

**A Compilation of My Experiences: Viewing the Same Sky While
Learning, Researching, and Living in the Land of India**



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Table of Contents	PG
Acknowledgements	3
Background	4
The Youth Institute and Internship	4
Arriving in India	5
Interning at ICRISAT.	6
Presentation of Research	7
Abstract	7
1. Introduction	7
1.1 Objectives	7
1.2 Hypotheses	8
1.3 Limitations of the Study	8
1.4 Methodology	8
2. Kinkheda Profile Summary	8
2.1 History	8
2.2 Present-day	9
2.3 Demographics	10
2.4 Income Sources	10
2.5 Case Studies	11
3. Institutional Adaptation	11
3.1 Types of Institutions	11
3.2 Institutions in Kinkheda	12
3.3 Local governance structure	12
4. Results and Discussion	13
4.1 Role of Formal Institutions	13
4.2 Factors Constraining Success	15
4.3 Suggestions for Improvement	19
5. Key Findings and Conclusion	21
5.1 Key Findings	21
5.2 Recommendations	21
5.3 Future Implications	21
5.4 Guidelines for Administering Grant	21
5.5 Conclusion	22
Concluding Remarks.	22
References	24

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Background

I was born and raised in the Midwestern U.S., with lush green surroundings and a beautiful skyline spanning as far as the eye can see. My parents, Ron and Val, raised my four siblings and I in the small farming community of Bankston, IA. Farming, quality food production, and working against global hunger have always been issues central to my being. My father was raised on a farm and continued this practice with my mother for about thirteen years of his adult life. Before the date of my birth in June of 1992, they moved off the dairy farm onto an acreage just a few miles away.

Throughout my childhood, I recall begging them to become farmers once again, not realizing that we had never really stopped. The only change was, we had moved from a dairy cow enterprise to a diversified farming homestead. Some of my fondest childhood memories include the hours spent bottle-feeding the baby goats, imitating the walk of our chickens, or stroking the fluffy rabbits. This connection to the lifestyle of farming remains an integral part of who I am and has shaped my view of the world.

Growing up in Iowa, surrounded by forests, farms, and fields, food was something I came to expect. Of course we would have sufficient food to eat, I mean, after all, food was literally all around us. If we wanted more of a certain crop, the simplest solution was simply to increase the number of seeds which were sown. The food chain, for me, never began in the grocery store with a shiny plastic label, but far earlier than that. The food chain commenced in the planting of a small seed, grew by the grace of many rainy days, and blossomed with the assistance of the sun's nourishing rays. I must admit, my favorite part of the chain always came right at the end: plucking the fresh strawberries off of the plant, raspberries off the vine, or uprooting the juicy carrots for a delightful snack.

My young and innocent delight regarding the bounty of our summer harvests began to be met with a conflicting emotion as I grew and matured. The emotion which stirred within me was one of deep concern for those possessing an altogether different relationship with food. Learning of the masses of people living in poverty worldwide left me grappling with the existence of such a paradox on this earth. Coming from the lush pastures and woodlands of Iowa, with every need of mine fulfilled, I was left feeling ashamed and unworthy of the earth's goodness to my family. My parents instilled in us children the virtues of simplicity, frugality, and charity throughout our maturation. In atonement for the blessings of adequate food and water I received, I began to adopt a lifestyle in line with my parents' teachings.

I found that the only way in which I could reconcile all the wealth our Iowa homestead provided us with was to reach out to those whom were not so fortunate. My parents modeled their teaching to my siblings and I by being involved in the foster care program, through which we opened our home to children with domestic hardships. I enjoyed sharing the joys of rural Iowa with my many foster siblings over the years, and delighted in teaching others a little of what the farm had taught me. As I continued to mature, I felt compelled to do more, and I became involved in aiding the poor and hungry through various church and community organizations. I have been involved with local homeless shelters, youth groups, and outreach programs, both near and far. Through these various outreach activities, I have been able to accept all that I have been given – not with shame – but instead, with gratitude.

The tie I felt to the issue of farming and food production as a child has remained, and the respect I hold for the farming lifestyle has only continued to grow. I began to take interest in tracing the length of my own food chain and learning of the ways to give back to the earth, which has given so much to me. The issue of sustainable and diversified farming was one I became familiar with through my upbringing. I now advocate for local farmers by frequenting food co-ops and area farmers' markets to support the longevity of an agricultural lifestyle in the United States.

The Youth Institute and Internship

Upon being selected by a panel of teachers to represent my school at the World Food Prize Global Youth Institute, I was both intimidated and honored. I knew writing a 3,500 word research paper on the topic of world hunger would require some time adjustments in my schedule, but I also knew this opportunity was one I was not willing to pass up. I faithfully pledged to take on the task, as I spent the time home from service trips during my junior year summer researching issues of food insecurity. I honed my many areas of interest into focusing on the social and political instability which threatens food

security in the African country of Uganda. Through my paper, titled, "Government Transformations will Yield Greater Food Security in Uganda," I addressed the topics of diplomacy, violence prevention, and establishment of a rule of law to protect the most marginalized and vulnerable members of society.

The research I conducted paid off as I was able to truly sink my teeth into the WFP conference and all that it had to offer after my months of preparation. Listening to the honorable speakers and diplomats, including: Jeffrey Sachs, Bill Gates, and secretaries of agriculture from around the world, was an awe-inspiring experience. The conference opened my eyes to the fact that global hunger was not just something I cared deeply about and worked against through charitable deeds. Rather, global hunger was a pivotal issue people on every continent devoted their entire lives to fighting.

As Saturday approached and the time for the youth institute presentations drew near, my excitement grew. Upon learning of the news I would be placed in the small group with Dr. Ejeta, the 2009 Laureate of the Prize, I could hardly contain my excitement. I enjoyed working with my group, along with the experts who joined us, as we discussed issues of world hunger and developed an appropriate response. Zoe Anderson, a fellow Borlaug-Ruan intern, and I were then able to share our group's findings with the auditorium at Pioneer. Following the presentations, it was time to attend the information sessions on the experiences of the previous Borlaug-Ruan interns. Learning of the incredible experiences had by the 2009 interns inspired me to seek out this incredible opportunity. I pledged to do all I could to show the World Food Prize my passion and determination to work against the dire statistics regarding world hunger.

Prior to attending the conference and institute, I was interested in working in the field of international human rights advocacy in the future. The institute gave me a new perspective and left me with the burning question: "If one does not receive their most basic right to food and water, what other right is worth fighting for?" Enlightened, I left the conference, inspired to work for one of the most important human rights of all – the right for all people to receive adequate food and nutrition. I was determined to join the global fight seeking liberation for the poor from the shackles of hunger and poverty.

I realized that if I truly wanted to join the global fight against hunger, I first needed to understand the poverty and hunger that existed in other nations. I began to devote much time to the topic of world hunger, as I researched and studied the devastating effects of this prevailing injustice. The prospects of a Borlaug-Ruan internship provided me with the hope of not only studying, but perhaps really seeing and impacting the poor in other nations. I worked diligently on my application for the internship and continued with anti-hunger advocacy while awaiting my results. Inspired by the Hunger Banquet at the conference, I led an Oxfam America Hunger Banquet with my school and community to raise money for the Haiti earthquake relief fund. Through this initiative, we succeeded in collecting \$2,000 for the victims, and even more important was the awareness raised about the humanitarian crisis in Haiti and the abomination of global hunger.

Before long, I learned I was a Borlaug-Ruan finalist, and following an interview in Des Moines, accepted for a 2010 internship placement. I was placed at the International Crops Research Institute for the Semi-arid Tropics (ICRISAT) in Patancheru, India. The rest of my senior year flew by as I successfully completed my high school academic pursuits, received the necessary passport and visa for India, and prepared for what was sure to be the trip of all trips. What had once seemed like a distant fantasy – obtaining a Borlaug-Ruan Internship – had become a reality, and I could not wait to experience the upcoming summer in India.

Arriving in India

The trip to India was a story in itself, as I experienced a few bumps in the road which only succeeded in making my international travel more of an experience. Spending the night in a Dubai hotel was an unexpected, yet enjoyable side trip, which eased me into the phenomenon of jet lag. At last, after months of preparation, weeks of packing, and days of traveling, I arrived at my final destination. A few missing baggage reports later and I was ready to embrace the glorious early morning in Hyderabad, India. The tunnel of enthusiastic Indian taxi drivers would have been quick to overwhelm my sleep-deprived

body, had I not spotted the ICRISAT placard held by a driver from the Institute. A sigh of relief passed through my body as I plodded out to the vehicle accompanied by the kind man who would whisk me away to my summer home. After a quick car door mix-up, I found the passenger's seat and settled in for my first ride on Indian soil.

Some weary travelers may have viewed the ride to the institute as an opportunity to rest, with the philosophy that a little sleep is better than no sleep; however, I took an alternative approach. This approach included a windows-down, picture-snapping, Indian-air-in-my-hair ride to ICRISAT as I attempted to absorb my new surroundings. One of the most vivid emotions I experienced on my ride to ICRISAT was disbelief and confusion as we passed rural Indian homesteads. I recall thinking, "Do they live here? Are these really their homes? People's actual homes?" At that precise point I came to realize that poverty is not solely a concept to be debated in educated circles, but a real, living, breathing, deplorable way of existence.

I experienced shame as I reflected on the many research papers I had written about India's poverty during the previous semester through an Iowa State University course on world food issues. I had been diagnosing India's problems from afar, with little credibility other than the consultation of scholarly sources. Who was I, a young Westerner, to determine what the nation of India needed to do in order to move its poorest out of poverty? I could scarcely process the poverty flashing before my bulging eyes as the car whizzed by. I finally was here – in India – determined to gain a deeper understanding of the daily trials and triumphs experienced by those toiling in the fields and paddies of southern Asia. I was prepared to study the obstacles to food security and identify potential solutions for the hard-working agrarian communities. Most importantly, I was going to obtain this information straight from the source – the farmers themselves.

Interning at ICRISAT

I lost no time in beginning work at ICRISAT as I read through hundreds of pages of research publications and scholarly articles to familiarize myself with the work completed by the institute. By the second day in my mad dash to make for lost time in Dubai, I was drafting plausible titles for a summer research study. Over the next couple of weeks, I continued to learn more about the center where I would spend my summer. I learned both from the ICRISAT website (www.icrisat.org), and my interactions there, that ICRISAT conducts agricultural research for the semi-arid tropics of Asia and Africa with a pro-poor approach. The semi-arid tropics covers 6.5 million square kilometers in 55 countries, and is home to over 2 billion people.

ICRISAT holds their mission to be: to help empower 600 million people to overcome hunger, poverty, and a degraded environment in the dry tropics through agricultural improvements. ICRISAT is divided into four Global Research Themes: Agro-ecosystem Development, Crop Improvement and Management, Harnessing Biotechnology for the Poor, and Institutions, Markets, and Policy Impacts (IMPI) – the area of my internship placement. My research on ICRISAT began long before my arrival in India; however, being there and engaging with the people gave me a deeper understanding of the human beings behind the website. I was overwhelmed by the kindness of my workmates and the welcoming arms they – and India – embraced me with.

The Global Theme IMPI works to promote policies for increased food security, livelihood resilience, poverty reduction, and a sustainable environment for the dry tropics. One of IMPI's areas of focus is the climate change project, titled, "Vulnerability to Climate Change: Adaption Strategies and Layers of Resilience." The overall objective of this project is to identify sectors most at risk to climate change and develop gender-equitable adaption and mitigation approaches for the most vulnerable areas.

From the internship's beginning, I was most interested in developing a project focusing on social and institutional variables involved in the equation of climate change adaptation. I wanted to learn what types of institutional schemes were operating in the village to provide assistance to the farmers, and whom in the village benefitted from the institutions. I was also interested in the factors affecting a household's access to institutional benefits. I was able to integrate these many areas of interest into my

research project studying the effectiveness of the formal institutions in regards to climate change adaptation. The village chosen for my study was Kinkheda, located in western Maharashtra, India. I had the opportunity to travel and work in the village from July 15-19, facilitating focus group discussions and individual interviews with farmers. The following is the documentation of my village level studies, data analyses and syntheses, and post-visit discussion, results, and conclusions.

Presentation of Research

Abstract

Climate change is a reality that is adversely affecting poor farmers, particularly those in the arid and semi-arid tropics. A wide range of institutions exist to facilitate climate change adaptation in village-level settings, but the implementation of these institutions is often lacking. The study investigated the effectiveness of the various formal institutions in addressing adaptation to climate variability and change. Analyzing the processes of the formal institutions and examining their impact on the farmers' adaption strategies helped determine the schemes' effectiveness. This qualitative case study analyzed the impact of the formal institutions on the farmers' ability to adapt to climate change in Kinkheda village, Maharashtra, India. Focus group discussions, along with interviews with farmers and other key informants in the village were utilized to assess the formal institutions present in Kinkheda. Through the study, the formal institutions were observed to determine how they work to protect the farmers from the ecological and socioeconomic effects of climate variability and change. The study has demonstrated that transparency must be increased within existing institutions in order for farmers to receive the much-needed institutional benefits.

1. Introduction

Climate change is no longer an intangible theory to be discussed in international forums; instead, its effects are being experienced worldwide through global warming and erratic weather events. The agricultural sector experiences great difficulty in adapting to the manifestations of climate change, including: floods, soil degradation, droughts, high temperatures, and erratic patterns of precipitation (ADB 2000). The effects of global warming, illustrated by the current global temperatures averaging 0.7 degrees Celsius above pre-industrial levels, are projected to have a severe effect on farmers worldwide, particularly in Asia (Moorhead 2009). Some areas of Asia are expected to experience temperature increases up to double the global average, making current farming practices obsolete and ineffective (Kleiner 1994).

The semi-arid tropics (SAT) will suffer the brunt of climate change in Asia, where both the farming practices and the farmers are most vulnerable to variability in the climate. Asia's SAT accounts for 90% of food production, and is home to many of the world's poorest (Cooper, et. al 2006). The SAT of India alone houses over 250 million rural people who work to secure an agricultural livelihood (Walker, Ryan 1990). Climate change poses a large threat to these rural inhabitants, who need reliable climatic conditions to secure their primary food and income sources.

India is a nation highly dependent on rain-fed agriculture, particularly in the SAT regions. The Development of Humane Action noted that in India, 68% of the total net crop area depends on rainfall. Of food crops, 48% are rain fed, while 68% of non-food crops rely on rainwater for survival (DHAN 2002). In the state of Maharashtra, located in western India, patterns of water scarcity over the past two decades have left the farmers struggling to adapt to a series of climatic shocks. Farmers in the SAT of Maharashtra lack the knowledge and resources to successfully adapt to climate change alone, and need support from formal institutions. However, many inefficiencies in the institutional sector leave farmers vulnerable to multiple threats, including the following: climate hazards, resource scarcity, civil strife, market fluctuations, changing resource rights, and government policy failures (Osman, et. al 2006).

1.1 Objectives

The main objective of the study was to determine the effectiveness of the formal institutions for facilitating climate change adaptation in a village-level setting. The three main questions the research study attempted to answer were as follows:

- What is the impact of formal institutions on the farmers' ability to adapt to climate change?
- What are the factors constraining the success of the already initiated formal methods of adaptation for the farmers, if any?
- How can governance of formal institutions, like Panchatayi Raj, be made more effective in helping farmers cope with climatic shocks?

1.2 Hypotheses

Three hypotheses were set for this study, correlating to the study's focal questions:

1. Formal institutions play an important role in adapting to climatic shocks in Kinkheda Village.
2. The extent to which one benefits from the existing formal institutions correlates to his or her social status.
3. Increasing the role of the farmers in policy-making decisions would have a positive impact on the operating schemes.

1.3 Limitations of the Study

Due to time and resource restraints, the study was constrained solely to the Kinkheda village. If time had allowed, a deeper analysis of at least two villages would have been conducted and the number of respondents per village (sample size) increased. Ideally, the village selections would include one village with more effective formal institutions operating and one with less functional institutions facilitating adaptation to climate change. In observing differences between the institutional operations, one could easily identify leakages in the system of the weaker village. In addition, villages from two different states, such as Andhra Pradesh and Maharashtra, would have been chosen for investigation with more time. With this selection, the state government processes would be able to be compared as an important formal institution. However, due to time limitations, a single village was chosen for the study. The results of this pilot study should be built upon by carrying out the study in more villages, with increased sample sizes, to verify the validity of the study and increase the breadth of results received.

1.4 Methodology

The study required a thorough examination of the Kinkheda village in July 2010, entailing interactions with farming households through focus group discussions and individual interviews. Case studies were completed on five farming households, chosen using the purposive sampling method. The sampling was done with regard to farm size/ownership and sex. The different groupings of farmers were large, medium, and small-scale farmers, including landless laborers and women.

The focus group discussions, comprised of about fifteen to twenty members each, served a dual purpose in the collection of research. They increased the significance of the study by providing an opportunity for the voices of more farmers to be included in the study, and allowed for a triangulation process to verify the responses received in individual case studies. Four focus group meetings were held: one with members of the Gram Panchayat (village-level body of the Panchayati Raj institution), one with the large and medium farmers, one with the small farmers and landless laborers, and one with women. Institutional mapping was carried out in the focus groups, which illustrates the most important institutions to each grouping. Carrying out the qualitative, semi-structured interviews in Kinkheda enabled a better understanding of the effectiveness of institutional schemes. In addition, secondary resources and ICRISAT village-level studies (VLS) data from 2001-2004 were referenced and utilized in the study.

2. Kinkheda Profile Summary

2.1 History

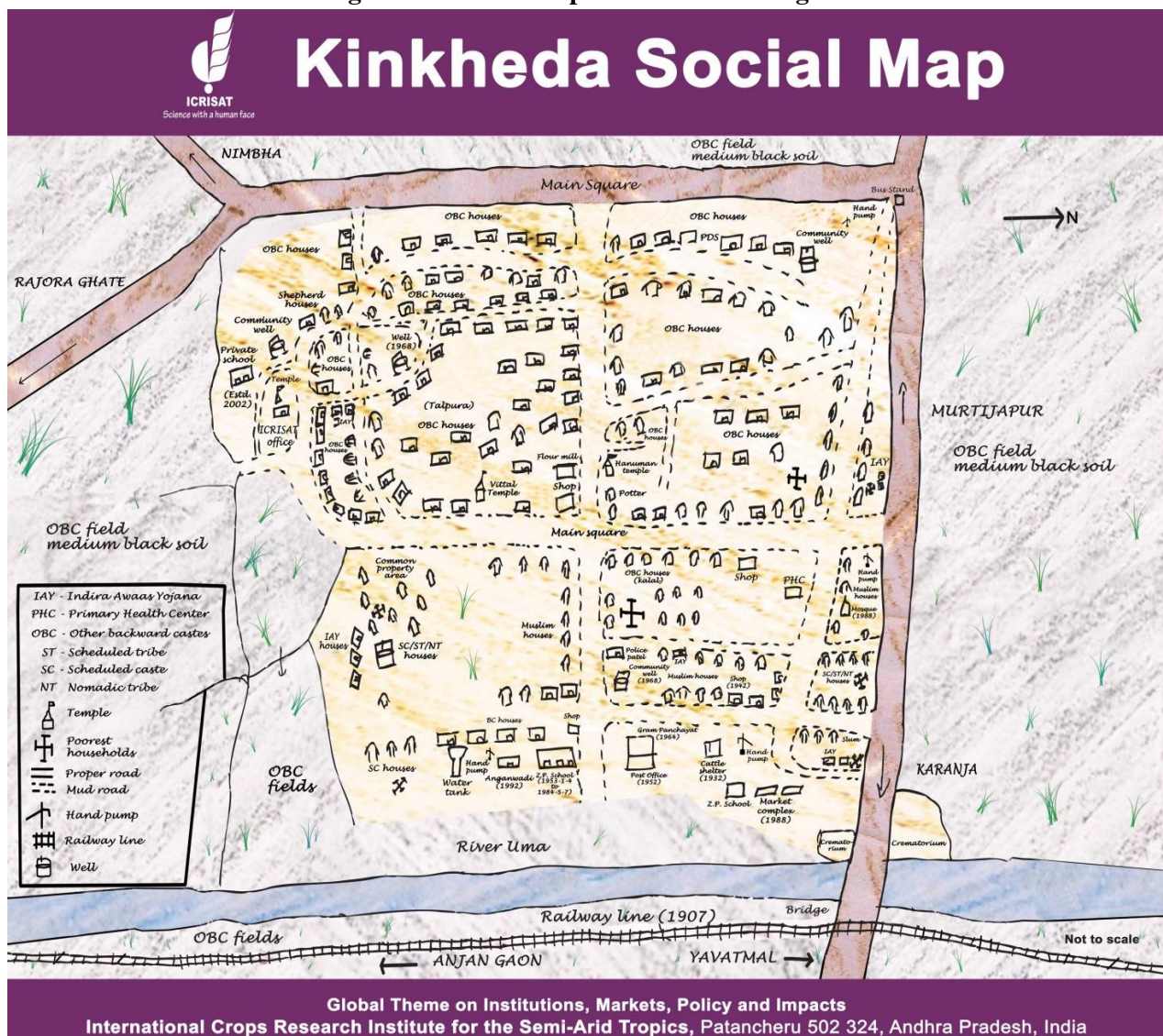
The Kinkheda village is a part of the Akola district, which is located in the Central East of Maharashtra State. The district of Akola was ruled by the Nizam of Hyderabad in the eighteenth century. The present-day Akola district was part of the Berar region in the Nizam's kingdom. In 1853, the district was forfeited to the British as a loan payment and then administered as a part of the Central Provinces (Walker, Ryan 1990). The Akola district was intensively cultivated and most famous for growing cotton.

The building of a rail transport in the district increased the cotton area by 50%, which boosted the state revenue by 42% from 1867 to 1881 (Chopde VK, Kiresur VR, Bantilan MCS Draft 2009).

2.2 Present-day

Today, Kinkheda is classified as a part of the Vidharba region of India's SAT. The village is part of the typically rainfall-assured Akola district, without irrigation measures in place. Average rainfall in the district is 750 to 1000 mm. The three categories of soils in the district are: Medium black (72.29%), Fertile black (10.62%), and poor soil (16.99) (Chopde VK, Kiresur VR, Bantilan MCS Draft 2009). The farmland in the Akola district has a majority of medium deep black clay soils (Inceptisols), which have a moderate water-retention capacity (Walker, Ryan 1990). Medium black soils are prone to erosion, but have excellent chemical properties which can produce high yields with proper farming methods (Maertens 2009). About 189 households are present in this agricultural village, many of which have been harvesting soybeans as their dominant crop in recent years¹.

Figure 1: A social map of Kinkheda Village.



Source: Gandhi (2008).

¹ Information obtained from conversation with Mr. Chopde, Senior Scientific Officer GT-IMPI, ICRISAT.

2.3 Demographics

Income poverty, defined as an annual income of less than 20,000 Rs., defines the lives of under 40% of Kinkheda villagers, making the poverty level in Kinkheda just below average of the six VLS villages.

Table 1: Estimates of income poverty across VLS villages, 2001.

Village	Number of sample households	Number of poor	Percentage
Kinkheda	32	12	38
Total with all 6 VLS villages	446	183	41

Source: Rao, Charyulu. 2007.

The literacy rate in Kinkheda illustrates the high level of education offered in this Maharashtra village. In addition, gender inequality in education has been nearly eliminated in the village. The literacy rate for young women is nearly 15% higher than the average across all VLS villages.

Table 2: Family size and literacy levels of sample households in VLS villages, 2001-04.

Village	Total family members	Average family size	Percentage of Literates	Literacy rate of young men*	Literacy rate of young women*
Kinkheda	146	4.70	88.15	90.25	87.63
Total with all 6 VLS Villages	379	5.38	66.41	82.35	73.36

*From the ages of 5-30 years.

Source: Rao, Charyulu. 2007.

The nutritional status of the villages in Maharashtra has increased with the production of pulses (legumes), thereby lowering the percentage of protein malnutrition for the village of Kinkheda.

Table 3: Nutritional status of sample households, 2001-04.

Sample Population	Consumption per day		Malnutrition level (% of households)	
	Calories	Protein (g)	<2000 calories per day	<50 g protein per day
Kinkheda	2006	52	47	44
Average across 6 villages	2135	49	47	53

Source: Rao, Charyulu 2007.

2.4 Income Sources

Agriculture serves as the primary occupation for nearly 70% of households in Kinkheda, which is significantly higher than the average of all VLS villages, while the percentage of caste occupations in Kinkheda is lower than that of the other combined VLS villages.

Table 4: Distribution of sample households by occupation, 2001-04.

Primary Occupation	Kinkheda	Total of all 6 VLS villages
Agriculture	22 (67.7)	242 (54.2)
Labor	8 (24.0)	97 (21.7)
Business	0 (0.0)	13 (3.0)
Service	2 (5.2)	16 (3.6)
Caste occupation	1 (3.1)	51 (11.5)
Others	0 (0.0)	27 (6.1)
Total of all 6 VLS Villages	32 (100.0)	446 (100.0)

*Figures in parentheses represent percentages to the column total.

Source: Rao, Charyulu. 2007.

All classes of households in Kinkheda recorded positive incomes from crops, with nonfarm sources still providing more income than crops. The majority of income earned by labor households, however, was derived from agricultural work. The significance of agriculture to a household's income increased proportionately from laborers to large farmers, while the significance of labor decreased.

Table 5: Sources of household income (Rs. per year) in Kinkheda, 2001-04.

Class of Households	Labor	Small	Medium	Large	Average
Crops	19	5464	19727	24324	9134
Livestock	288	490	5889	2574	1712
Labor	17648	9464	3494	1606	9408
Nonfarm work	2038	262	0	0	624
Caste job	0	1286	0	0	562
Migration	1167	762	0	2000	875
Others	5309	5496	16438	34376	11111
Total	26469	23224	45548	64880	33426

Source: Rao, Charyulu. 2007

2.5 Case Studies

Table 6: Sampled households in qualitative study.

Farmer Names*	Sabal Kolkhede	Lakshmi Chiche	Baha Udeen Tale	Baanke Bihaari Ravt	Dakshina Bahirkar
Status	Large farmer	Medium farmer	Small farmer	Landless laborer	Women-headed house
VLS No.	208	80	30	01	59
*Names have been changed to protect the villagers' identities and maintain confidentiality of the study.					

3. Institutional Adaptation

3.1 Types of Institutions

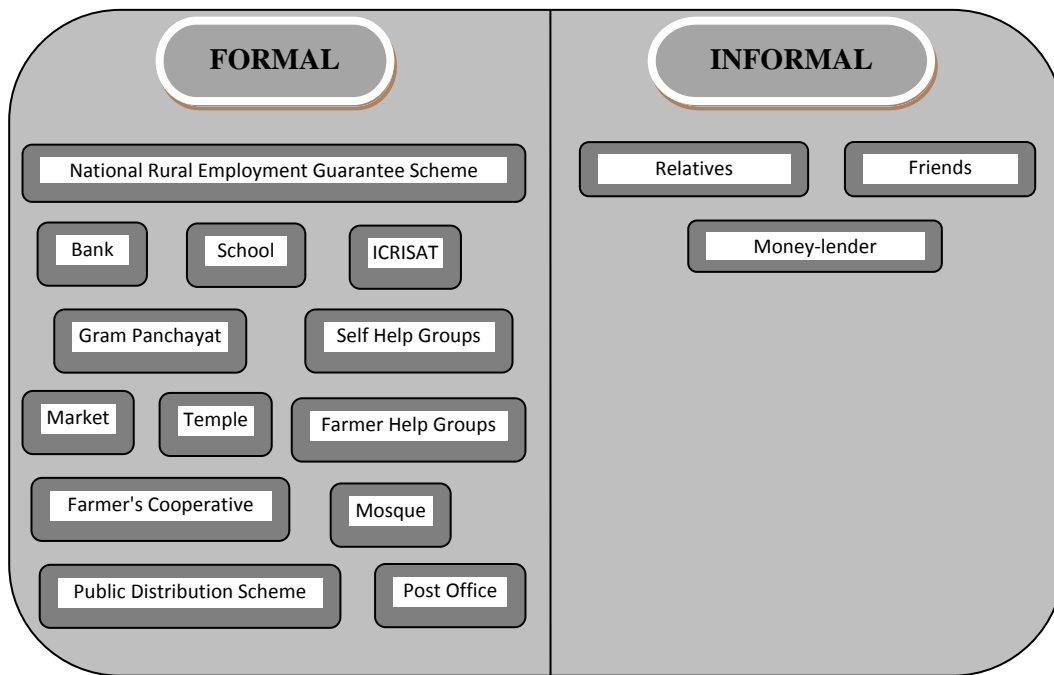
Institutions are defined as humanly-made mechanisms which shape social and individual expectations, interactions, and behavior (Agrawal 2008). A variety of institutions exist to facilitate climate change adaptation for a village. To understand the extent of the impact of the institutions, their internal processes, external relationships, and linkages with different social groups and households must be studied. Institutional access refers to the degree to which households and different social groups are connected to institutions and are able to gain institutional benefits due to their connections (Agrawal 2008). A household's resilience, or its ability to absorb ecological and social stress, while still maintaining its ability to self-organize and learn is dependent upon its institutional access (Duarte, et. al 2007).

Institutions can be broken down into formal and informal mechanisms. Formal institutions include the established rules, laws, contracts and procedures familiar to all lawyers and political scientists (Jordan, O'Riordan 1997). The existing formal methods of adaptation refer to any structured organization facilitating climate change adaptation for the village. Formal institutions operating in villages include, but are not limited to: self-help groups, private institutions (seed companies), co-operatives, banks, fodder depot, the agricultural department, watershed department, and the Gram Panchayat (Banerjee, Bantilan, Singh Draft 2010).

Informal institutions often operate outside the formal legal system and reflect unwritten codes of social conduct. Examples of these social networks include religion, caste, marriage, land inheritance, and money lenders (Livelihoods newsletter 2010). Informal institutions possess a more loosely organized structure than the formal institutions in operation. Both informal and formal institutions prove beneficial to securing the farmers' livelihoods, especially during times of climatic shock.

3.2 Institutions in Kinkheda

Figure 2: Formal and informal institutions in Kinkheda.



A large number of formal institutions operate in Kinkheda village, while the farmers listed only three informal institutions which assist their livelihoods. The classification between formal and informal institutions is semi-fluid, and Self-Help Groups (SHGs) serve as an example of this concept. Just a few decades ago, SHGs were viewed as an informal mechanism for empowering women, as they began to emerge and strengthen village life. In 1992, SHGs began to be directly financed by a Commercial bank, as the National Bank for Agriculture and Rural Development (NABARD) launched the pilot phase of the SHG Bank Linkage Program (Abeysekera 2009). The SHGs continue to be recipients of government loans and benefits; thus, making them a formalized institution.

3.3 Local Governance Structure

The Panchayati Raj Institutions are represented by a nine member, elected Gram Panchayat at the village level. Kinkheda is a member of a grouped Panchayat due to the small size of the village (under 200 households). Four villages of varying sizes are joined in this Panchayat: Kinkheda, Kamata, Lasanapur, and Pimpalshenda. These villages share the same Sarpanch, who is nominated by the Gram Panchayat members. Due to affirmative action laws, the current Sarpanch was required to be both a woman and a member of the Backward Caste. These quota regulations apply to a percentage of the total Gram Panchayat committee as well, as indicated in figure 3.

Figure 3: Members of the Kinkheda grouped Gram Panchayat.

Name	Position	Village
D. J. Mhasal	Sarpanch	Kamata
A. A. I. Chaus	Vice-Sarpanch	Kinkheda
P. R. Kolkhede	Member	Kinkheda
S. H. Tambde	Member	Kinkheda
P. S. Neware	Member	Kinkheda
D. J. Gorale	Member	Lasanapur
S. V. Golam	Member	Pimpalshenda
J. Patil	Member	Pimpalshenda
R. Thombare	Member	Kamata

*The above shaded boxes indicate the members of the Gram Panchayat that are women.

One other key position in the local governance structure is the Gram Sevak, who executes and monitors the schemes, compiling the government records at the village level. Kinkheda's current Gram Sevak is Mr. Rahul Nikhade, who serves as the secretary of the governing body.

4. Results and Discussion

4.1 Role of Formal Institutions

The first focal question for the research study attempts to determine the impact formal institutions have on a farmer's ability to adapt to climate change. Before assessing, rating, or making suggestions regarding the impact, information was gathered on the existing relationship between the formal institutions and the farmers. The correlating hypothesis framed on the first research point was:

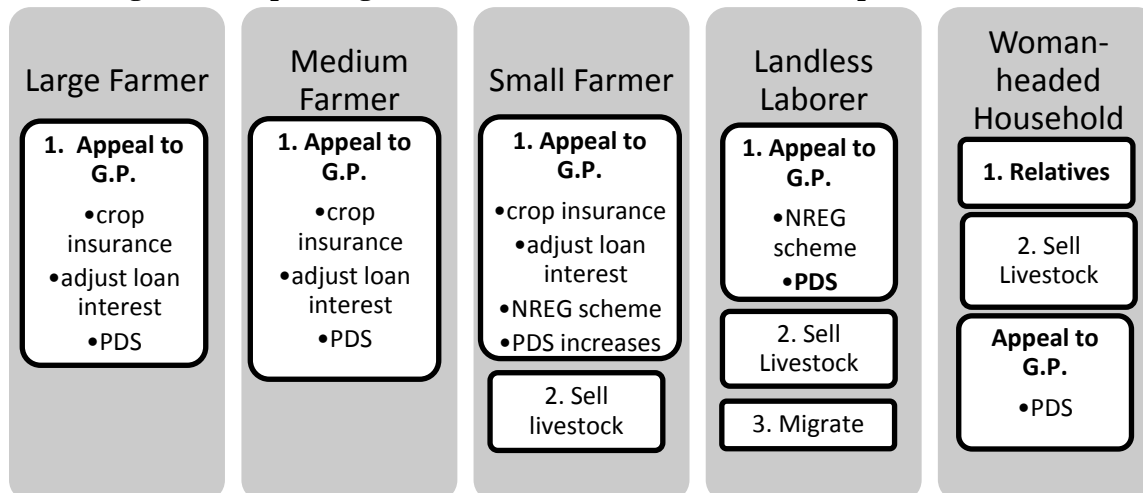
- Formal institutions play an important role in adapting to climatic shocks in Kinkheda.

In evaluating this hypothesis, the institutions operating in Kinkheda were identified. In addition, an understanding of the livelihoods and adaption strategies of the respondents was sought. The institutions operating in Kinkheda were determined during focus group discussions by the process of institutional mapping. In institutional mapping, a circle was drawn to represent the village and three different sized circles were placed on the village depiction to represent operating institutions. The different sized circles of small, medium, and large were chosen by the farmers in the focus group discussions to signify the importance of the institutions to their livelihoods. The position where the circle was placed on the chart signified how many people in the village were assisted by the program. The institutions placed in the inner circle help the majority of people in the village, while those placed near the edge of the outer circle help fewer people in the village. Table 7 lists the programs which were given a large circle and placed in the center circle during institutional mapping, while Figure 4 illustrates the institutional mapping process.

Table 7: Most vital formal institutions and schemes in Kinkheda.

Women	Small farmers and Landless Laborers	Medium and Large farmers
School	School	School
PDS	Gram Panchayat	PDS
Midday Meal Scheme	Midday Meal Scheme	Water Irrigation system
ICRISAT	ICRISAT	Drinking Water
		Indira Awan-Yojana

Figure 5: Responding to climatic shocks - case studies of adaptation methods.



The Gram Panchayat holds a role of high importance to farmers in the Kinkheda village when responding to a climatic shock. The first response given by the representative of each category, other than the female-headed household, listed utilizing a government scheme as the first response to a climatic shock. The female-headed household, although she listed an informal institution as her first response, still cited the PDS shop as substantially benefitting her household. Therefore, the role of formal institutions is important in adapting to climatic shocks in Kinkheda.

4.2 Factors Constraining Success

Formal institutions in Kinkheda possess many flaws which decrease their effectiveness and limit their ability to benefit more farmers through operating schemes. The hypothesis correlating to the second area of the study stood as:

- The extent to which a household benefits from the formal institutions in place correlates to the social status of its members.

An efficient method to evaluate institutions in Kinkheda is to compare the scheme implementation with other VLS villages. Tables 8 and 9 depict the institutional shortcomings in Kinkheda. Few to no farmers participate in or benefit from existing institutional schemes; therefore, further investigation into the factors causing these failures is required.

Table 8: Participants in development program, % in village, 1975-1983, 2001, 2005.

	Total	Aurepalle	Dokur	Shirapur	Kalman	Kanzara	Kinkheda
Observation No.	426	66	75	77	86	86	36
Participation in 1+ Program	47%	50%	49%	56%	73%	29%	0%
Housing	9%	9%	3%	7%	19%	13%	0%
Agriculture	25%	0%	13%	26%	70%	21%	0%
Drought Relief	9%	4%	17%	0%	0%	0%	0%
Human Development	11%	12%	37%	8%	3%	0%	0%

*Sample based on 426 individuals present between 1975-1983, 2001 and in 2005. "Housing" includes: subsidy on the construction of houses, subsidised toilet construction and housing scheme. "Agriculture" include: agriculture input subsidy, subsidy on the purchase of agricultural machinery, and subsidy of bullocks. Human development programmes consist of: female development programmes (family planning and nutrition), child development programmes (support to bonded and child labour, anganwadi, school boys rice), social safety nets (Cheyutha camps and the national family benefit scheme) and education (educational scholarships).

Source: Badiani, Dercon, Krishnan. (Draft 2006).

Table 9: Benefits to participants (Rs., 2001 Prices).

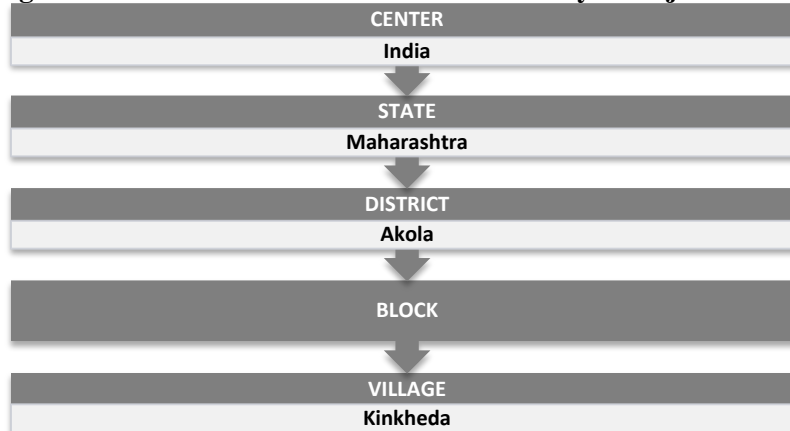
	Total	Aurepalle	Dokur	Shirapur	Kalman	Kanzara	Kinkheda
Total Benefits Received	4874	1744	4993	2615	7083	7148	0
Housing	6540	3767	2000	2500	11250	3864	6540
Agriculture	4144	0	5400	1333	3844	7567	0
Drought Relief	1009	586	1823	0	0	0	0
Human Development	1472	663	1662	2114	773	0	0

* Sample based on 179 individuals who were present between 1975-1983, 2001 and in 2005, and reported having participated in a anti-poverty programme between 1985 and 2001. 2001 prices are used.

Source: Badiani, Dercon, Krishnan. (Draft 2006).

Significant inefficiencies are present within the institutions of Kinkheda village. In addition, Kinkheda shows the least effective institutions in operation when compared to the other five VLS villages. The lack of participation displayed in the above tables was supported by the data collection in Kinkheda. However, this failure in the implementation of development programs observed was not a fault of the farmers, but rather, a fault of the institutional operations.

Crop insurance serves as just one example of a scheme the farmers would attempt to utilize in response to a climatic shock. The scheme falls under the umbrella of the Panchayati Raj institution, and is implemented by the Gram Panchayat. In the drought-prone Akola district, crop insurance is particularly important to the farmers when working to cope with a climatic shock. However, not one farming household involved in the study of Kinkheda was assisted by the crop insurance in past incidences of drought. The ineffectiveness of the crop insurance scheme is due to a variety of factors along the complex process of having a drought declared for the district and channeling the aid down to the village level. Despite the failure of the crop insurance scheme, the farmers are still required to invest in crop insurance, considering the insurance is packaged in all agricultural loans. Due to the past failures of the crop insurance scheme, farmers ranked this scheme as unimportant to their lives and unhelpful to the majority of villagers during institutional mapping sessions.

Figure 6: Disbursement of funds in the Panchayati Raj institution.

Crop insurance is currently run by the state, but even in the transit from the state level to the village, the development and relief funds pass through many hands. Bribery is a large issue of concern within Indian institutions, both on a micro and macro level. The villagers sampled acknowledged bribery as a common occurrence in the institutional system and an accepted norm so people can receive

institutional aid or benefits. When questioned about any existing checks or balances in the system, the farmers spoke of the little transparency present. Their only recourse for reporting corruption experienced is to appeal to higher authorities, which, if discovered by local officers, would risk their future access to institutional aid.

The combined medium and large farmer focus group estimated 75% of allotted money was properly used and 25% lost to corruption, while the women's focus group believed only 50 - 60% of money was properly utilized. The farmers expressed their distaste for the act of paying bribes, but largely accepted paying them in order to gain access to the benefits. The two groups least willing to pay the bribes were the landless laborers and women. These groups spoke of the bribes serving as a disincentive to utilize government schemes due to the greater difficulty they have in affording the bribes. The women focus group shared that they would fear alienation from the village if they spoke out against the corruption, which is why they tolerated the bribery.

The focus group discussions held with Gram Panchayat members and farmers of Kinkheda highlighted some of the largest factors decreasing effectiveness within institutional operations. Table 10 presents the areas of inefficiency mentioned by villagers of Kinkheda.

Table 10: Largest concerns regarding institutional operations in Kinkheda.	
Response of Gram Panchayat Members	Combined Response of Farmer Groups
I. Officials do not come to village to investigate implementation of centrally sponsored schemes.	I. Errors made in the distribution of BPL cards.
II. Crop insurance is only offered when the complete block has a massive crop failure.	II. Financial disincentives to utilize government schemes which discourage participation.
III. Political and unequal distribution of funds and resources to western Maharashtra.	III. Institutional access of a household dependent on political and personal connections.
IV. Money for operating schemes is not channeled to village level until the end of the schemes.	IV. The loss of control or protection from the fluctuating market prices.
V. Rupees sent through post for the grain subsidies must be spent in the same day received.	V. Few opportunities exist to allow farmers to repeal faults or influence changes in the system.

Many loopholes currently exist in the system which decrease the effectiveness of the institutions, particularly in the formal sector. The villagers of Kinkheda experience these inefficiencies daily, and therefore, are the ones best suited for assisting with recommendations for change. Current institutional schemes prove ineffective in terms of participation and benefits distributed, as has been illustrated through both past VLS data presented and data gathered from this study. In addition, a household's institutional access is largely based on the social status of its members. Box 1 shares the case study of Dakshina Bahirkar. Bahirkar serves as an example of a women who possesses little access to formal institutions due to her social status.

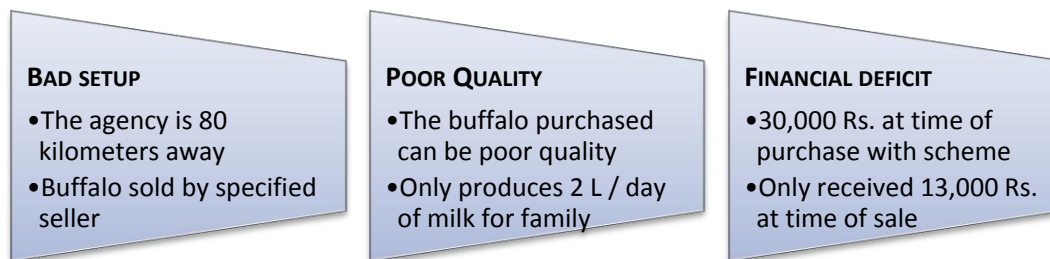
Box 1: Case study of institutional discrimination - women-headed household.

Dakshina Bahirkar represents the women-headed household in the study. Her husband, a farmer, committed suicide in 1982, leaving her to run the household. Bahirkar expressed frustrations with the formal institutions, based on her previous appeals for help that were ignored. She has attempted to utilize government schemes in the past, but has been repeatedly turned away and told to return a later day by the government personnel. Figure 5 on page 15 documented her first response to a climatic shock, which differed from the members of all other social groups sampled. Bahirkar listed her first response as appealing to her relatives - an informal institution - for assistance, and her second option as selling livestock. She has lost hope and trust in the Panchayati Raj institution due to her history of being ignored and set aside by the government. Due to the partiality in the system, households such as Bahirkar's are left without access to aid they need and deserve.

Dakshina Bahirkar was aware of the schemes she was eligible for, and experienced discrimination when attempting to access deserved resources. However, an even graver situation occurs throughout the village in the disbursement of information. Oftentimes the most disadvantaged members in the village have little knowledge of the schemes which exist to benefit them. The large and medium farmers cited numerous schemes during focus group discussions which exist solely to aid the BPL villagers, while BPL residents made no mention of these institutional benefits for which they were eligible.

An additional area of concern for farmers was the poor implementation of institutional schemes. Lakshmi Chiche, a medium farmer, highlighted inefficiencies within the farmer help groups. Figure 7 shares how, by utilizing the institutional scheme, Chiche was financially disadvantaged when purchasing buffalo.

Figure 7: Case study illustrating disincentives for utilizing farmer help groups.



Lakshmi Chihche suffered this great financial loss by relying on the institutional scheme which is created for the purpose of assisting farmers. He voiced his frustration in regards to the rules the government requires one to follow in order to utilize the schemes. By following the guidelines required for him to purchase the livestock, he feels he received only 20% of the benefits, when he should have received 100%. In the future, he plans to purchase livestock without allowing government intervention due to his negative experience.

Tamali Bilewar also suffered from an improper implementation of institutional schemes. She was eager to tell of her hardships regarding the faulty administering of BPL cards in the women's focus group discussion. Box 2 shares her story of gender-based discrimination.

Box 2: Case study of unjust denial of BPL card, Tamali Bilewar's story.

Tamali Bilewar does not possess ownership to any land, and scrapes by each month, living below the poverty line (BPL). All BPL residents of Kinkheda are to receive a BPL card, which then qualifies them to receive rice and other goods from Public Distribution Scheme Shop at a subsidized rate. However, Bilewar has been repeatedly denied her right to a BPL card. She went to the Block level officers to appeal this injustice, but received erroneous information that she was required to take out a loan to receive a BPL card. Bilewar feels as if she has been slighted by the Panchayati Raj institution, and has given up hope in the institutional system. She will continue to purchase her rice at full price for lack of any viable alternative.

The case studies enclosed in Boxes 1 and 2 serve as only two examples of injustices occurring within the institutional sector in Kinkheda. The women, landless laborers, and even small farmers spoke of the alienation they felt from the institutions. Many respondents interviewed in these categories, both individually and in focus group discussions, shared their experiences of feeling ignored by and isolated from operating formal institutions, particularly the Gram Panchayat. However, Baha Udeen Tale, the

small farmer interviewed, possessed enthusiasm and optimism which was not found among others of his status in the focus group discussion. The difference in Tale's status was that in addition to his agricultural lifestyle, he also worked in the PDS shop, which provided him with more political connections, in addition to an increased access to information and institutional benefits. The institutional access of a household has been found to be highly dependent upon its members' status in society.

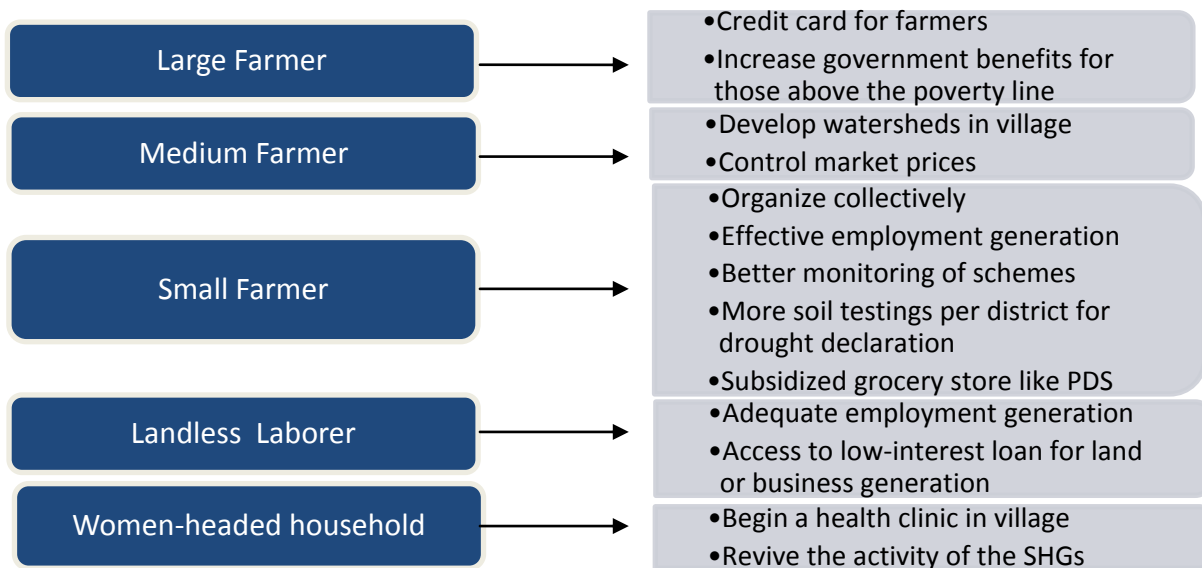
4.3 Suggestions for Improvement

The third and final part of the three dimensional study focused on how the governance of formal institutions, like the Panchatayi Raj, can be made more effective in helping farmers cope with climatic shocks. The Gram Panchayat is one of the only formal institutions the farmers feel they can turn to when facing a climatic shock, yet they have little guarantee in the proper implementation of schemes. The following hypothesis was tested in this area of the study:

- Increasing the farmers' role in policy-making decisions would have a positive impact on the operating schemes.

The Kinkheda farmers bear the hardships associated with life in India's SAT each day, and are the people who best know what schemes needed to be implemented in the village. Below are the answers documented from each social stratum. The response from each category clearly illustrates what the priorities are for the individuals within the group.

Figure 8: Schemes desired by the Kinkheda villagers - a case study.



The plight of each group of farmers is entirely different, as are the suggestions they provide for changes to be made to the institutional system. The large farmers would benefit from easier access to credit, without having to visit the bank to obtain a loan. The farmers provided the example of businessmen, who were able to obtain a credit card for purchases and repay the loan later. Sabal Kolkhede and the other large farmers would like this privilege to be made available to them as well, through a program such as the Kisan Credit Card (KCC) Scheme. The KCC scheme was begun by the Government of India, in collaboration with the Reserve Bank of India and the National Bank for Agricultural and Rural Development (NABARD) from 1998-1999. The scheme provides agricultural credit cards to farmers to meet their credit needs in a more efficient manner than obtaining a bank loan for all agricultural expenses (Faruqui 2001).

The medium farmers were more concerned with the exploitation by the middle man, and wanted to develop a plan which would provide them with security from the fluctuating market prices. The prices farmers receive for their crops at the market play a vital role in determining whether they have a

successful financial year. In addition, Lakshmi Chiche spoke of Kinkheda's dire need for better water management to assist with climate variability and change during his individual interview. Chiche saw the development of a watershed as a great opportunity for employment generation in the village. He also spoke of farmers like himself being willing to donate time and labor if they could only receive the institutional funds to begin the project.

The three more vulnerable categories of farmers were spoken with next: the small farmer, landless laborer, and women-headed household. These respondents eagerly shared the ways in which their livelihoods could be improved through institutional mechanisms. Baha Udeen Tale, the small farmer interviewed, knew he was powerless alone and felt if he could collaborate with other small farmers in the same situation as him, he would gain a greater voice. Baanke Bihaari Ravt, a landless laborer, shared of his desire to obtain access to credit. If the government could provide him with a loan, he felt he would be able to obtain the resources to begin a small business or agricultural plot. With this secured source of income, his livelihood would be strengthened. Dakshina Bahirkar and the women focus group spoke of the most important issue to their group, human health. Although they largely felt ignored from the formal institutions, the scheme they wanted implemented was one for the betterment of all villagers. A health clinic was mentioned as the highest priority need for Kinkheda, due to the twelve kilometer distance to the nearest health facilities.

Throughout the contact with Kinkheda farmers, a recurring theme surfaced. The farmers stated that the institutions were not properly functioning and they had little power and few opportunities to have their input heard. However, if they would appeal to the government with a group, they felt as if they could obtain a more favorable response. If labor organizations and farmer groups in Kinkheda could become more vocal and committed to acting collectively, the level of political and social participation would increase within the village. Accordingly, the power of the farmers in society would strengthen with the development of a farmers' forum to interact with and appeal to government authorities. Ideally, a higher level government employee could also be in attendance to document the concerns of the Kinkheda farmers.

The movement towards collective action to redress inequities in a village level setting is not a new concept for southern India. The Maharashtra state government needs to look no further than to the neighboring state of Andhra Pradesh to view great success with the Self Help Group (SHG) movement. Take the Dokur village as an example, which now has 33 active SHGs operating. Their state government has encouraged involvement in these voluntary societies by providing access to credit, gas connections, and pensions (Rao, Babu, Bantilan 2009).

Institutional incentives are necessary to engage and motivate the Kinkheda villagers to act collectively due to the fact that cultural and societal disincentives prevail. The same farmer who spoke of the increase in power and influence he would gain by acting in a group chose to not be a member of a farmer help group. The reasons he cited for his lack of participation were based on the conflicts which can arise when villagers act collectively. However, judging from the success of Andhra Pradesh, and the Dokur village, societal disincentives can be overcome with economic benefits from efficiently-operating institutions.

In order to ensure improved operations of formal institutions in Kinkheda, greater transparency and accountability needs to be achieved in the system. The farmers have little concept of the funds received by the local institutions, such as the Panchayati Raj, or how they are utilized. Transparency can be increased by the distribution of a public statement detailing funds received and the method of utilization. In addition, government authorities should make routine investigations into the village to increase the checks and balances in the system.

5. Summary of Information Gathered

5.1 Key Findings

The results of the study were as follows:

- **Finding I:** Although the formal institutions in Kinkheda possess many inefficiencies, their role remains essential in facilitating adaptation to climatic shocks in Kinkheda.
- **Finding II:** A household's institutional access, or the extent to which it benefits from the formal institutions in place, correlates to the social status of its members.
- **Finding III:** By increasing the opportunities for collective action and farmer-government interaction, the farmers' power and voice in society would increase, resulting in more successful institutional schemes.

5.2 Recommendations

The formal institutions operating in Kinkheda struggle to achieve proper implementation and leave much to be desired in terms of efficiency. The institutional access of a household correlates discriminatorily to the status and power held by its members in society. However, in spite of the myriads of failures and shortcomings from the formal institutions, such as the Panchayati Raj, these institutions still play a vital role in facilitating adaptation to climate change for Kinkheda Village. The following recommendations should be taken to address the dysfunctional aspects of the institutional systems in the village setting and increase their effectiveness.

- A) Draft framework for scheme alterations, based on farmer recommendations (See Figure 8).
- B) Develop a forum to facilitate villager-government interaction, with outside officials present.
- C) Mandate periodic visits by a government official to investigate implementation of schemes.
- D) Publish and distribute government scheme records to educate and increase transparency.
- E) Establish a free service farmers can utilize to receive information and counsel on institutional schemes for which they are eligible.
- F) Encourage collective action in the village by increasing economic and social incentives.

5.3 Future Implications

The qualitative study of formal institutions carried out in Kinkheda village not only investigated the effectiveness of formal institutions in adaptation to climate change for the study alone; it also began the process for analyzing what the most trustworthy institutions are in Kinkheda for the possibility of a future grant. Since the VLS program began, over three decades ago, ICRISAT has been working with the villages and providing them with education and tools to fight poverty. Looking forward, there are many opportunities for further growth and involvement in the VLS villages through continued guidance and support, in addition to new grant possibilities. The research data obtained in July 2010 from Kinkheda Village can serve as a foundation of knowledge for the continuation of this project.

From the study it can be gathered that the village of Kinkheda is in dire need of assistance within the sector of formal institutions. With deeper studies into the institutional processes and adaptive strategies of farmers in the village, the most reliable and efficient formal institution can be identified. By carrying out these studies in advance of administering a village level grant, the likelihood for the proper implementation of grant money is increased. Throughout the two month study of Kinkheda, inefficiencies in each operating formal institution were identified. Therefore, a perfectly-functioning institution does not exist in the village for handling grant money. Further studies are needed to hone in on the institution and scheme, which, if created, would be most beneficial to all villagers. Several broad guidelines were set from this study to keep in mind when looking forward to a grant possibility in Kinkheda.

5.4 Guidelines for administering grant

- Utilize farmer input received on schemes needed (See Figure 8).
- Ensure follow-up of program/s initiated by closely analyzing the implementation process.
- Give grant over time period in small increments rather than in a lump sum at project's beginning.
- Work to avoid discrimination on the basis of social status in those who benefit from the aid.

In order to best assist the villagers of Kinkheda with any potential scheme initiated in the village with full or partial support from ICRISAT's proposed grant program, the farmers must be involved in the decision-making process. The farmers within the village are most knowledgeable about the areas where Kinkheda needs outside aid. After identifying the scheme or schemes which could benefit Kinkheda, the implementation must be closely monitored over a well-defined time period. By doling out the grant funds over time, the progress can be better tracked to decrease the possibility of corruption and to increase transparency in the system. The final guideline is the most important in ensuring equitable distribution of the aid throughout the village. If aid is granted to Kinkheda, its purpose would be to assist all members of the village, especially the most vulnerable. Therefore, the institutional discrimination which was made apparent in this study cannot be allowed to infiltrate the grant program. The institutional access of all Kinkheda villagers must be universal and equitable for any new scheme which would be initiated by an ICRISAT grant.

Although the formal institutions in Kinkheda do not yet appear ready to properly utilize funds received from a grant, the farmers are ready. By carrying out further analyses in Kinkheda and developing a structured plan for implementation with the aforementioned guidelines, an ICRISAT grant program could have great success in the village.

5.5 Conclusion

The effects of climate variability and change severely decrease farmers' abilities to obtain a sufficient harvest to provide for their needs, particularly in the SAT. Many scientists further predict that current climatic variability will be exacerbated by the continued process of global warming, stimulating more difficulties with rain-fed agriculture in India. Due to climatic challenges, formal institutions must play a vital role in assisting the farmers with adaptation strategies. The farmers involved in the study did not perceive long term climate change as much as they did climate shocks and variability. Therefore, future questionnaires should focus on shorter term effects of the long and systematic climate change occurring.

The study determined that although formal institutions play an important role in facilitating adaptation to climate change in Kinkheda Village, many inadequacies are present in the system. In order for farmers to successfully combat negative effects of climate change, the institutional sector must be significantly bolstered. An ICRISAT grant partnership with Kinkheda could be instrumental in creating access for farmers to schemes which would better their livelihoods. While moving forward with the proposed program, however, many lessons learned from this study must be taken into consideration.

The main factors hindering the success of institutional interventions in Kinkheda are the few existing checks and balances in the system, poor policies, and discriminatory access to institutions. The institutional sector in Kinkheda is manipulated and controlled by the dominant members of the village. To allow a greater institutional access for the poor and socially isolated, the status of the vulnerable members of society must be increased. An excellent method to increase the voice of the villagers is to encourage collective action by providing social and economic incentives. Opportunities for farmer-government interaction must increase in accord, as the institutional sector is required to remove the veil which has been masking its operations. Transparency, accountability, and universal institutional access are three themes which need to be integrated into Kinkheda's institutional operations. By following the recommendations provided in the body of this report, the institutions in Kinkheda will be able to better assist farmers in adapting to climatic changes and challenges in the future.

Concluding Remarks

Prior to setting flight for India, the entire internship opportunity was seemingly inconceivable. The chance to travel half-way across the world, immerse myself in another country and culture, and carry on the legacy of Dr. Norman Borlaug were far-fetched fantasies I had only dreamt about. I always assumed that at some point in my internship, the experience would suddenly become real. Instead, the beauty of each encounter I had in India never ceased to confound me. From my experiences at the

institute to my time in the villages, I soaked up every moment of my time in India. Through the many friends I made living and working at ICRISAT, I was introduced to not only the Indian culture, but also cultures from Sudan, Kenya, Canada, Germany, China, Indonesia, South Korea, Spain, and the Philippines - just to name a few. The people I met and the life-long friends I made thoroughly enriched my experience and fulfilled my every desire for human companionship. However, the saga of my experience in India would not be complete without covering some of the troubling thoughts and emotions which accompanied my beautiful experience.

Being the empathetic person I am, the painful emotion of guilt was one I battled often. I enjoyed meeting the local Indian people, and one Sunday on my walk to the church, I met some boys through the fence who resided in the village neighboring ICRISAT's campus. Putting a human face to the sometimes impersonal topic of hunger and poverty was troubling, and these impressions stayed with me. I probed my mind as I attempted to think of a way I could touch the lives of more people during my stay. An idea manifested itself, which I nicknamed, "Operation Banana." I began saving and stock-piling bananas from my breakfast, lunch, and dinner with the hope of giving them to the children in the village on my Sunday pilgrimage. Through some experimentation (and learning just how long bananas take to ripen when refrigerated), I thought I had found the perfect outlet for my charitable desires. However, when I first attempted to carry out my ingenious plan, I found that the boy did not want my bag of bananas after all. Perhaps he was afraid he would get in trouble, perhaps his family was not in need of more bananas, or perhaps his village was food secure. Regardless of the cause, I returned home, devastated my plan had failed, and resigned to eating black bananas for the next couple of weeks.

The attempted outreach, Operation Banana, did not end in India with the boy's refusal of the stockpiled bananas. Rather, this experience has become integrated into my worldview today. While in India, I was sometimes overwhelmed by the reality that I am only one person, just one force fighting the current in this sea of a world. However, with continued attempts to reach out to the poorest of the poor, I persevere in pushing against this current still today. I refuse to accept the awful injustices of poverty, hunger, and oppression. My goal is to help even one failing fish fight against the current, and to touch the heart of someone who otherwise would feel overwhelming despair and hopelessness.

My work to fight hunger continues today at Wesleyan University in Middletown, Connecticut, as I pursue a degree focusing on the areas of hunger, poverty, and international development. I bring the lessons India has taught me forward in my academic and extra-curricular activities. I have become involved in the local community with various anti-hunger and sustainable agriculture movements. I participate in the town's Food not Bombs chapter, where we prepare and share a weekly vegan meal with the hungry when the soup kitchen is closed. I also receive the opportunity to work with at-risk, oftentimes food insecure, children through the AmeriCorps Student Leaders in Service program at a local elementary school. In my free time, I enjoy working on Wesleyan's organic farm and participating in Wesfresh, an advocacy group for sustainable agriculture.

I continue to view the same sky in my studies and community interactions at Wesleyan as I did during my internship in India and my precious childhood in Iowa. My upbringing with the land has left me with an immense appreciation for nature and all of its gifts. I see the sky as a commonality – a single uniting factor – no matter where in the world one is. Every nation, village, and person coexists under the same expansive sky. Regardless of the people's color, nationality, or creed, the sky remains impartial. Whether I was speaking to interns in Africa, South America, or family back at home, I could visualize a great sense of unity. Under the one sky, we were never really too far apart. The food may be foreign, the languages unknown – but if one can seek out these similarities, he or she can find a home wherever the wind may blow and wherever the sun may shine. I have traveled from Bankston, Iowa to Patancheru, India, to work for the vision Norman Borlaug could see – a world without the terrible stain of hunger and poverty. I learned and experienced much during my stay there – new cultures, rich customs, exciting opportunities . . . but, as always, the very same sky. The global fight against hunger now moves forward into the year 2011, and it is my sincere hope that someday our expansive sky can look down upon a healthier and happier population of people, sitting down to supper.

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