women can do” (Varsha and Pooja, 7/24/2013).

The notions of habituation along with the outright essentialization of women as hardworking and responsible, recasts the space of the home as more of a burden than a domain of authority and power. Indeed women often expressed desires to move past what might have been perceived more as a stifling social space. In the discussion with Asmiti she acknowledged the only way to give her daughters a different life was to send them to English medium school, which are farther away from the village government run schools. The idea that opportunity lay past the horizon of the homestead was a notion that was accepted by most, oftentimes rendering the more marginalized women with feelings of hopelessness. While we were interviewing one grandmother (ama in Hindi) her daughter in law returned from digging in the potato fields to
report back that due to the rain many of the potatoes were rotting. The *ama* comes back in the house and throws up her hands in the air, exasperated and starts complaining to a sympathetic Sanvi, from my field notes:

> The *ama* comes back and starts to talk to Sanvi again she says that it is so unfair because all year people have been working crazily hard on their *aloo* crop and put so much time and labor into these fields and now there is so little payoff. She says that she thinks that is why one who is educated is so lucky because they can go anywhere and do a job or something else (Interview notes, Anjali, 7/4/2013).

In another village where NGOs do not operate and the anganwadi centers and health workers are more geographically isolated we interviewed one woman, Lactadevi. As we ask questions about her agriculture she becomes curious as to why we are interested in this information and if an NGO is going to come work in the area soon. From my field notes:

> Deepak explains that I am a student and this is for my school work but that the info is being shared with his NGO who is doing works related to sustainable agriculture in the area and they will use info for planning purposes and understanding problems of area. I ask her if an NGO were going to come what type of works she would be interested in and she says very definitively that she thinks that they should create works for women. I ask what kind and she says ‘*bahaar ghar hai*’ (outside the home) or anything besides working in the agricultural fields or home (Interview notes, Lactadevi, 6/13/2013).

While Lactadevi was very knowledgeable about the agricultural practices and had considerable say in the choice over what crops were grown, she expressed a desire to move beyond these social spaces, something that only a few women I spoke with had the opportunity to pursue. When women did manage to access one of these opportunities (typically as a health worker known as an ASHA, anganwadi center employee, NGO fieldworker, or mid-day meal *bhojan mata*) they were still held responsible for their homestead works, just as they were when they were instead working the agricultural fields.

Thus, despite increased recognition of the need to examine gender within development programs, I found that in Kumaon programs largely continued in a way that targeted women for their socially ascribed responsibilities, offering them small part-time and low paid opportunities under the guise of empowerment, but which facilitated them still being able to
attend to household works. By promulgating these strategies, these organizations are implicitly ignoring the patriarchy, hill ecology, and poverty that continue to manifest themselves as malnutrition. As women are continuously cast in this light through programs, they continue to be incentivized to maintain the identity of a ‘hill women’ in satisfaction of this cultural norm. As we will see these roles are part and parcel with why malnutrition and food insecurity have been so persistent across the Kumaon hills.

3.2 The mundane face of food security

While severe food insecurity was not something I encountered while in Kumaon, the notion of a “bad day for food” was hardly a foreign concept, with people most often discussing food palatability, meal timings and frequency, or issues surrounding dietary diversity. In regard to the latter, good days meant that several kinds of vegetable dishes or special vegetables were made. Conversely, bad days were seen to be either days when less family members were around and they didn’t feel it necessary to prepare any vegetable so they ate with only milk, yogurt, or chutney (a mix of coriander, salt, and spices). Other responses in this vein discussed that sometimes there was repeating vegetables, typically potato, and that this was the source of bad food days (Anjali, 7/4/2013).

Many people also felt that they wish they could eat higher value foods but most people only ate the food that was available in the house, which is sometimes quite sparse. People particularly discussed the hot season and the winter as being bad times for dietary diversity. Further implicating village health outcomes are the fact that basic infrastructural development of roads and local markets has been slow to develop in the region. Thus an economic development strategy predicated on increased market interaction has not been matched with the basic infrastructural development that it would necessitate. Due to the spatial fragmentation and difficult terrain of these hill villages, traveling to local markets much less the nearest road
often involves an uphill journey of 1 to 3 kilometres. While an arduous uphill trip, the main reason households cited for not making the trip is due to a lack of time, not lack of money. As one woman lamented

basically the market is very far and due to much work we sometimes cannot travel to market, then it is a bad day for food, the nearest three markets are 5-6km, 8-9km, 10-11 km (Bharti, 6/3/2013).

Thus, it is important to recognize that while cereal security is not a problem in the households I interviewed, many said they were rarely able to eat the foods that they felt were most nutritious. Similar to many respondents, one woman declared that if she could feed her children any food she would give them chicken, fish, eggs but these foods are not available easily, and most of the time they are eating karela and lauki [types of squash] from the market or from their own land (Interview notes, Jhoti, 6/3/2013).

On the inverse, good days of food typically always related to days when atypical foods were consumed. This would typically happen at either a religious festival or a wedding, or if someone was traveling to the city. One man who was one of the more successful and entrepreneurial farmers in the region related that the day prior

he had to go to Haldwani to sell some crops so he ate dinner in a hotel and had salad, chutney, daal-roti’ he is laughing/smiling and says ‘for him this was a good day because farmers have less time to make food so every day is OK about the same, but yesterday we have some markets to sell so it is a good day (Interview notes, Sardarji, 6/13/2013).

The gendered dimensions of ‘outside food’ were also intertwined with perceptions of food security. Women stated many times that they thought men eat better because they are the ones to go to the market and they will eat foods that are not available to the women. Asmiti, the ASHA, noted that only rarely would her husband bring these foods back home to share with her or the three children.

However, the most common response to the question was when food tastes bad such as there is too much salt (namak jata), or too much chili (mirchi jata). I asked for clarification on
this point from both of my field assistants and they assured me there was nothing cryptic in the statement but that too much salt or chili powder was mistakenly added to the *subzi*. However, this was in fact highly troubling occurrence, as I personally witnessed many times and recorded in my field notes:

The house we were interviewing insisted we eat *kitcharee* with them for lunch and so we oblige. Sitting in an upstairs room Deepak and I set out pack lunches aside and the couple bring two *thalis* piled high with turmeric stained kitcharee. We thank them and they go to the kitchen to get theirs. As soon as we begin to eat something is off and I realize on the second or third spoonful that there is an extreme amount of salt. I look up at Deepak who is pushing the food around on his plate ‘*namak jata*’ [too much salt] we concur and try to stomach some more. We probably eat ¼ of the plate when we have to retreat, defeated, to the kitchen to admit we cannot eat anymore. The couple is sitting there trying to choke down there portions so they are kind and understanding. We ask them if they will make other food, as we have our pack lunches to eat later. Deepak scoffs at the question no they will not make it again, they will wait until dinner (field notes, 6/15/2013).

Some participants highlighted the positive inverse of this sentiment, saying that if food is lovingly prepared then a child will most certainly eat it and they will not be *so kamjor*. I asked an anganwadi center teacher in the village S whether once someone was *kamjor* there was a way to reverse such fortune or whether it was more of a chronic condition. She answered that yes it was possible to become *hutikuti* (healthy) with the right *khanpan* (food). Sanvi asks her to explain and she says (Sanvi’s translation)“

> If she is having good food then she will definitely be ok and she will be able to work hard. If you are making *aloo* but in a different way so it is very tasty instead of just boiling the *aloo* and mixing it with spices and everything where then she will not like it, but you are making in a very nice way and you are eating it and liking it and you are having food. If you are having good food like this then you will definitely be healthier (Prerna, 7/5/2013).

Another woman who was also *a bhojan mata* (meal mother) for mid-day meals explained “if parents are giving milk and little sugar and giving them good food then they will have it, but if there is more *namak* and more chili then they will not find it tasty and they will not have it and if they are not having food properly then thy will become *kamjor*”. (Shruti, 7/5/2013)

Lastly, I found that in households where there was elder, unmarried daughters or some other family member to assist with cooking and household tasks FNS situations were typically
perceived as better. For example, in responding to a ‘good day of food’ one woman comments “sometimes other people make food if I have done lots of work and am tired.” She goes on to say that her nephew and daughter are helping to makes these foods and she eats this food happily (Jhoti, 6/3/2013). In another instance I was asking a middle-aged woman named Medha if food ever got late and Sanvi laughed and says it does not happen. Sanvi explained “this women eats very well because her daughter is preparing the food every night and she does a very nice job.” (Sanvi, Medha interview, 7/3/2014)

3.2.1 Late food and the paradox of labor-centered FNS

Early in the research process it was clear from the number of villagers who discussed palatability or lack of dietary diversity, that the common denominator underlying all of these outcomes was a lack of time to prepare food. The severity of this notion took a marked turn after June 16th-18th as there were heavy rains across N. India that caused devastation across Uttarakhand, including Kumaon. The potato crop, the most expensive and one of the most important cash crops for the area was badly damaged after three days of torrential rains. Thus on June 19th there was a literal rush to the field by men and women alike to start ‘digging aloo’. It was at this juncture that I saw the notion of ‘labor time’ as the scarce resource that most threatened adequate FNS. From my field notes:

In Bhorasi and Orakarp people stayed in the fields until dark (around 730pm) and then came back, cleaned up, made chai, then began preparing food. Several times in Bhorasi I saw the 10 year old girl, Deepa, who was doing potato work all day fall asleep upstairs and not want to eat. Kamla [her mom] would sympathetically force her to eat a roti with subzi, which she begrudgingly did and slurped some dahi then proceeded to go to sleep again. One time when the elder brother was home he would make the subzi while the women and younger children were working in the fields, but even then they were still dependent on the mom to come back and make rotis. We were downstairs in the kitchen and she was quickly making the chapatti and the older boy called down that Deepa was hungry but falling asleep and then the mom went into overdrive…still when Deepti came down to eat she ate very, very less (6/21/2013).
Another woman reiterated said some days people were not focused on food because of other more pressing problems and “that days with lots of fieldwork or bad health and we are less focused on food are bad days” (Bharti, 6/3/2013).

This presents an interesting paradox for the household in that the days where there is more physical farm labor there is less time to take care of food and nutrition task— which is what people say leads to weakness and bad health. Moreover, when people are tired they neither want to prepare food nor eat food. There is also a distorted sense of responsibility that binds women in something of a catch-22, where she is ‘not taking care of herself’ while she attempts to salvage the potato crop and attend to home chores. One woman commented:

women keep working whole day and work from early morning to late at night and if she is not feeling hungry at night then she won’t eat and she will go to bed and then early morning she again will start working and if they are not having food properly then that is why they get sick and have disease and [women in the area] do not care about their health if it is raining they might continue working and they will get wet and still work and that is why most women get sick, because they do not care about health (Beedi, 7/10/2013).

And, another woman also discussed:

Kids become weak in the village for several reasons. People that have more children do not take care of them properly. Women have much agricultural work to do and do not take care of their children properly. Because they have so much work to do, they do not practice proper hygiene (Mooni, 6/7/2013).

Indeed, we often talked about the health of villagers followed by the health of men and women individually. People who thought that women had poorer health or were more often

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4 In Silong I experienced a different source of disruption in FNS routines in my second extended visit at the house. When I arrived the family solemnly informed me that the mother ‘was not well’. She had some infection in her knee that caused a large portion of her leg to become inflamed rendering her unable to stand for more than a few minutes so she could not attend to the daily animal husbandry tasks or assist with agricultural work. Consequently, the dietary regime of the household went into disarray. The 18 year old daughter, C, who worked 6 kilometres away at a rural back-office processing center (BPO) left for her walk at 6am in the morning to make the 8am start time. Thus the husband and elder, unmarried son were in charge of breakfast and lunch. Food was always late, and several times C had to make rotis before going to B2R in the morning. (fieldnotes, 7/24/2013)
*kamjor* attributed this to either tension or too much work. When asked why they think women are more often *kamjor* two ASHAs in the NGO infiltrated village comment,

> the first reason is they have lots of work, second they have lots of mental tension, third is that mostly the women are the ones doing family planning operations, and fourth other disease like lukaria and also they have to give birth and they have periods so that is why women are *kamjor*. (Asmiti and Radha 7/5/2013)

In a different interview with an anganwadi center teacher and her associates I asked what overall they thought of the health of women in the area, which became the topic of fierce debate.

Sanvi gives the options of *kamjor hai* (weak), *theek hai* (ok), *acchi hai* (good) or *bahut acchi hai* (very good). They loudly and quickly say *bahut achhi ni hai* (it is not very good!) and kind of look around at each other then decide to say *theek hai* (it is ok). I say so why do they think that women have *theek thock* (ok) health and are not *huti kuti* (strong, healthy). They say because women have more responsibilities then men because they have to do all of the household tasks, they have to look after children, they have to do agricultural work. They are just very busy and they have lots of work. As Sanvi translates Prerna adds that mostly men will have lunch then bathe then take rest for 1-2 hours but a woman has to wash all the dishes and do all the kitchen work and she doesn’t have time to sleep. Because while she is doing kitchen work her husband will take rest and after that when it is her turn to rest then it is time to go to the field. Also the second thing is that even if a woman is taking proper food and she is having everything still she has so much mental stress. That is one reason why they might be *kamjor*. (Interview notes, Prerna, 7/4/2013)

As the previous interview snippets indicate, tension or anxiety associated with work are oftentimes cited as reasons for why people become *kamjor*. After the rains it was not just the scarcity of time that became abruptly apparent, but the idea of tension or anxiety also arose as being a surefire harbinger of “bad food days.”

Interviewing women I found that sometimes they are having “too much tension” or “just do not feel like cooking” and prepared food quickly or without caring about it. Sometimes this is because they themselves did not feel hungry: “I don’t feel like eating or cooking today and I do not know why”, said one woman (Nanditi, 7/30/2013). It was here that the disparity between women and men became clear as they were responsible for the same levels of work and then the domestic production tasks in addition:
Right now I’m having a headache why? I have lots of work I have to wash the dishes and my husband is calling me and say let’s go to the field but then I have to hurry then I get confused first I should finish household work or go to field. If I have tension then I think all the work has to be done by me and I try to clear the tensions. And the human body sometimes you do not feel well, sometimes it is obvious you will feel not good (Beedi, 7/10/2013).

This is clearly a gendered terrain of household labor negotiations as displayed in the following interview with a quite wealthy married couple. From my interview notes with Aditi:

the woman first identified the lack of a ‘timetable’ in the hills as a problem for health and nutrition. She said that people who were wealthier, more educated, and with more access to different facilities were able to provide children with a timetable whereas families of a lesser socio-economic status were not. She cited this ‘lack of a timetable’ as the main reason that people in the hill region suffered poorer nutritional status than their counterparts in the plains districts. I asked whether agricultural labor tasks prevented families from implementing a ‘timetable’ and she said that this is the reason. Her husband interjected and said that he thought this did not matter and that if someone was educated or ‘awared’ then they would be able to implement the timeline (6/24/2013).

This interaction is instructive to understanding that in the rough environment of the hills there are often very material ecological constraints (the vagrancies of climate and agriculture) that serve as a major hindrance to proper FNS practices. While the woman in this interview is keenly aware of this fact, the man remains adamant that these constraints can be removed with proper education. This perception that proper education will remedy poor FNS practices is one that is largely mirrored by both government and non-government programs that operate in the region.

3.3 NGOs and Government Programs

In Kumaon, there are numerous government and NGO programs that address some aspect of FNS. The government offers the services of the public distribution system (PDS), anganwadi centers, Accredited Social Health Activist (ASHA), auxiliary nurse and midwives (ANMs), and mid-day meals for school age children. Barring the PDS, the overwhelming focus is on pregnant and breastfeeding mothers, and to a lesser degree, teenage girls (kishori). The NGO operating in the area has a separate ‘health’ program that it implements which includes
activities such as ‘health camps’ where women can come and get their iron levels checked and see primary care physicians. This program employs several women fieldworkers who also seek to impart education and serve as resources to both community members along with the government health workers. The NGO’s main goal is not to create parallel services but strengthen government institutions such as the village-level swastaj (health) committee. At the same time, the NGO and government services offer employment and livelihood diversification options for women that are intended to increase economic and social autonomy while diversifying incomes away from highly variable agriculture.

These programs engendered a range of processes and outcomes some of which sometimes appeared to contribute to overall levels of FNS and household well-being, and at other times seemed to have little impact or even have an adverse impact through increasing the gendered labor burden of the household.

Thus, NGO and government programs largely address FNS either directly or indirectly in two spatial domains. One section of these program sought to educate women and improve their ability to conduct household FNS and health tasks whereas the other broad set sought to empower women through alternative livelihood opportunities, a practice that is frequently stated as being important to improve household nutritional status. The spatialities of these programs capitalize on and reify women’s identification with the home as both a favorable domain as well as a stifling social space. Whereas the set of programs that engage women in the house seek to construct a new more responsible housewife and caretaker, the programs that promote empowerment tend to focus on extricating women from these delimited social spaces. All of the programs were hinged on a discourse that ‘women in the hills’ work more and a static understanding of both culture and identity. Nevertheless, many do provide short term relief in subsidizing women’s work burdens through food preparation and childcare. Coupling these practices with increased engagement with men at the site of the household may provide
more lasting relief to poor FNS practices. While change is not going to occur with any great haste, continuing to engage women with their culturally inscribed roles leaves little room for different FNS processes to occur.

3.3.1 Making a “Better Housewife”

Due to a chronic excess of work, women often approached many new programs hesitantly and adopted new practices only if they seemed a worthy investment of time. As a result, a large part of government and NGO workers jobs were communicating the importance of participating in these practices. One NGO worker named Nikita relays:

The ASHA gives info or ANM gives info on proper types of food. The ASHA gives more of this info and ANM also gives some. ASHA tells them about the schemes and then also she says to them if you are not using the things then these are the dangerous things that can happen. Like for example if you do not do the vaccinations or the registration or take the iron tablets then these are the risks (Nikita, 6/22/2013).

However, while many of the practices associated with antenatal care such as receiving ultrasounds, eating more iron-rich vegetables, and taking iron-folic acid supplements were adopted; others – such as boiling drinking water or taking more rest from agricultural work – were routinely ignored. Interviewing the ASHA Asmiti and the ASHA from the neighboring village Radha:

We ask when [a pregnant] woman first comes to them for registration do they give advice on how to take care of themselves? She says they ‘give her advice like eat hari saag (leafy greens), doodh (milk), dahi (yogurt), and to go for checkups and ultrasounds. Sometimes women do not eat the iron tabs and most women feel like vomiting [after eating them] but they SHOULD eat them because they are very important. So do you give them advice on sleeping and working? The lead ASHA says we advise women to sleep 2 hours after lunch and don’t do hard work like heavy lifting. I continue, in general do they think the women follow advice about hari subzi (green vegetables) or sleeping, or no? She says that they follow advice on feeding practices and they know they should drink milk and eat hari subzi. They also tell them to sleep two hours after lunch but women don’t follow advice and they say do less work but they think this is also not followed (Interview notes, Asmiti and Radha, 7/5/2013).

Given the main constraints that women faced in securing FNS, this is hardly surprising. That is, if the main barrier to ‘proper’ FNS practices is lack of time or labor power then it is
counterintuitive to introduce interventions based on increasing the education or economic power of women through alternative livelihoods (as these are all time-consumptive activities), without also working to renegotiate household labor burdens.

Of course, many NGO employees were well aware of the extra burden that their programs placed on women. Kriti, the young female NGO fieldworker laughed as she intimated to me that when she enters a village the women will “run the other direction and curse under their breath because they know that the NGO people always have new ideas and projects and they do not have the time” (Kriti, 7/29/2013). At the same time, this young woman felt pressure from her superiors to enroll more villagers into these programs, despite her lingering doubts at their effectiveness.

Within the same NGO, I asked the senior officials in charge of health programming whether they felt that women’s high work burdens and lack of time adversely affected nutritional outcomes. They acknowledged they did and that one of the activities involved in baseline assessments was working as a group to make a timetable of women’s daily activities and chores.

basically with PRA [participatory rural appraisal] in the past what we have tried to do is make a chart of a women's daily schedule and then maybe talk about how if she spends x number of hours getting water or fetching firewood what things could be incorporated into her lifestyle that time is cut up in for instance using an improved cook stove would require less of use of time spending fetching wood. But those kind of changes, we have done (Varsha, 7/242013).

I asked if this was to help women better manage their time, and Varsha hesitated, saying that it was not about time management but finding areas where time could be saved. Many times these included other areas of activity for the NGO. For example, if women were going to the forest to collect fodder for livestock then officials suggested they plant special fodder trees on the margins of their land to cut down on travel time. The same type of solution was proposed if women were traveling long distances to gather water, they were encouraged to enroll in
watershed management projects to promote groundwater recharge and allow for closer spring sources to regenerate.

Nevertheless, NGO workers and government employees expressed frustration at villagers’ tendency to be selective about which behavior they adopted. When asked why they thought women did not do certain practices, workers acknowledged women in the area had higher than average workloads, yet maintained that if a more scientific understanding could be communicated they might reconsider their decisions.

Carly: the things I keep hearing is creating awareness about proper nutrition, but many times in the village they are not doing these things. So what do you think some of the blockages are between having the knowledge about nutrition and how to take care of oneself and actually doing these practices? They both laugh and Pooja starts out by saying it is “sabse problem” (the whole problem)

Varsha: translates that Pooja saying is that is while they can connect good health and eating, a deeper understanding is lacking. For instance if we suggest to them have green vegetables you know what aspect of green vegetables is good for their health whatever it’s giving them, [but] they don’t have that understanding yet.

C: right, the science behind it?

V: Yes the science behind it right, so I mean they understand that eating fruits is good but not what fruit will provide them with what, that information is obviously lacking

C: yes

V: Similarly with for instance we started asking people to boil their water before drinking so while they have that work, they think it is nothing serious about it, so those things they haven’t taken a lot of our suggestions yet

C: So why do you think?

V: it’s probably too much effort (Varsha 7/24/2013)

In addition to not adopting health and nutrition practices that they advised on, a second main concern was that the programs and services were not utilized to their full potential. For example, pregnant and breastfeeding women and teenage girls are eligible to receive rations of a nutritious cereal mix (formally indiamix, colloquially referred to as dalia) every month from the anganwadi center. However, the focus on corruption and bureaucratic inefficiency means that there is a strong discourse in the country that these food materials are not usually available
in the *anganwadi* centers. I inquired one teacher if receiving grain shipments from the government on time was a problem and she gave me a surprising reply:

She says no there is not a problem from government side because transport is available to send. But, she continues, there is problem from the villagers side because they do not come to get it. I ask why she thinks they do not come to get the things. She laughs a little and says “they says things like we will come tomorrow and take, we will come next day and take. They take it, but never in time, they are always coming late”. I ask who it is that normally comes to get the *dalia*, and she replies ‘*jata mahila*’ (more women). Then she says sometimes the men come but more often it is women or older children (Interview notes, Neha, 6/24/2013).

Despite the clear structural constraints as a result of patriarchy and poverty, institutional actors including NGO workers, government trained community health workers, and high ranking officials from international development agencies in Delhi maintained a discourse that simple solutions communicated to women were the most effective and economically efficient way to effect major change. Interviewing Sumit, a higher ranking man who is also in charge of a national consortium of agencies dedicated to ensuring nutrition security, he stated that solutions to health and nutrition problems were best achieved at the level of the household through the guidance and facilitation skills of a nutrition counselor. He echoed the sentiments of the local NGOs I spoke with in asserting that the problem with households not appropriating proper practices was due to lack of knowledge or an unwillingness for people to compromise to feasible solutions rather than because they had more structural constraints of not enough time or money.

Throughout all of this I became profoundly curious as to how people envisioned the males might participate in or take responsibility for FNS and health practices. Asking the role that men should play in supporting health and nutrition programs quickly became my favorite question as it was always met with strong response from one man laughing, yet another shifting uncomfortably in his chair while acknowledging the NGOs ought to be more reflective in how
they view women’s labor. Sumit, a higher up employee at an international NGO started laughing and said,

Men is involved like well, there is still a long way to go but suppose mother is going for an ANC [antenatal care] check-up we are encouraging a male member to escort. It’s not because she cannot go it is because he go and observe what kind of really things happening…Another example suppose the IFA [iron-folic acid] supplement, each pregnant mother need to take 100 IFAs so…maybe husband is reminding to take a tablet before going to sleep, no? Those kind of things… (Sumit, 7/16/2013).

Sumit spoke to me with a bit of incredulity in his voice at what he may have seen as a naïve question. Indeed a constant sentiment espoused from NGOs is that there is little they can do to disrupt existing systems of oppression, and that it is better to work within the confines of reality to make what material change that they can. Operating under that logic however, delimits the possibility of reflection on how continuing to operate along the status quo is also complicit in reconstituting these systems through everyday socio-spatial practice.

3.3.2 Women’s Empowerment: Alternative Livelihood Opportunities

One way which is seen as instructive in breaking out of the socio-spatial delimitation of women to the home, is through increased livelihood opportunity under the popular development mantra of ‘empowerment’. Indeed, one man at the local NGO proudly declared that their work was “built on the backs of women and empowered them to be active in the community” (Chetan, 7/26/2013).

This is a dicey sentiment in that empowering women to be active in the community was profoundly important to many of the women I interviewed, it was a difficult proposition when it meant taking time away from existing work such as to attend trainings and workshops or to engage in new livelihood opportunities. While female empowerment is a laudable goal, in practice it is difficult to assess whether these organizations are not simply deepening the exploitation of women by viewing her labor as a ‘natural resource’ whereas the opportunity cost of men’s time is higher. Indeed, some researchers have argued that unreflective inclusion
of women in development activities hems a narrow line of becoming exploitative in nature (Dogra 2011, Doshi 2013). Furthermore, the substantive practices that were involved in women’s empowerment were sometimes hard to discern.

Carly: So the other thing is reading through the program material it seems that women play a very central role in all of these sort of interventions, and I am just curious as to how the coalition sees men and what role men can play in achieving nutritional security.

Sumit: Well men are doing, (laughing), women empowerment is one of the major kind of focus and men...

C: by women empowerment could you just clarify what you mean?

S: It is a kind of as I said gender issues and engaging them in a household level food decisions and spending decisions.

C: And how is that being done?

S: Hmm you want..(smiling) mostly there are some capacity building programs around those, some tracking methodology also, how this empowerment is happening at the household level as part of the [larger project]. So the capacity building is not a separate gender training or empowerment training but engaging them like the SHGs I said and getting more economic power to women members of the family within the existing programs and schemes (Sumit, 7/16/2013).

Despite the fine line of women’s empowerment that development programs typically hem, formal employment in either an NGO or government position were generally looked on favorably by women with whom I spoke. Many women seemed to have found great satisfaction and confidence in learning some responsibilities outside of the home. However, these newfound economic incomes did not typically release women from their household and agricultural works. I heard two different accounts of how working at an anganwadi center affected a woman’s ability to take care of her FNS tasks.

The first women, Meeladevi was dressed in an aqua blue sari, young, and educated with a master’s degree. We approached her for a household interview and soon came to know that she herself worked in an anganwadi center. When we asked her what a good day of food was she noted that yesterday was a good day. P queried why and she says that ‘nowadays we are on vacations and so now we have enough time to work in the fields’. P clarifies with her that there is a small vacation for the anganwadi center and she says yes for 3-4 days. We clarify and ask was yesterday a good day because she had enough time to work in the field, and she says yes. Then I ask her if it is ever difficult for her to be in the anganwadi center and also do agriculture work. She says yes quietly and her brother-
in-law chimes in to say that it is half day work in anganwadi center and half day work in field and it is not enough money’ (Interview notes, Meeladevi, 6/29/2013).

About thirty minutes later into the interview we are discussing the rations they take from PDS and Meeladevi starts blushing and laughing.. This was recorded in my interview notes:

She is laughing and says something to Deepak. Then she says she is scaring right now but through this information she wants to say that they have closed the anganwadi center for two or three days due to too much work and now she is afraid we will come to know. She says please do not tell anyone. We say ni ni ni ni and reconfirm that it is anonymous and confidential and that we will not tell anyone (Interview notes, Meeladevi, 6/29/2013).

These conflicts were not always present, however, and depended a great deal on the level of household and agricultural responsibility that women had. In a second instance we spoke with anganwadi center teacher from a different village. In asking her if she had problems managing this work with those of the home she seemed surprised and said no because the anganwadi center hours were fixed from 10-2pm. I then asked her what type of agriculture work she does and Deepak quickly interjected to say that her husband had a job in the city and they were not doing agriculture anymore (Neha, 6/22/2013).

Thus the employment opportunities offered up a chance for women in developing new sets of knowledge and experience in developing authority in domains outside of the household or the agricultural field. However, with meager incomes and no renegotiation of household tasks these opportunities can also be seen as exploitative and simply exacerbating the already excessive work burdens, and depoliticizing the political economic construction of the current state of affairs.

In another instance the NGO had set up a ‘women’s’ agricultural cooperative. Deepak and I spoke with the area head of the NGO about the cooperative to understand the barriers and obstacles. This was nearing the end of the fieldwork and we had interviewed many men and women who had discussed their participation in the co-op with us. I was, thus, quite surprised
when Rajiv (who had a propensity for long and unprovoked monologues) offered up the following statement on the NGO strategy to improve the marketing situation of farmers,

We are doing different things and selling the Kumaon product [fruit, mostly] with women’s name to many different markets. Then if someone will purchase this product and see what they are eating and where it is coming from then one day our aim is that in the Chennai mandi will have direct contact with the mahila co-op (Rajiv, 7/24/2013).

As most of my information about the co-op and its inner workings had come from three or four men I was confused and verified I had heard right, this was a women’s cooperative and if so then what about Raju and Sardarji [the men who had spoken extensively and were clearly very involved in the co-op] what co-op are they involved in? Deepak translated, and as the area manager Rajiv had spoken with me several times already he had always had a bemused skepticism towards my inquiries, but now his tone turned defensive. From my field notes:

He says “hahn, hahn” (yes, yes) and I say so only women are involved and he snaps it is only for mahila. I protest that most of the people that have talked about it are men. Deepak says the name of the man we interviewed the day before and then Rajiv says that Raju is not a coop member but he sells the other farmers product but that other farmers are selling their product through the cooperative and the cooperative is taking a commission from that product. He says and that Sardarji person from Silong is the coop secretary. He begins to offer a rationalization for this involvement of men and continues (Deepak’s translation),

“the season is going on and the coop is sending their product to market. Suppose it is dark, the women are preparing food and so these men are ‘noka’ (servant) of the coop. Women have decided that if they do that work then you will get payment. So it is women’s co-op, but sometime truck and transport comes late and the man is doing these things. It is difficult for women to stay or wait at nighttime. That is why they employed men”

I ask so why is it called a ‘mahila co-op’ (women’s co-op) and not a ‘kisan co-op’ (farmer co-op), and Rajiv, irritated laughingly tells Deepak

Now it is the start of the co-op and you can say it is kisan coop but in future it will be mahila coop. But according to her everything should be mahila even the truckwali’ (Interview notes, Rajiv, 7/24/2013)

For Rajiv, and many others I spoke with the idea of engaging women outside of their culturally prescribed labor burdens was an idea that was worth mocking. Not dismissing the difficulty of working to dismantle oppressive ideals of femininity, viewing identities as performed and culture as continuously constituted removes the impunity with which the NGO and government might operate under. Furthermore, through a historical politicization of
women’s social status a platform might be created where engagement with both men and women is seen as a viable strategy.

3.3.3 Programs that Subsidize Household Labor Burden

It is important to emphasize that many of the development programs that I looked at had positive impacts in improving the lives of women, children and men. Introducing improved technologies and improved education to make household tasks quicker or more simple has definite material ramifications. Furthermore, I specifically saw that development programs that subsidize the gendered labor burdens such as school lunches or feeding programs where prepared foods are served have a greater impact on food and nutrition situations.

The importance of the labor reduction aspect of MDM can be seen in a simple comparison between children who went to Government run schools and those who attended private. The latter children were required to bring a pack lunch with them, which required a female in the household to make extra chapattis in the morning and additional subzi. While sometimes this task is not so difficult, other times it is quite troublesome. Morning is a hectic time in the household as animal chores and morning fieldwork is being done, rooms are being swept, and children are being bathed and helped to get ready for school.

Due to this excess of morning work, a common practice to save time is to only make chapatti and eat leftover subzi from the previous night for the morning meal. If this is done there is rarely enough to also supply the child with an adequate daytime portion. Consequently, large numbers of children end up bringing 2-3 roti with a subzi substitute typically in the form of aachar (pickles), jam, or sugar. Another common replacement for a lunch of subzi-roti was Maggi instant noodles or other packaged foods from the dukaan [small shop] such as biscuits. Furthermore, a visit to a couple private schools found that it was not uncommon for at least one or two students to ‘forget’ their pack lunch at home, in which case they had to share with
a friend or simply not eat. This was particularly true in large extended families, such as was Arludevi—who had 17 people living in her home and was the eldest daughter-in-law.

I ask if the school age kids get a mid-day meal and she says they go to a private school and bring a lunch pack that is chapatti and ‘chini, achar, jam or subzi’ (sugar, pickle, jam, or vegetables) I ask if it is a problem to make the lunch pack in the morning or if she is already making lunch pack for husband since he is mason. He is sitting closer to her now and they are joking around and he says that making more chapattis in the morning is always a burden. He says she is eating two or three and packing two or three. He says all of us are ‘2-3 eating and 2-3 packing’. She is smiling too. He says every morning the house needs 60 or 70 chapattis. I say 60 or 70? Then I ask who makes them and she says she makes all of them. She says there is system where she is preparing the foods in the morning while the other wives milk the cows and take care of other works. Then at the lunch the elder mom is making foods and the other two wives make the food in the night. (Interview notes, Arludevi, 6/15/2013)

By being guaranteed healthy and large portioned lunch at school, it was one less task on a long list of morning chores for women. Anyway in which programs can work to reduce the women’s work burden in this area contribute to the overall food security of the family as she has more time in the day to complete her work, which helps ensure that she has the time and energy for making the night time meal. Children that went to private schools and did not receive a mid-day meal typically received some pack lunch that was hastily thrown together given the rush of the morning. Furthermore, the fact that children frequently ate a variety of different daals (pulses) at lunch occasionally translated into demanding similar diversity at home. We interviewed one Bhojan Mata who said that she thought:

if someone is kamjor maybe they do not eat properly. At home kids have whatever is available it does not matter if they are repeating or having 2-3 times per week and at school they are not having one thing twice and they are having subzi and daal and rice. That is why maybe they do not like gharka khana (home food) after coming from school (Shruti, 7/5/2013).

The sentiment that school food was superior to home food frequently exposed itself when a lingering child might enthusiastically comment that lunches were good. During a household interview one woman and her elder daughter excitedly talked about mid-day meals when we asked “what kinds of foods do small kids demand?” She reports “because they have good foods
in school at mid-day meal they want good food like daal-roti and daal-bhat” then the elder daughter cuts in and says “we have such nice food in school we have anda, maggi, malka daal, chana daal”. I say so you like mid-day meal? She is grinning widely and says hahn! (Interview notes, Monica, 7/11/2013)

Anganwadi center’s functioned in a similar manner, whereas while the cooked foods prepared for the children were a welcome addition to their diets, what was more a more important subsidy to the household was the education and child care that was being provided. I asked most households that reported children attending the anganwadi center their motivations for sending them and nearly all said for educational purposes and that the food was merely an added bonus.

On the other hand, programs subsidizing production and livelihood activities add to the work burden, and can create negative FNS outcomes. Despite this distinction, it is crucial to recognize that all programs remained complicit in targeting women, ignoring men and consequently perpetuating the inequitable labor burdens that disempower women and make poor food and nutrition outcomes a reoccurring reality. Denaturalizing these highly inequitable work burdens as not a natural facet of life, but a specific political and economic manifestation of historical policy and practice may allow one opening for which organizations can help to question these structuring systems of exploitation

2.4 Conclusions and reflections

These mundane facets of everyday life that are ignored by FNS policy are what Kimura (2013) alludes to when she calls it paradoxical that women are seen as the passive recipients of food and nutrition policy. That is, with the entitlement to receive so many kilos of wheat and iron supplements in tandem with knowledge about eating hari subzi and boiling water, women can be transformed into agents of change in improving child mortality and morbidity. While
these services that are offered may offer benefit, they are insensitive to the fact that what women really seem to lack in the hills is the time and energy to undertake additional tasks. Similar to India, Kimura notes that in Indonesia women are seen as ‘the key to malnutrition’. This presents a contradictory casting of the problem in that the solution is women-centered when the main problem is that women do too much work. Kimura is quick to recognize that while women are seen as not only the victims of malnutrition but as the linchpin to successful interventions, they are rarely asked what they need to solve the problem. The devaluation of local knowledge around child care and nutrition is shaken with the imposition of experts that seek to impart knowledge to women.

While the strategy to impart simple, education-based solutions programs may be misplaced, several programs do have some benefit in the immediate subsidization of housework and the opening up of employment opportunities outside the home. Government programs and NGO programs that subsidize ‘labor time’ tend to have larger benefit than those that subsidize production for food and nutrition. Programs such as mid-day meal and anganwadi center offering childcare and supplementary nutrition, which reduce women’s workloads while providing nutritious foods. Providing employment opportunities for women is seen as the critical means with which to disrupt these labor burdens. However, to date, all economic opportunities thus far are made to women in addition to their traditionally ascribed roles.

As discussed in chapter 2 the gendered socio-spatial ascriptions of responsibility were initiated by the British, but they have since been taken up with vigor by an Indian developmental state and the emergent wave of international development specialists and grassroots NGO workers that have come to typify the rural Indian landscape. Thus, today the focus of FNS interventions has become educating and assisting women to learn better household management strategies, rather than the much larger task of questioning the
oppressive logics of patriarchy and poverty. I argue that if NGO and government agencies are serious about addressing hill poverty and eliminating food and nutrition insecurity a more effective strategy might seek to disrupt rather than legitimize women’s gendered labor burdens. While processes of empowerment are non-linear and sometimes contradictory, scholars have been quick to point out that this should not preclude grappling with these systems of oppression. As I will elaborate upon in the conclusion, one way of addressing this messiness is through a feminist commitment to alliance building (Nagar and Raju 2002:8). It is in the spirit of alliances that I shift my focus to other points of resistance within Kumaon’s assemblages of FNS.

While this historical construction of gendered laboring bodies has had implication for processes of social reproduction, these are not the only bodies that are at work in ensuring the day to day and generational survival of Kumaonis. While the fact that food was late or that people had to eat what was simply on hand because of lack of time to make the trek to the market, people also had much to say about the more subtle qualities of the foods they were able to eat. In the next chapter, I will employ the concept of food as a “vector of intercorporeality” to discuss how the incentivization of new types of agricultural production has come to impact people’s perception of health. While distressed agro-ecologies are transformed into food and then consumed through a “two-step metabolic process”, I argue that the resulting diminished perceptions of health have both a material reality as well as an ideological dimension (Goodman 1999: 17). I use Ramamurthy’s (2003, 2011) concept of perplexity to understand the excess of subjectivity that emerges as new types of production and consumption are desired intellectually yet resisted through affective, bodily reactions. Importantly, it has been argued by scholars that this visceral realm might serve as a unifying space for forging ethical alliances between the humans and non-humans comprising the socio-natural world (Hayes-Conroy & Hayes-Conroy 2011).
Chapter 4: Shifting Practices/Shifting Perceptions

4.1 Introduction

Over the past twenty years, the hills of Kumaon have come to be a landscape speckled with cabbages and peach trees. This is a far cry from what the region historically produced, which was a mix of staple grains along with an assortment of vegetables and spices for household use. With the arrival of British colonial authorities in 1815 the introduction of potato also became an important, if problematic crop in the hills area. But never cabbages.

The cabbage thus becomes a motif with which to discuss the changes to agro-ecology, health perceptions, and subjectivities that continues to unfold in the region. The state-led shifts in the region has had a transformative effect on the people and their aspirations and desires, producing a set of material and ideological contradictions cross-cut by factors such as gender, generation, and caste.

At the heart of these changes, is the fact that many people now believe that new practices of food production and consumption have adverse impacts on their health. They believe this happens in several interrelated ways including through using and consuming more chemicals, eating foods they deem of lesser quality, and changes in the types of foods they are eating. I argue that through the production and consumption of food they find to be less healthy, this strategy of economic development adversely impacts the very systems of labor that it is predicated upon. As demonstrated in the previous chapter, these systems of labor are already historically strained due to the gendered labor roles that were constructed through colonial practices, extended by post-independence government programs, and reinforced by the community of international development.

Furthermore, while many institutional actors herald the development of horticultural crops, others were less sanguine. Many farmers expressed contempt that the promises of gobhi
have diminished over the last twenty years and that the *aloos* of their forefather’s time are increasingly subject to a vagrant climate. The recent experience with horticultural production has, in fact, left much to be desired. Nearly every person who spoke with me complained of land degradation, crop failure, an increasingly uncooperative monsoon, indebtedness to their ‘Bania’ (middleman trader) in Haldwani, and being subject to the whims of the market.

Despite these experiences, most villagers remain committed to the project of capitalistic economic development that has enfolded the region and engendered these new practices. An influx in cash incomes has had a dramatic impact on the people and been influential in producing subjects of consumption possessive of novel aspirations, desires, and ideals. As one man from the horticultural office so proudly declared “now we eat like they do in Dilli” (Pranav, 6/22/2013). As the quote alludes, increased mobility and the opening up of new spaces of consumption play a large role in stoking the new desires and tastes of rural villagers. This happens through increased ties to the main market in Haldwani as well as a bidirectional flow of youth that are seeking educational and work opportunities in urban areas. This new flow of information has crystallized an imaginary of a modern, consumptive lifestyle for many of the villagers with whom I spoke.

This chapter unfolds as such. First, I unpack the economic development that has overtaken the area from the time of British arrival in 1815, but with specific focus on the last twenty years. I analyze how these shifting practices of production and consumption have produced new perceptions of bodily wellbeing, while at the same time being productive of new desires and aspirations. I argue that the government and nongovernment policies and programs to develop the region may be contradictory in helping the villages achieve food security. This contradictory situation happens as increased incomes may improve economic conditions to purchase foods, it does so at costing the villagers access to food they deem to be the most nutritious and good for health. Furthermore, due to increased exposure to capitalist style
consumption practices villagers have new priorities for money expenditures which do not always align with goals of FNS.

4.2 Aloo and gobhi: An economic development strategy for the hills

In this section I parse apart the shifting processes of production that have overtaken the area. Political ecologic change has been occurring from the time of colonialists, who introduced the potato as a cash crop while privatizing the land tenure systems to foster increased capital accumulation. This extensive accumulation has intensified in the period of independence with the introduction of green revolution technologies, particularly the promotion of fruit trees and cash crops along with their required chemical inputs. While these crops once fetched high prices from the market, today they deteriorate farmers’ soils and are now subject to increasingly variable monsoon patterns. While the ecological impacts of green revolution and horticultural interventions are well-documented, there is less work that investigates how these changing practices impact people’s habits of consumption and perceptions of health (but see Bonnin & Turner 2012).

While people relate that horticultural development happened 15-20 years ago, it was in fact only the latest round of it. Due to the fact that substantial agro-ecological change happened across the course of the 19th and 20th centuries at the hands of colonial authorities, it becomes impossible to untangle the current agricultural scenario from the enormous impact that colonial rule had on the region. Of particular import to the British legacy on the region’s agriculture is the longstanding reign of the potato, a crop of promise and peril in today’s times.

At the core of British policy was an attempt to create profitable activities in the hills that would allow historically transient populations to settle and cultivate lands which might then be assessed and taxed. As much scholarship on colonial agricultural transition has indicated, there were strong moral currents surrounding ideals of civility and modernity that
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intertwined with British profit motive in encouraging peasants to begin new practices of agriculture (Gupta 1999). In Kumaon this amounted to the introduction of the potato crop in 1843. While earlier experiments with tea plantations met with failure, the potato was heartily accepted by the Kumaoni peasant and quickly inserted itself into Kumaoni peasant culture. At the same time, the booming development of the nearby British hill resort Nainital, meant there was no shortage of hungry British who demanded this familiar vegetable (Pande 1999: 163).

Despite the clear historical accounts of agricultural transition at the hands of colonialists, villagers always grouped potato in as an ‘old crop’ from the time of their forefathers. As I stumbled across the colonial 1904 Nainital Gazetteer midway through my fieldwork I shared my findings on the origins of the potato in the region with Deepak, who was stunned as he had grown up with the idea that potatoes, millets, and daals were the crops that had always been grown. Researching the origins of the Kuamoni potato, I found that introduction of potato and other horticultural crops have had a deeper impact on Kumaon then in merely its agro-ecological profile. Not only did the colonial legacy imprint a blueprint for export-oriented and extensive horticultural development, but it forged a set of hierarchical relationships around agricultural practices and land ownership that has been carried over by the Indian state and the NGO communities.

The identification of ‘hissedars’, or landowners has haunted the region ever since its inception in more way than one. Almost immediately it influenced the social relations of the village, transforming a relatively homogenous group into a hierarchical one. This was especially true as agricultural expansion intensified and the amounts of uncultivated lands diminished, and a competitive desire for land began to emerge. While these effects are hardly unique to the case of Kumaon in the context of agriculture’s viability today it has taken on even more epic proportions. The ‘miniaturization’ of landholdings is a problem reported across the sub-continent, and Kumaon is no exception. Many people I spoke with said that the small-sized
landholdings that are continuously divided further among the sons is “the problem” for viable agriculture. In my kitchen conversation with Deepak’s uncle during the two days of heavy rain he waxed on about the situation of agriculture today:

He says before 20 years the mahangri (rate increase, inflation) was less in comparison to today. Before that population was less, where one family will have 200-400 naali land holding so they grow gehun (wheat) and madua (finger millet) and it is enough for family. But dhire dhire dhire the mahangri increase, the number of families increase, and the landholding is decreasing. He instructs me to draw a circle in my notebook to demonstrate this principle of land division. He shows that there is one land holding and this man has two sons so then land holding gets split in half. Then maybe each son has three more, which divides the landholding into three. He says that now land holding is decreasing and that is the big problem for agriculture and the area (Interview notes, Raj, 6/18/2013)

This interaction, contextualized with the history of the hissedar, is illustrative of the havoc that colonial policy still plays in the region. Through introducing potato as the region’s first major cash crop along with radically altering the system of land tenure ship, these historical policies have made a lasting impact on both the landscape of the region and the social relations that dictate how agricultural decisions are made. Whereas before it was based on a cooperative, communal model, today it is the source of competition, fraternal conflict, and frequent familial litigation over land rights.

What is crucial is that while the colonial legacy continues to impact nearly every cranny of people’s everyday lives, it has largely been normalized within the region. Thus, a discourse circulates the area where potatoes are seen to be akin to the old crops of madua and daale, and landholdings have only decreased in size in the last 100 years because of the irresponsible procreation of hill families, not because of changes in the ways land was administered. Furthermore, while the region never historically was capable of sustaining a population year round leading to annual migration, people never discuss this fact and talk of their lack of agricultural self-sufficiency as timeless problem, not a political manifestation. The
normalization and enfolding of these practices into the common memory is an uncanny example of the ways that power conceals itself across space and time in this area of the hills.

If the change in village structure and land tenure ship arrangements is still felt today with a certain dulled perceptivity, the developments that occurred in the post-colonial period have a stinging presence on the memories of many farmers. Post-independence rural development was given renewed priority, and in 1954 an Indo-American team recommended constructing a rural university following the land-grant pattern of US. Following this decision ‘a contract between the Government of India, the Technical Cooperation Mission and some land-grant universities of USA was signed to promote agricultural education in the country’ (GBPUAT, n.d.). Thus Govind Ballabh Pant University of Agriculture & Technology the first agricultural university in the country was born. The influence of this university, which was routinely staffed by agricultural scientists from the University of Illinois, among others is neatly illustrated in the fact that Norman Bourlaug himself remarked that ‘Pantnagar was the harbinger of Green Revolution of India’ (Pawar 2008:1). Thus, with heavy U.S. influence, Pantanagar and its myriad research teams and agricultural extension officers began to serve as a conduit for the agricultural technologies of Green Revolution notoriety, namely, improved seeds, fertilizers, and pesticides. This process was dominated by the introduction of fruit trees and, in my research site, the cabbage.

Alok, a colorful character working in the horticultural area extension office gave us the most authoritative and detailed account of gobhi’s emergence in the region.

He says it began about 20 years ago and it started with a research unit in Pantnagar University in 1984. First there was lots of resistance to gobhi and 80-90 percent rejected. He says that he thinks this was partially because people did not know about pesticides, so in monsoon season when a disease would come people did not know what to do except put ash on the leaves [the traditional practice].

But, he continues, that in this area there is BSc graduate from Pantnagar University named Mr. Singh in Bhatalia. He cultivated gobhi in a big area and he knew about the pesticides because he was a BSc from Pantnagar University.
At this point in the interview Alok, loquacious to the extreme, stops and says that this is his 'individual thought'. We assure him that this is perfectly fine and he handily continues. He said that Mr. Singh cultivated on a large scale and for the market. We ask him to further explain how Mr. Singh came to know about gobhi and Deepak explains that in those days the government developed program where they selected 5-10 farmers to do demo plots of gobhi. The horticultural department got 2000 plants and the pesticide materials and told them to select the farmers for the demo fields and this is how gobhi started. Mr. Singh was one of these demo farmers but elected to grow more and sell to the market despite the risk of trying a new crop (Alok, 7/9/2013).

All the farmers that I spoke with generally tell a similar story of how they decided to take up gobhi cultivation—they saw a neighbor do so and make good money selling it in Haldwani so they followed suit. For some people, this story has taken a mythic proportion, such as Gulabi’s recollection. Gulabi was one of Sanvi’s neighbors and a friend so the interview had the familiar feel of village gossip. From my interview notes with Sanvi:

Sanvi asks why she decided to first grow the gobhi and Gulabi says that first there is some old man who lives in Bana. Sanvi interjects giggling and says with a whisper and says that everyone knows this man and he is mean and hard to get along with. Gulabi laughs and continues, this man in Bana first cultivated gobhi and sells it and he was getting a good price and so after that then they started. She says the first year of growing gobhi was very, very good and then the second year it was less and then the third year it was less than ok, and now the quantity is like nothing and they are not getting good prices. So now both quantity and quality are less (Interview notes, Gulabi, 7/3/2013).

The experiment that begun with Mr. Singh has brought mixed results to the region with, on one hand, the increase of cash incomes, and on the other land degradation. Regarding the latter, gobhi is pointed to as the prime offender, with many farmers noting that cash crops such as pea, tomato, bean, and potato were less harmful to their lands. Similarly, the fruit trees that have sprung up in nearly every landholding have little deleterious impact on the soils and require little water. However, crucially, while these crops do not directly degrade the soils in which they are cultivated, they do have a much larger indirect (and more ambiguous) effect on the region’s overall ecology.
The cultivation of fruit trees, potatoes, peas, and cabbages have largely taken over the land previously reserved for growing staple grains, namely, corn, millets, barley and wheat. Cultivation of these grains has been cordoned off to small plots or, in some instances, abandoned altogether. While the grain they yield is important, the true purpose of these crops is to serve as a source of animal fodder in a region that is historically fodder scarce. As we recall from chapter two, fodder scarcity was one of the primary reasons that hill people made their annual migration with cattle in toe.

This decrease in fodder availability due to the emergence of horticultural crops that have no bio-organic waste has created manifold problems for the region’s food security. For one, fodder collection (always a woman’s job, see Gurarani 2002 for excellent account) has led to historical and contemporary deforestation, leading to soil erosion and unprecedented hydrological shifts. It has also increased women’s already high work burdens as they have to walk longer distances, carrying back heavier loads.

Second, due to scarcity of fodder people now have the tendency to keep fewer animals. This fact was commented on by many with a different horticultural officer noting that human food security has increased but animal food security has decreased and thus people no longer keep as many as animals as they did previously (Pravan, 6/22/2013). This delineation between animal and human food security is completely fallacious for several reasons, foremost being that all families main source of protein is from the milk of their animals.

Furthermore, the cow manure (‘gobar’ in Hindi) is perhaps the most valuable asset farmers have to ensure soil fertility and good crop productivity. Farmers frequently stated that they bought N-P-K or diammonium phosphate (DAP) fertilizers from the market because of an overall scarcity of gobar. For farmers who insist to keep their animals despite lack of fodder, they are now reliant on purchasing the biomatter left over from the plains (known as bhusa) from their banias in Haldwani, increasing their already high input costs. Lastly, the highly
damaging fertilizer urea is frequently used on fodder crops such as gehun and makka in order to maximize the fodder from the little land they cultivate with biomass bearing crops.

While the ecological ramifications of horticultural development and other land use changes have been well documented, this is not the only impact these new production practices have left on the people of the region. I argue that this is a radically new stressor that is being placed on the (agro-ecological) bodies historically tasked with providing the sustenance to fuel inter-connected laboring (human) bodies in the Kumaon hills. As Braun (2006: 647) observes, the ‘uncooperativeness’ of commodities is an increasingly important theme, as the physical qualities of objects are shown to influence the forms of economic and political rationality that can be applied to them, and the social and political relations in which they get entangled

Thus, while gobhis, aloos, and fruit trees were once ecologically and economically viable additions to Kumaon’s agro-ecology, due to the extended use of chemicals and the increasingly unpredictable hydrological cycles, they are now struggling to survive. Since nutrition security is a socio-natural assemblage, the crops themselves are better imagined as dynamic bodies imbued with shifting qualities and with enormous potentialities to cause effect. Put another way, the socio-nature of the human body has been intimately embroiled within these assemblages. I argue this based on my finding that along with changing production and consumption practices there has been concomitant transformation in the way people perceive their bodily wellbeing and their ability to labor. Thus, the shifting agro-ecology that begun with the arrival of British palettes and profit motives has yielded a vastly new environment and new practices of production and consumption that impact people—and their health—differentially.

5 It is, however, noteworthy that the association of poor health with economic development dates back to when colonial administrators first encouraged such development. Evidence of such attitudes is found in the popular Kumaon folk poem ‘Bhabar Ko Geet’ where the refrain cries that ‘it is better to live in the hills than to settle down in the Bhabar which is full of fever and illness’ (Pande 1999: 48). Pande asserts that the Bhabar ‘represented a
Concomitant to these shifts in production have been implicit shifts in consumption as villagers are forced to eat more food from the market and the government, as opposed to home production. In this section, I examine how these new forms of production and consumption have led to new negatively articulated perceptions of health. This is evidenced in villager narratives that discuss the use of chemicals, the increasing reliance on outside food, and the change in dietary habits as possible reasons for poorer health in the present day. This change has led to increased reliance on outside sources of health-care, which compounds villager anxiety surrounding health. Following Foucault, I argue that shifting perceptions of health are both material and ideological resistances to the Indian project of capitalist development. I take Ramamurthy's concept of perplexity to better explore the excess of subject that exists at the site of conflicting ideologies of consumption.

4.3 New types of consumption, shifting perceptions of health

Throughout most of my interviews, I heard the curious declaration that people’s health used to be better. Indeed, many people in the area believe that the health of their parents and grandparents was superior to their own. Women and men alike typically cracked smiles as they recalled the capacity of their parents for working. Further, many people still had mothers or mothers-in-law they worked alongside in the field. In one interview with a village ASHA named Asmiti who knew Sanvi quite well, the force with which the notion that ‘old people are healthier’ exposed itself. Asmiti, for example, relates that her mother-in-law is much stronger than she. I say when she says stronger what does she mean, which launches her into a very new form of agricultural activity’ that demanded ‘individual enterprise...regarded as adventurous and risky’. However, there was also a ‘folk memory’ of the fevers, health problems, and intensive labor requirements associated with living in the plains that meant ‘large sections of the peasantry...perceived the Bhabar as a place of opportunity as well as a place to be dreaded’ (49) Contemporarily, these fearful hopes and aspirations and their manifestation as health outcomes and perceptions have come to take on new proportions and intensities through the extension of similar types of agricultural development.
gestural monologue on the differences between her and her elders’ working capacities. She says,

If I am doing only light work then I will feel tired, but before I do hard work my hands and feet start shivering [because it is very heavy]. If my mother-in-law is doing something she does not get tired soon. And in comparison to me and my mother-in-law, my mother-in-law’s mother-in-law will do everything and she will never get tired Sanvi interjects and tries to explain further, discussing with ASHA, who says that if they are doing hard work and she comes in for the night she is so tired, like badly tired but that her mother-in-law has more capacity than she does, so she will be ok and her mother-in-law’s mother-in-law is strongest and she will be like ‘normal’. Sanvi is laughing as she says this and says that it is true that the eldest mother-in-law is like an iron woman (Interview notes, Asmiti, 7/6/2013).

While Asmiti’s reverence to her mother-in-law is not atypical, she sees this as a direct result of changing consumption practices.

Asmiti continues that it is like this because the food we are eating now is different because people use khad and sprays and so many chemicals whereas her mother-in-law and mother-in-law’s mother-in-law used natural foods. Now whatever we are having is grown in the field where we are using chemicals and chemical khad. Sanvi asks who tells her this? Ama [Grandma]? She laughs and says that she does not think of this on her own but she went to an ASHA health training and they talked about it there, and her mother-in-law and other old people used to say this (Interview notes, Asmiti, 7/6/2013).

To be sure, the habit of romanticizing the health of one’s parents or the food from when one was a child is not a cultural practice unique to this region. What is interesting is the fact that the ‘new’ products of modernity and all their ill effects on health have come largely in only the last twenty years. There is less routinization and sedimentation then one might find in areas that were formally subsumed generations prior⁶. The compressed temporality of these changes is apparent in the way that traditional and modern methods of production, consumption, and healthcare intermingle in ever shifting permutations (See also Del Casino 2004). This

⁶ Jason Read (2006) offers an interesting paradox in the tensions felt between real and formal subsumption. Here formal subsumption is defined as capitalist modes of production overtaking non-capitalist practices, whereas real subsumption is the production of new desiring subjects. While Read alludes that formal subsumption chronologically antedates real subsumption, I find that these processes are happening simultaneously in the hills of Kumaon, perhaps exacerbating the tensions engendered by processes of subjection. There is at once resistance and also acceptance; a yearning for more that accompanies a romantic view of the past
compression of space and time in unprecedented ways means that the ideas surrounding health and well-being have become increasingly obscured. These new manifestations of health problems are often closely related to the subjectivity fractures that happen as development progresses.

One particularly active and motivated ASHA named Priyanka echoed this notion that increased use of *khad* (chemical fertilizers) and *diway* (pesticides) were certainly harbingers of poor health. She says (Deepak’s translation)

When the women come to us we make them understand that the earlier time is different and today’s time is different. We are saying ‘do not do the things people did before because at that time people are not using the *diway* and *khad* in their crops. Before people did not use *khad*, they didn’t use *diway*, but now they use. It is very big difference between past and present. In past person is not feeling so much sick (*beemar*) but in present people are feeling *beemar* and disease…. before more people ate more grain and more *subzi* from home and didn’t use the chemicals. In old times the *kamjori* (weakness) was much less but in old times, peoples are living ‘*chalte firte*’ (frank or carefree); our old people are more ‘change’ (active, fit) than us. In the old time there was no disease and people's health is good, so that is why it was not necessary [to take different medicines and IFA tablets during pregnancy]. (Priyanka, 6/22/2013)

Priyanka then goes on to describe a quite unique chronological narrative of how health care has transformed in conjunction with food and agriculture practices.

Deepak: So now we need medicine because of the *diway*?
Priyanka: In the old time people used *jheribooti* [herbs/traditional medicine] because there was very less illness.
D: If before people are using the *jheribooti* for good health then what do people need now.
P: We need to stop using the spray and chemicals and also maintain the hygiene and people should use *gharki khad* (cow manure/organic fertilizer).
D: So before people used *jheribooti* as medicine?
P: Yes, but in the past there is no *beemar* (disease) so people were not getting *beemar* and if they did they used *jheribooti*. But nowadays, there is more disease and more health problem.
D: So now is *jheribooti* effective?
P: Nobody is using the *jheribooti* and if someone is using it then it is not working.
D: So what will work?
P: [loudly exclaims] *diway*, *diway*, hospital.
D: Allopathic? [biomedicine]
P: There is the homeopathic treatment available in the hospital but people are not going for this, they are going for the allopathic treatment because that is what is effective. (Priyanka, 6/22/2013)
On her account, she sees the emergence of allopathic medicine (biomedicine) not as a sign of progress and modernity, but rather as a direct response to the problems engendered by pesticide and fertilizer use. Her narrative illustrates that certain knowledge realms such as the technical and science based biomedicine are legitimated as the only available option for today’s much different health quandaries. The introduction of new variables into their everyday lives, such as exposure to fertilizer and pesticides engenders a sense of powerlessness among the villagers, as they think their traditional knowledge is ill-suited to handle these more severe times. In other words, due to influxes of new practices surrounding agriculture and consumption, villagers are wrested of their personal and experiential knowledge about their very bodies themselves. Thus the knowledges associated with social reproduction—the very ways that people interact with their own bodies has been called into question by new discourses that promote a scientization of both agriculture and health.

In his study of genetically modified cotton production in South India, Stone (2006) articulates how rapid changes in agricultural practices renders farmers deskilled where they simply cannot keep abreast with the market-driven rapidity churning out new seed varieties and chemical inputs. Whereas farmers have relied on experiential and second hand knowledge as guides in agricultural practices the influx of new seeds and chemicals every year serve to overwhelm a trial-and-error approach and encourage greater dependence on outsides agricultural expertise. The notion of deskilling is highly applicable to the problems of health as well.

Viewing food as a vector of intercorporeality makes apparent how land and ecological degradation become an embodied phenomenon through food consumption. In other words changing production practices have manifested themselves within the crops and when they are consumed people believe it adversely impacts their health. While chemical pesticides have been identified as an occupational hazard of modern farming in India (Aktar et al 2009), the
way *khad* and *diway* were discussed by these women focused on an idea of consumption rather than exposure. Moreover, just as new types of agriculture and horticulture development have produced new sets of problems (pest outbreaks, soil infertility), which are only remedied through new technical solutions, a parallel discourse surrounding health has more recently come to circulate the region. Here again, the influx of outside knowledges about scientific agriculture are consumed and embodied and manifest themselves in the new health concerns that require further outside intervention.

Therefore, at the same time as farmers are deskilled of knowledges surrounding their livelihoods, the influx of biomedical interventions works to deskill villagers of their practical knowledge of their bodies. The increased confusion and uncertainty over what foods are ‘*paushtik*’ (nutritious) and what engender poor health is especially evident in foods that are procured from outside the home. These bodies of knowledge are thus also instrumental actors within assemblages of food and nutrition security.

### 4.3.1 Increased reliance on market food

While new modes of production have engendered concern among farmers for the health of their land as well as their families, there is also a discourse that circulates around food obtained from the market. People routinely felt that food that came from the plains was inferior and grown using more chemical than in the hills. In almost all instances, farmers greatly preferred their home food to that from the market and most certainly from the government run subsidized grain shops. As one man so succinctly puts it, “home food is good because we clean it ourselves, and the *pahar* (hill) food is clean food and healthy because we do not put that chemical fertilizer” (Vinod, 6/29/2013). This sentiment of uncertainty and skepticism towards outside foods was frequently espoused, as in the case with Beedi.

We ask her why she thinks that market food is less good for health, and she says because the things are not pure and there is *diway*. The things from the market are grown from land with lots of chemicals and then they are getting these vegetables and it is not pure and you
know they are getting sick then they are wasting more money on treatment (Beedi, 7/11/2013).

Implicit within this notion is a deep suspicion of the ethics of the market. While people frequently discussed the amount of chemicals used in production to be higher, they were also displeased with market foods as they thought them to be adulterated, an idea consonant with other ethnographic work in South Asia (Nichter 2001). This adulteration was widely referred to using the Hindi word ‘milawat’ which might be translated as ‘mix-up’. Milawat is a far from a homogenous category, with several different types—some of which reflect a more ideological leeriness of the market and others that are very material in experience. In the case of the former, people often spoke of food from the market as being suspect due to uncertainty around its actual composition. As Pooja, a nurse and midwife suggested, food security means:

Using hari subzi (leafy greens) and using the home grains and boiled water’ Deepak continues, so for her if I am taking more food from market or home what is better for food security  She very forcefully replies: ‘gharka, gharka because market food is milawat so we are saying avoid market things, especially grinded foods [such as grains, daals, spices]

I ask her if she can elaborate on what she means by ‘milawat’ and she says:

There is color mix-up where say suppose in red chili they are mixing the red color and not the chili. In pulses there is different milawat and, in these they are putting diway to protect pulses and grains for long time from bugs and disease, but diway is not good for people's health’ (Pooja, ANM, 6/22/2013).

At another household there is a boy with his grandmother. The boy is whimpering because he has a bad toothache but he keeps eating mangos that his uncle brought him from Haldwani. The grandmother keeps scolding him so we ask if he likes other foods like the new foods from the dukaan, she concedes that he likes all of them biscuits, toffee, and salty snacks. I ask if they think biscuits are paushtik (nutritious) and she nonchalantly says that biscuits are not good for health but children are demanding and that is why they are giving. Deepak asks why do they not they think it is good? She says “I mean when there is packaging there is no surety about when they were made and what types of materials they are really using” (Purnima, 6/29/2013)
In the hills, transactions have largely been based on trust developed over a long period. Therefore, the increasingly depersonalized forms of commerce renders some people in the population wary, and perhaps lead to changing perceptions of bodies and health. This is largely a rapid extension of socio-spatial flows of information that has been facilitated by the development in the region. Whereas village life is undergirded by a dense web of social relations and knowledge flows that are historically rooted, people increasingly have to deal with outsiders and people with which they know little about. While people’s perceptions about these new types of food may influence the ways in which they choose to produce and consume this food, research over the last decade has shown that these beliefs surrounding food likely also impact the very biophysicality of the way the food is metabolized.

Indeed research at the intersections of neurological sciences and endocrine system that governs metabolism has been recently shown to be more complex than previously thought (Murphy et al. 2006). Researchers in health psychology have thus sought to better understand how beliefs and perceptions about food come to bear on the biophysical mechanisms involved in metabolizing food (Crum et al. 2011). Scientists have singled out the hormone ghlerin, among others, as an important gut-produced peptide that governs senses of satiety. This means that people who believe certain things about different foods (such as its nutrient composition, calorie count, or its purity) have statistically significant difference in hormone production upon eating, thus fundamentally shifting the biophysical ways that bodies process food. These clinical trials are increasingly providing evidence to undergird what social scientists have long known, perceptions matter. They matter not just in determining the behavior of people in their food consumption choices but they impact the very molecules that are responsible for the biophysical metabolism of the food. While this research has made headway in understanding the intricacies and nuances of the intersections of neurology and endocrinology
scientists admit that more research is needed to understand how “psychological factors influence the biological impact of food” (Crum et al 2011: 5).

4.3.2 Government Food: The Public Distribution System

The distrust of market foods and the perceptions that it negatively affects one’s health is felt even more intensely in regard to the government subsidized food to which most villagers are entitled. The Public Distribution System (PDS) is notorious for supplying bad quality grain, yet, nearly everyone has become dependent on procuring the bulk of their grains here.

Hanumanji says he gets chawal, gehun, and chini (sugar) from the control shop and takes 1 cutta of each 4 times in a year. He says he pays Rs 375 per cutta. We ask quality and he says ‘halka’ (less) and that it is not too good, only good for filling the stomach. (Interview notes, Hanumanji, 6/13/2013)

However, Hanumanji casts PDS grain in a positive light compared to lesser functioning PDS shops. Particularly the people we spoke with in the Scheduled Caste village complained that some months the grain was ok but sometimes the quality was only good enough to feed it to their livestock. As one man, Sunny, declared sometimes it was not even this good:

Sunny says that he takes from PDS and he says he takes 23 kg of chawal (rice) and 10 kg of gehun (wheat) every month. We ask about the quality of the food and he says it is ‘cubi theek and cubi carob’ (sometimes ok, sometimes very bad). I ask what he does when it is carob and he says that sometimes he feeds it to the animals but then sometimes they do not even want to eat it so then he throws it away. I am surprised and he says when this happens it is smelling badly and P says the word is ‘sarawhoora’ and it means that the grain has moisture in it. Sunny continues that this month is very bad too. I ask if he has any in the house or if it is gone and he says he has it. He goes inside for a minute or two then comes out with a cutta sack about ¼ full which he then opens up to show us. Deepak is wrinkling his nose as he grabs a handful of wheat and lets it sift through his fingers. It is full of stones and other objects and it has a moldy smell (Interview notes, Sunny, 6/5/2013)
The cheap provision of grains acted more as income subsidy than food supplementation program. That is, household reliance on certain amounts of cheap rice and wheat freed up portions of their household budgets for other expenses, such as horticultural production costs and education. Therefore, the overall effect of this program for food security is highly debatable. While it is laudable that the shops function fairly smoothly in that villagers are typically able to access their rations, the more subtle violence of providing the rural masses with grain they sometimes cannot even feed their animals is deeply problematic. Yet, the impact that the provision of cheap low quality grains has had on the psyches of the villagers is difficult to untangle.

For one, the PDS has been complicit in homogenizing Indian palettes towards the refined grains of rice and wheat, and away from local coarse grains such as millet, corn, and barley (Banerjee 2011). While it is noted that the political economic implications are highly inequitable, with large farmers from the plains states benefitting at the expense of smallholder producers who cannot compete with the glut of cheap grains (Banerjee 2011). However, the provision of cheap rice and wheat also has the effect of forging a pan-Indian identity and enfolding culturally distinct populations, such as in Kumaon, into the Indian national project. However, this shift in tastes and desires is complex and fraught with resistances. This is evidenced by the generational divide in attitudes toward refined versus coarse grains, as well
as the sentiment that new consumption patterns are productive of weaker bodies more amenable to disease.

While a government food program, the PDS might also be seen as complicit in processes of vertical integration that has simultaneously homogenized Indian diets while also diversifying it through easier access to foods atypical to the local traditional diet (Pingali 2007, Popkin 2012). This dual, multi-scaled process of homogenization and diversification is typically referred to as the “nutrition transition”, and is typified by increases in consumption of vegetable oils, sweeteners, and animal products and decreased consumption of coarse grains, legumes, and vegetables (Popkin 1992). While much has been written about this phenomenon, analyses largely look at aggregate national, regional, and global data with very little work looking at how dietary change manifests itself in everyday life (Hawkes 2006, Popkin 2012). The few scholars who have documented the way “nutrition transitions” occur at the site of the community or even the individual suggest that the process is much more complex than the literature suggests, with widely diverging impacts dependent on gender, age, and class (Finnis 2007; Dodd 2011). Particularly resonant is Finnis (2007) and her study of changing production and consumption regimes in South Indian hill community. Similar to her results, I find that there is a sharp divide within communities and even people themselves over the arrival of these new foods.

4.3.3 Changing tastes

While new foods from the market such as biscuits, toffees, and Maggi instant noodles were often viewed as suspect and many were unclear what the health implications of such products were, there was also a large chorus of people who attributed the dismissal of old foods as having definite consequence for present day. Sanvi and I had spent had the opportunity to
go to a vaccination camp at the anganwadi center (AWC) where we sat and talked with Asmiti, Radha, the AWC teacher, a primary school teacher, and several AWC helpers.

Dominating this discussion however, was the older woman named Paraswati who was the ANM (auxiliary nurse midwife) and another government midwife named Geeta. Immediately within the conversation Paraswati authoritatively pronounced that women’s status had greatly improved since she began her work 26 years ago. As the conversation evolved however, all the ill effects of development began to emerge. The women proceeded to heatedly analyze and debate what the causes were behind increases in health problems and decreases in labor capacity:

Paraswati says that 26 years ago women always ate food last and if there was not enough there was not enough. But that this food was paushtik (nutritious) because they were eating madua ki roti (millet flatbread) and makka ki roti (corn flatbread). Geeta jumps in and says that in the past life people eat madua and makka because they do not have enough money to buy gehun (wheat) and things from the market, so they were healthy and strong. Geeta is impassioned and continues with her voice raising that now people are getting everything from the market which is why they are sick and they are having so many health problems. The primary school teacher (Kamla) who is much younger and sitting to the side is fidgeting and trying to say something, finally authoritatively asserting that people used to have ‘pure’ foods like pure milk but now they are eating unpure things from the market and that is why people are facing so many health problems (Interview notes, Paraswati, 7/6/2013).

There was a sentiment that the youth are not ‘habituated’ to these older, healthier ways of living and that used to dominate. This generational divide was most evident surrounding the crop, madua, or finger millet, which is viewed as an inferior grain for the poor person, despite being nutritionally superior to both wheat and rice (Singh and Raghuvanshi 2012).

I ask if she ever advises people to eat madua and makka and she says hahn, hahn (yes, yes) but she says people do not like to eat it. The primary school teacher yells out that now it has become tasteless. Paraswati says that nowadays people do not eat madua they just feed their animals and sell it, and Geeta adds that in these times people are very modern and are embarrassed to eat madua because it is a cheap food. Paraswati continues that nowadays everyone wants Maggi and chow mein. I ask them if they think that Maggi is a paushtik food and they all scowl and say nay, nay and the primary school teacher says it is junk food. Paraswati and Geeta concur that madua, joh (barley), gehun, makka, and dalia (cracked wheat) are the paushtik foods.
Sometimes parents reported proudly that their children liked madua, but more frequently than not they conceded that they wouldn’t touch the ‘black roti’ (madua roti are darker in color than wheat roti).

She says but her son does not like madua ki roti at all though he likes makka ki roti. she says when my son was a kid he used to say he didn’t want to eat madua ki roti bc he would turn dark but now he eats and everyone starts to laugh and she says that it is a saying that if you eat madua ki roti you will become more darker and her son will say that if he eats madua ki roti he will become very dark and he will not eat (Interview notes, Uma, 7/4/2013).

This might be indicative of aspirations to mimic the idealized fair-skinned Indian citizen. Indeed, the racialization of madua as a dark grain for poor people was uncanny in resembling the similar stereotypes that dark-skinned Indians typically face. These ideas and notions are largely perpetuated by the increased access to the pale and refined grains wheat and rice that are available from the PDS and the market. Indeed, madua is scarcely available at all unless villagers grow it themselves or purchase it from neighbors. Further, denigrating madua’s position in the cereal hierarchy is the localized nature of it and the fact that people cannot access it except in Kumaon and other millet eating regions.

Thus, increased mobility, always a gendered phenomenon in the hills, has played a large role in determining whether new tastes had developed or whether they maintained the habits of the hills. An older woman named Kavitya commented that “her eldest son likes madua less but she thinks it is because for 4-5 years he worked in Maharashtra and didn’t eat so much. But now that he is back in Kumaon slowly, slowly he will start to like again” (Kavitya, 6/15/2013).

The shift away from consuming the nutritious foods grown at home is largely seen to be as a result of the development of the region. Beedi observes

The old generation used to eat more home foods like madua, makka, and gehun ki roti and they haven’t ate any market food. They take everything from home. But this generation takes most of the food from the market and the old generation used to drink lots of milk and now people are keen to make money so they get new species of cow and sell milk and keep less milk at home which they use only for chai or kids (Beedi, 7/10/2013).
Thus state-led shifts in production have engendered a complex web of effects in the hills of Kumaon. While the ecological damage of chemical intensive agriculture is well documented, I have argued that equally troublesome is the change in consumption practices that render villagers less able to access the foods they see as nutritious.

4.4 An Organizational Response

Given the manifold negative effects of horticultural production, there has been a strong organizational response from the state and NGOs in the area. Here they largely seek to remedy these second order problems through technical solutions, and offer various subsidization schemes, technical support, and marketing opportunities that incentivize farmers to continue to produce horticultural products for the market. The most prominent of these is the promotion of organic production techniques. While there is certainly farmer interest in reversing the two decades of soil degradation, decreased yields, diminishing health, and the always increasing input costs-- only a few have begun the process.

Many farmers express that they are caught in a catch 22 of sorts where a reduction in fertilizer means a reduction in yield and income. A crucial point is that going organic currently has no remunerative benefit for farmers, as there is no operable certification scheme that verifies organic production. Furthermore there are no market linkages where farmers could sell this produce if they ever could become certified. Thus farmers’ interest in organic production is predicated on reversing the many misfortunes that have happened over the last twenty years, and is seen as an investment in the future productivity of the land, rather than an income generating opportunity. Indeed ‘going organic’ entails a substantial initial loss in income.

For many poor farmers who are stuck in cycles of debt-- taking out money for aloo seed, household rations, and fertilizer only to return loans at the time of harvest-- this is not something they are able to undertake. Furthermore, for a second strata of farmers who have
become accustomed to the new lifestyles and consumptive habits of the past twenty years, this is not a loss they are willing to take. Thus in spite of the negative effects of chemical use and the ostensible long-term benefit of organic production, only a very few wealthier farmers have made significant strides towards reducing chemical inputs.

I sat with Deepak’s uncle, Raj, who also served as a host family for me. Raj was one of the only farmers in the region who had been able to go totally organic. Hearing him recount the process is testament to the great undertaking of going organic. He says that it was 12 years ago that he realized his land was carob and this was because of chemical fertilizers. So he says “slowly, slowly” he reduced the amount of chemical fertilizer and increased the amount of gobar (cow manure), and then finally after 10 years, he was able to completely abandon the fertilizers for two years now. As for pesticides he uses a form of non-pesticide management (NPM) which typically involved mixing cow urine and some other ingredient such as neem oil (Azadirachta indica), a common forest product in the region.

However the audacity of having one type of agricultural development thrust on them as a remedy to the short-sighted policies of the 1980s was not lost on Raj. While normally mild-mannered, he exhibited a healthy dose of moral outrage at the progression of government policy as he recounted an experience at an agricultural fair in Almora some years back where he had a particularly heated conversation with some scientists. From my fieldnotes:

Raj: I told to the scientists ‘whatever you are telling to us, the farmers will have more knowledge than whatever you are saying.’ So [the scientist] says that ‘the plant is contaminated, or land is contaminated with pesticides, pesticides’.

But I told him ‘we are doing farming from our childhood and in those times, soil is highly fertile (matyal) but because of fertiliser and pesticides soil has become much less fertile (dormat). And our average fertility soil (dormat) has become barren (banjur). In these times the average land (dormat) we are not using khad or pesticides and it gives good production but now we have to put khad and pesticides on that land so how you can tell us what to do! When you find the variety of the peach that gives two times peach or two times apricot, then I will tell you that you are a real horticultural scientist! Bigaard (fool) you are not improving the situation!’

Me: Then what did the scientists say to you?
R: He said do organic! I tell him before twenty years our lands are organic but because of you and because of the Indian government green revolution scheme our land is carob. In the green revolution you give our fathers the fertilisers, and they put on land and they get good production but you give those materials free of cost. But slowlyslowly (dhire, dhire) you are charging more and more and now it is 1000 rupees, so it is very difficult to purchase this. So I told [the scientist] ‘you distribute the fertiliser and due to that the land situation is like this and now you are telling us to improve!’ So then I tell [the scientist] ‘you will now tell the way? This is because of the government and because of science and now you are telling to improve!’ So then he [the scientist] said ‘start organic in small level.’ That he told. (Interview notes, Raj, 6/18/2013)

Thus while the effort by the NGO and the state to promote sustainable and organic farming techniques is laudable, the practicality of such interventions is deeply questionable. We interviewed a notoriously idealistic fieldworker from one NGO about his diagnosis of the agricultural situation. This is what he had to say:

Galosh answers that the NGO is talking to farmers about about NPM [non-pesticide management] and giving organic fertiliser to help the farmers. He says they are giving seeds, sometimes hybrid, and sometimes traditional for pea, cauliflower, beans, tomato, capsicum. However he personally thinks that people are growing less gobhi in the last few years and cultivating more of the makka, madua, and bean.

We ask if he can give examples of some villages where this is actually happening and he replies that he, himself, began this type of cultivation three years ago. He says that before he sowed 8 packets of gobhi seeds and sold 200 cutta of gobhi to Haldwani and brought 9 cutta of atta (wheat flour) to the home. Now he says they are cultivating only 25-30 cutta of gobhi and buying 4 cutta atta from Haldwani. Also, now they cultivate 4 cutta makka and mix with gehun for the year.

I ask, so does the money even out? He replies very quickly nay, it is not possible to buy 4 cutta and not sell 200 cutta gobhi without taking a monetary loss, but the more important thing is the land is improving [as Deepak is translating this he says bilkul, bilkul (absolutely, absolutely)] (Galosh, 6/19/2013)

While Galosh, an NGO worker who is in charge of organic promotion may be optimistic about the promises of organic production, he is most certainly in the minority. While I asked most people about the interest in organic they were confused and said that in this area farmers are interested to use more NPK and diammonium phosphate (DAP), not less. As villagers have become enwrapped in the modern consumptive lifestyle, taking loans from their bania’s every
year to support such a way of life they have become reluctant to participate in organic production solutions.

4.5 Pasiwali Soch: Incomplete processes of subject formation

At the heart of degraded agro-ecology and they diminished perceptions of health is the fomenting of new desires, aspirations and tastes of Kumaon villagers that has been engendered by the increased mobility of youth as well as the vertical integration with markets and government agencies. It is encapsulated by the figure of paisiwali soch or the money minded individual. From the NGO fieldworker Reetika:

Today’s people are money minded people (paise ki soch, paisewali soch), people want less work and more money. Before people ate whatever was available at home and purchased much less from the market. In my opinion, things from before like madua, daale, the home foods—they should be in present time now too because they need less hard work, and it is home grown food, and it is healthy, there is no use of chemical. But the present thinking has been changed. (Reetika, 6/22/2013)

Increases in incomes have meant increases in youth mobility. This has brought tall tales and second hand accounts of urban consumptive practices to Kumaon, which challenge the way hill people see themselves in relation to others and even one another. It seemed to stoke a desire and strive to participate in this national transformation that is happening with such rapidity in the urban.

Time and again I witnessed the permeating determination to participate in the Indian project of capitalist modernity, even if it is selling small quantities of milk to pay for children to go to the outside for education. From my interview with the junior woman who runs the dairy cooperative:

She says that yes she thinks it is true people drink less milk now and that they are selling more because they want to increase their incomes. She said that there are some women who will come from 4 km away to sell 1/2 litre of milk. She says they do this because they want money. I ask what she thinks about that and she says that they want money and if they are selling 1/2 litre then they get Rs 300 or Rs, 400 in a month and then they can provide education fees for their kids (Interview notes, Chanu, 7/8/2013)
At the heart of this continued persistence in producing for market is an increased interest in cash and being able to purchase from the market. This creates a strange contradictory recognition that the fruits of modernity are not necessarily good but they are the way ahead for the future. Anthropologists have variously theorized this state of being within the context of India, all of which have certain resonances to the ways in which people expressed these ideas throughout my research encounters (Nichter 2002, Ramamurthy 2003, 2011). Ramamurthy (2011: 1036) is particularly instructive in her theorization of what she calls the emotional structure of perplexity or, “an affect, a sensibility through which [people] experience and reflect on their incorporation into a complex and uncertain production process.” She finds that Dalit smallholder farmers in Andhra Pradesh choose to cultivate cotton, which is viewed as an “aspirational crop” despite frequently taking economic losses on such a decision. She writes that throughout this fraught process,

Dalit smallholders experience incorporation in this contradictory capitalist world as a structure of feeling marked by perplexity, as mysterious, paradoxical, and outside their control even when they appear to have control over some of its elements and are drawn to its possibilities (ibid.: 1051-1052)

The fact that today people had become “money-minded” was similarly perplexing for many. The uncle Raj presented himself as in a bind that he could not escape. It was if the modern consumptive lifestyle had enfolded him and his family and that it had become the natural path forward, despite the consequences. I witnessed this in the field:

We think if home production is enough for the whole year then it is good for the family. But we need one lakh (100,000) rupees for a year but it will not happen from home production that is why no [we cannot go back to growing more home foods]. I ask him for what does he need one lakh rupees? He says swastaj (health), parhi (education), travel expenses and he trails off. I ask him if there are any other expenses, and he says parhi again, then clothes, animal husbandry, because we have to purchase diway and materials (food) for pasu, tonic, if there is lack of milk then we need to purchase a new animal, for plough (kareedna ox), for whole year agriculture if not enough family then we have to hire outside labour

So, I inquire, ten or fifteen years ago before they began cash crops, did they have a money problem more often?
Raj begins laughing and says there have also been an increase in expenses. Deepak says like mobile? And Raj laughs and says yes now there are mobiles. He adds that now there are the cars and the road. Before people did their work on foot and road was not available, now people are wanting the motorbikes. (Interview notes, Raj, 6/18/2013).

While Raj is accepting of the “new expenses of life”, in a somewhat begrudging manner, others embraced consumption much more readily. In interviewing the first man, Pranav, at the horticulture office I ask him how the shift from agriculture to horticulture might have affected food security.

Deepak: So food security has changed from before?

Pranav: Yes

D: Which kind of changes have come?

P: Now the kind of facilities people get in Dilli: eating good foods and wearing good clothes, this kind of lifestyle now come to village. Before people are eating only homemade things but now people are eating chow mein, momo, Maggi, samosa, and tikia in the village, but before who knows about that. Because now people have money they are getting these facilities at home. If they didn’t have money then how will they be able to do this? Before people are eating meat once a month, and now every week people are eating meat.

D: So this is good for food security? And he says yes baria hai (very good). P asks so now that people are eating more like Dilli people -- that is good? The man, a little bit exasperated, replies hahn (yes)! (Interview notes, Pranav, 6/22/2013)

My post-interview notes suggest a more complex story.

After I turn the tape recorder off he is laughing and joking and says that there is a man nearby who is doing floriculture on his land and he is eating meat from the market and drinking the wine every day. All the men laugh but the man is serious and he describes how much land he is doing this on and how large his production is and that he is making very good money. (Field notes, Pranav, 6/22/2013)

There is a deeper feeling that a new type of ethics has descended upon the hills that is based on principles of capitalism. This largely revolved around shifts from a gift to money system of exchange. Wrapped up in this shift is the notion that now people are different and that their thinking has changed permeates the hills.

She says that for as long as she remembers people want money, she says now everything is very expensive and you have to buy everything from the market. Before people are growing enough dhania (coriander) at home and if the neighbor is asking for dhania then people are definitely giving but now people have less dhania and if someone asks you for
Nobody is going to give and if someone has extra dhania they will sell it in the market and then they will get sugar or sugar candy. I ask her what does she think about that? She is laughing and says the main thing is that everything is now expensive for example education and before people were illiterate and people did not know things about education and job and career and they were very involved with agriculture and you know they got everything from home and now people are educated and they want their sons to become doctors or lawyers and this is why everything is expensive because they want to give good education to the kids. (Interview notes, Kriti, 7/27/2013)

The dream of being a doctor, engineer, or lawyer is a further part of the imaginary in aspirations to be the ideal Indian. The thought of continuing on in the field of horticulture is seen to be something of a last resort. Indeed, education was the main expense that people cited when discussing the expenses of modern living.

A second older woman named Geeta has been a major actor in the development of dairy cooperatives in the area, which themselves have engendered complex effects on FNS. The first dairy cooperative which has government affiliation but is community managed was started in 1992 by a man who had witnessed this entrepreneurial activity in Bhimtal to the south. He said he saw that people were making good money selling their milk and since there is plenty of milk in this region we could also do the same. One field-based exchange highlights some of these issues:

I say that what did people do before the dairy? She says in surprised voice they used it at home and then she begins smiling and fondly recalls, before there was plenty of milk and a family might have one cow and one buffalo and they made dahi (curd), and ghee. She said they consume as much dairy as they please. Also, because everyone has plenty of milk and there was no dairy [at which to sell the milk], then if some households did not have milk because they did not have animals or their animals were pregnant then people would ALWAYS give them milk-- like a full bucket of milk, maybe 3 whole liters of milk. Also sometimes they would give dahi. [She is talking excitedly and grinning widely]

Also this happened between villages so if someone in Bana had no milk people from Sunkiya would bring them some. She said that people are very connected to each other and giving these things free of cost. Geeta stops and dramatically says that it used to happen where if one family had animals not giving milk then they would actually have MORE milk then people who have animals that are giving milk.

When Sanvi translates this to me Geeta is enthusiastic and says hahn, hahn in a pleased affirmative. She said that at that time everyone was getting ghee, curd, milk from everyone and everyone was all connected and knew when someone had animals who were not producing milk. She said that people had very good relationships.
I ask her whether after the dairy opened did the amount of milk that people consumed in the village begin to decrease? She loudly retorts an affirmative and says that it decreased by maybe half and she is again kind of laughing, fondly reminiscing and says that people were trying to drink much less milk then and people are saying only take a little. She says noonan, noonan (a Kumaoni word meaning a tiny bit) was what everyone said after the dairy began, but before the attitude was drink as much as you can (Interview notes, Geeta, 7/8/2013).

As a leading figure in creating the dairy cooperative, Geeta has been complicit in and even encouraging of the project of development, yet thrusts of resistance remain in her which are expressed as she speaks of the past. The tensions that are produced by participating in a project that one has not fully bought into has been called many things by anthropologists, such as defective modernization or perplexity, which have been previously discussed. These conceptual renderings expose themselves when, not ten minutes later, I ask her if she thinks that the dairy has been beneficial to the villagers?

She says that she thinks it is beneficial because they get one new source of income and that now, because of the climate, people are not getting good rates for their crops. But because there is a dairy then people can sell the milk and they are buying new species of cow and buffalo which are giving more milk. I ask if many people get these new species to which she gives a conciliatory nod. I ask if the new breeds are expensive and she says that they are but they are giving more milk. She says that now when someone sells milk they will think: ‘at the end of the month I will have this amount of money from selling milk’ and they will make plans for how they will spend this money (Interview notes, Geeta, 7/8/2013).

This last point alludes to the fact that the aspirations and consumptive desires of hill people have radically changed over the past twenty years. While Ramamurthy calls the emergence of a simultaneous yearning for the past coupled with aspirational desires for modernity as perplexity, it can also be seen as an incomplete and messy project of forging new consumptive subjects. Foucault (1978: 96) writes that within the dense webs of power relations resistances are often mobile and transitory “furrowing across individuals themselves, cutting them up and remolding them, marking off irreducible regions in them, in their bodies and minds.” Thus while state-led shifts in production and consumption are trumpeted as signs of progress, the preponderance of health complaints can be seen as an intimate and embodied critique of
development policy. The interconnected ways that development has affected the region—it’s ecology and the people is multifaceted and complex, where resistances seep up and bubble to the surface, even in the most unlikely suspects.

This is evidenced by a lively discussion I had with a horticultural officer in the area. We were discussing the impacts that chemical fertilizer has had on the region. As a proponent of state-led horticultural development he starts out by singing the praises of chemical fertilizers and the progress they had brought to the region, but at the same time he gave an unsolicited diagnosis of how these practices have impacted the health of the area.

When people do not use fertilizer they also get production, but after they start fertilizers then they get more production. Say, if they gotten ten [cutta] before, now they get 20. But change has come into taste. Before 1 naali gave 5-6 quintile production after fertilizer is 10 quintile. But before taste and quality was bahut acchi (very good) but production is less….when I was a child many days we are eating only aloo, morning aloo, daytime aloo, evening aloo, and everything was ok. But now if we eat aloo 2-3 times then loose motions, and dysentery’ Deepak interjects ‘because of diway?’ and Alok snaps “certainly.” (Alok, 7/9/2013).

We spend several minutes discussing the potential for organic vegetable markets in India such as they have in the developed countries before we again turn to the changes that production have had on health.

Deepak: Since people began to use more fertilizers and more pesticides do you think that there health has changed?

Alok: Very much! Before when it was not so developed, and today it is developed and we find out about so many diseases. Before we never heard about the patri (kidney stone) but now 60-70% suffer from patri. And after that there is diabetes, before 20 25 years nobody knows about the patri. And other common disease like blood pressure, heart problem and that is all [chemicals] effect. Before 20-25 years nobody knows about sugar [diabetes]. This is all because of the khanpan (food) people are eating. In 1987 there was only one person selling chow mein in Haldwani nearby the degree college. And at that time we are seeing that food and we are frightened to eat that food! Now you will look in every hotel and people are eating the Chinese food.

P: But what about the shift from agriculture to horticulture, has that done anything?

A: Agriculture has also changed because you are using the same thing on the horticulture crop as the agriculture crop. People are not taking agriculture crop in traditional methods and they are also using chemicals. Before people are doing the crop cycle: if this year they grow gehun (wheat) next year they grow gobhi (cabbage) but this time we see that year after year people plant the potato and now you are seeing many diseases in potato, so that
thing is also happening. Crop rotation is very important but it is not happening properly. In the plains area, farmers have more land and they are doing crop rotation but in the hill area there is less land so that is why farmers do not maintain crop cycles (Interview, Alok, 7/9/2013).

At this point in the interview the man has drawn an audience of fieldworkers and he is clearly enjoying the opportunity to deliver a diatribe on the huge changes that have come to bear on the region. However in a singular moment his eyes shift and it is clear that he has become aware that he is in fact waging a trenchant critique on the very processes begun and sustained by his employer (the horticultural office provides monetary and material support to all farmers including seeds, fertilizers, pesticides, and special government schemes). He proceeds to cover his tracks and takes a conceptual turn in his monologue, he continues:

But before people are not having the addictions and now people are having more addictions. So I can’t say surely [health problems] are because of horticulture or agriculture because before less people were having addictions. Now, you see smoking! Before limited people were smoking and 5 years ago boys were not smoking at all-- but now the boys are also smoking. There is much more wine use. There is much more fast food use. So how can we say it is horticulture and agriculture?

Because before people were not so much in touch with outside life, and people regarded their parents but now people have exposure to outside life. Before when we went to Haldwani it took three days. On the first day we would wash and bathe, the second day we would go, and on the third day we were returning. Now, morning time we go and evening time we return! Before there were not so many roads, motorbikes, or convenience. [Alok pretends to light an imaginary cigarette and takes a few leisurely drags of it] Now people are lighting one cigarette and reaching Haldwani before it is over! (Alok, 7/9/2013)

Finally, he confronts Deepak, and intones “you are saying the health problems are because of the horticulture. But for the farmers they cannot get cash from agriculture crop they can get cash only by horticulture crop”. We agree and ask him our final question: overall does he think that horticultural development is good in Nainital district? He says:

*Bahut accha, bahut accha* (very, very good)!! Because horticulture developed, the life standard has changed, and if the horticulture did not develop you would not see things such as the road”. (Interview notes, Alok, 7/9/2013)

His reference to the road as a sign of progress minutes after his animated soliloquy on how ease of access to Haldwani has engendered the moral and physical corruption of hill life provides a striking example of the cognitive dissonance that arises as people become thrust into
the projects of development. If Foucault argues that processes of subjection are always partial and never complete, then Alok’s speech is illustrative of the internal struggle that different discourses have inscribed on him. For one, he is enamored with the idea of getting to Haldwani by the end of a cigarette, while at the same time he decries the fact that know he cannot safely consume too many potatoes for fear of digestive upset. However as there is no organization that works on alternative methods of development, Alok has little recourse to imagine something differently.

Despite people’s belief their health has declined and now necessitates more advanced care, people argue that now “life is expensive”\(^7\) and people are ‘paisiwal soch’\(^8\) (money-minded), thus it as inevitable to continue on in the development project that has engendered decreased health. This development project and its relations of power is undergirded by socio-spatial processes of increased market integration, youth mobility, and other informational networks, which have had a transformative effect on villagers’ tastes, desires, and aspirations. Evidence of the always partial processes of subject formation is found in narratives where villagers simultaneously extol and decry the development that has enfolded the region. Further, NGO and state programs that respond to the negative ramifications of horticultural production through organic promotion are met half-heartedly by farmers. As “life is now expensive” they feel they cannot take the immediate decrease in production and income that would result. While the situation might appear dismal, I conclude that this is fecund territory for further action research that seeks to imagine develop differently.

\(^7\) Raj, 6/18/2013
\(^8\) Reetika, 6/22/2013
4.6 Conclusion

In conclusion let me summarize the thrust of my empirical and theoretical arguments. While gendered labor burdens help to explain why on some days people reported eating less food, the state-led shifts in consumption patterns mean that increasingly the food that people do eat is perceived to be less healthy. This in turn places further stress on the systems of gendered labor that are responsible for social reproduction tasks. Analytically focusing on the bodies responsible for social reproduction and the recursive relationship they have with one another enables policy to more holistically understand phenomenon of persistent malnutrition.

While gendered bodies are stressed to capacity in fulfilling social reproductive obligations, this is exacerbated by new practices of consumption where people are now increasingly eating foods they perceive as less nutritious and oftentimes contaminated. Taking a more-than-human reading of social reproduction, I looked to food as a “vector of intercorporeality” to argue that the bodies of food traditionally depended upon for social reproduction are increasingly struggling to thrive or even survive in the Kumaon hills and are furthermore viewed a definite suspicion, resulting in diminished perceptions of health and capacities to labor.

Furthermore, just as gendered labor burdens that threaten practices of SRP have developed into cultural indexes of what it means to be a pahari woman, new practices of consumption are laden with notions of what it means to be a modern Indian. Here we see new spaces of subject formation that have opened up around practices of consumption. I draw on theories of subject formation and argue that the stoking of new desires and knowledges both engenders and entrenches new ways of being. Yet Foucault argues processes of subject formation are always transitory and incomplete, thus while diminished perceptions of health
are material they are also ideologically resistant to the new systems of consumption that have enfolded the hills.
Chapter 5: Conclusion

By way of conclusion I would like to restate my findings and then argue that the potentialities and excesses across this rural Indian field site would make fecund territory for new experiments in participatory research, taking inspiration from the Gibson-Graham (2006a, 2006b) community economies and Nagar (2002) collective analysis methods of scholarship.

In chapter 3 I find that the greatest threat to food security is through a lack of labor time. The concept of social reproduction and the work of feminist thinkers such as Silvia Federici help us to unravel the contemporary manifestations of power concealed through a common sense idea that “women in the hills work more.” I argue that this trope is a very political (and somewhat recent) construct from colonial era policy that both explicitly and unintentionally sought to tether women to the household while encouraging male migration and absenteeism. In the contemporary day these constructions of labor time are taken up with insidious vigor by Indian NGO and a government which seeks to engage women within the very spatialities that originally marginalized them.

I find that this has consequence for food security in mundane and unsuspecting ways. Denaturalizing these historical burdens through taking history seriously and not accepting its teleological essentializations might be a key tool in future research that seeks “to reveal cracks in what appears to be the perfect hegemony of… structural power and domination...[and to] foster sources of hope and inspiration for how to re-imagine the world otherwise” (McKinnon et al 2008: 274).

Furthermore, critical to this questioning is a deeper understanding and analytical recognition of the way that people perceive not just their health but their bodily and mental well-being. In chapter 4 I find that despite improved economic opportunities and greater
incomes, people believe that their health has often faltered. This perception is intimately bound up with the shifting agricultural production and food consumption practices that are both part and parcel of rising incomes, increased market integration, and higher rates of mobility.

I discuss the phenomenon of diminished health in the wake of development through a post-human reading of social reproduction. Previously, this concept has been discussed in terms of labored gender burdens, however, I argue there are many bodies—human and non-human—that allow us to live our lives as well as allow the workforce to be reproduced both generationally and on a day to day basis. Thus I view agro-ecological bodies which are then transformed into food bodies as integral actors in the assemblages of FNS operating in Kumaon. Much more than inert objects, these crop plants and food products are imbricated with the power to cause affect, which is evidenced as people discuss them in terms of not just economic potential and cultural memory but in very bodily and sensorial ways. Thus just as certain policy and programs may inadvertently stress gendered bodies’ ability to perform social reproductive functions, new movements within agricultural development policy similarly stresses the agro-ecological bodies which historically labored as the primary source of sustenance for livestock, land, and humans alike.

Despite the fact that current production patterns have wrought havoc on farmers’ lands and consumption is seen as the font of diminishing health, people remain committed to the project of economic development. Drawing on Ramamurthy’s concept of perplexity I find that the socio-spatial practices of development –especially increased market integration and youth mobility, and access to new sources of knowledge – have engendered a complex and fraught process of subjectivity formation as hill peasants are transformed into modern Indian consumers and producers. I follow Foucault to argue that the process of forging subjectivities is what that is always already interpolated by “points and knots” of resistances. I see the vocal complaints surrounding health as furrows of such resistance; as excesses that have yet to be
subsumed by the discourse of development. The sensorial and affective quality of these resistances signals what Katharine Gibson has identified as a site of subjectivity rupture. Specifically, using the theorizations of William Connolly, she argues that “the visceral register might contribute "fugitive currents of energy [that] possibly exceed the fund of identities and difference through which [the individual subject] is organized (quoting Connolly: 143). Gibson continues that it is these very energies that might serve as the foundation of a "productive politics of becoming" (Gibson: 642)

Further disrupting the teleological narrative that is all too often the bedfellow of development, Gibson continues to draw on Connolly, observing that fugitive energies have the potentiality to "release subjects from 'present judgments that sanctify the universality or naturalness of what [they] already are' thus allowing them to participate in new and surprising movements" (642) As such, I assert that this project is fecund territory for further research that takes seriously these perceptions and bodily sensations and uses them as a means with which to forge political alliances around a different kind of development.

In addition to the community economies literature, this thesis has already made valuable contributions to the underpopulated subfield of feminist political ecology (FPE) and health geography. While Mansfield (2008; 2011) and Sultana (2012) make headway in developing space to think about what a conversation between these two fields might look like, there has been very little empirical work to follow. Moreover, FPE has recently been reenergized with a wave of new, innovative scholarship that has used feminist concepts such as intersectionality to examine how the gendered ways of being were intimately bound up with different spaces of nature (Elmhirst 2011; Nightengale 2011; Hovorka 2012). I build on ideas put forth in this work and engage with a central political ecology concept of access to argue that access to food is predicated on gendered notions of what it means to be a “hill woman”. In building on this work alongside that of feminist health geographers (Parr 2002, Craddock 2001, Dyck and Moss
1999) this thesis brings a feminist methodology centered on multiple, situated knowledges and a privileging of embodied and everyday experience to bear on new types of empirics around the political ecology of food production and consumption—with its implication for nutrition.

However, this project and analysis leave many important questions unanswered and is demanding of further research. Foremost is one of method. I am increasingly interested in drawing further insights into processes of subject formation that happen within development processes. I have been hindered by my lack of linguistic knowledge as well as the short time frame of the research encounter. Understanding the multifaceted meanings behind both women’s performative embodiment of the discursive narrative “hill women work more” as well as villagers’ widespread complaints about new types of food consumption will only begin to materialize after a longer term stay in the field and improved knowledge of Hindi. Furthermore there have been many scholars pushing the methodological boundary in understanding subject formation through such techniques as the walking interview (Anderson 2004; Evans & Jones 2011), critical auto-ethnographic mapping (Hager & Mazali 2013), and video methodologies (Simpson 2011). Nagar and the Sangtin Writing Collective (2002) methods of critical journaling and collective analysis allows for interesting insights into the multiple and shifting subjectivities of rural women, the question of practicality and access is ever present. In pushing this research ahead there is much promise in developing a mixed method approach that allows me to understand embodiment in a deeper way and thinking through the “visceral realm” as a way to build alliances around progressive politics (Hayes-Conroy & Hayes Conroy 2011).

Secondly is my entanglement with the realm of posthuman research. As I move ahead with these projects I am interested in collaborating more closely at the intersections of agricultural sciences (soil, plant, climate) and nutritional research that studies endocrinology and metabolic pathways. Understanding the variable behaviors and inherent tendencies of
certain molecular and cellular objects might be one way into understanding the materiality of such health encounters as well as the radical dynamism of imagining new systems of consumption. Thus understanding the ways in which the socio-natural world and the shifting identities of villagers are co-constituted is a methodological challenge that future research might look to explore.
Glossary of Hindi/Kuamoni Terms

**Acchha/Acchhi** - Good

**Aloo** – Potato

**Bania** - Caste name; moneylender and middleman for Haldwani market

**Carob** – Very bad; spoiled

**Cutta** - Burlap sack used to transport vegetables to market *aloo cutta* is roughly 50kg whereas *gobhi cutta* is 20kg

**Dhire** - Slowly

**Diway** – ‘Chemical’ it is the word used to talk about both chemical fertilizers, food preservatives, as well as allopathic medicines

**Gehun** - Wheat

**Gobar** - Cow manure

**Gobhi** – Cabbage

**Kamjor** – Generalized weakness but can also refer strictly to body size and mean very thin

**Khad** - Fertilizer (*ghar ki khad* is *gobar* where market *ki khad* is N-P-K, diammonium phosphate, or urea)

**Khana (Khanpan)** – Food

**Madua** – Finger millet

**Makka** - Corn

**Matar** - Pea

**Milawat** - Mix-up, contamination from chemicals or lesser quality food

**Parhi** – Education

**Paushtik** – Nutritious (a more educated person word, and one that denotes some scientific aspect otherwise colloquially villagers talk about healthy food as ‘accha khana’)

**Subzi** - Vegetable

**Swastaj** - Health
Theek – OK, average
Appendix A: Household Interview Guide

Semi-Structured Interview Questions for Community Members

1. How many people are in your household? (Men and Women)
   a. What are education levels of each person?
   b. What are the main duties (i.e. agriculture, wage labor, student, household works) of each person?

2. Do you own land? How much?
   Is it irrigated or unirrigated?

Food and Nutrition Questions

3. Can you tell me everything you have had to eat in the last one day?

<table>
<thead>
<tr>
<th>Food</th>
<th>Source: market/home/PDS</th>
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4. Is this a good day for food? What is a good day of food? When do you eat like that?

5. What about a bad day of food? When does that happen? What are the things that make days good or bad?

6. Do you have special foods for religious festival, marriage, etc?
   a. Where do you get these?

7. Do you have special foods for women who are pregnant or breastfeeding? Do pregnant/breastfeeding women eat any differently?
   a. What is reason to eat these foods? Where are they from?

8. What about special foods for babies? Children?

9. What kind of foods are most tasty?

10. Do you feel you sometimes have to eat food you do not like just because it is the only food available at that time?
    a. Give me some detail? When does this usually happen

11. What kind of foods do you think give good strength for a hard day of work?
12. What kind of foods do you like to feed your children? What about for yourself?

13. Can you think of a baby/child in the village that has good health? What about one that has not good health? How can you tell, what are differences?

14. What kinds of foods are most healthy (paushtik) for children?
   a. How often do you eat these foods at home?
   b. Do the children eat this happily?

15. Do you grow or eat millets? How often do you eat them?
   a. Do you like them?
   b. Why?
   c. Has the frequency of eating millets changed in your home? From the time of your parents or grandparents?

   a. What do you get from there?
   b. Where else do you get food from? Forest? Other?
   c. Where is the best place to get food from? Market? Govt? Home?

17. What is your main source of food (PDS? Market? Home?)
   a. What do you get from there?
   b. Do you get food from anywhere else? (e.g. forest?)
   c. Where do you think is the best place to get food from?

18. Where do you get drinking water?
   a. Are there any problems with the quality of water?

**Government Programs**

19. Are you able to access government food support schemes
   a. PDS
      i. What should you get per person?
      ii. What do you get?
      iii. What is the quality is the food?
   b. ICDS
      i. What should you get per person?
ii. What do you get?

iii. What is the quality is the food?

c. The mid-day meal program for schoolchildren?

i. What should you get per person?

ii. What do you get?

iii. What is the quality is the food?

20. Does the government offer schemes/support to improve your agriculture production? Which?


**NGOs**

22. Do you participate in any agriculture/food related programs run by NGOs? Which programs?

23. Has the food availability increased because of interaction with the NGO? How?

24. Has the food quality increased because of interaction with the NGO? How?

Ask for any other comments or questions?
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