

My Life in Paradise

8 weeks in 22 pages

Katherine Pottebaum
Borlaug-Ruan International Intern
M.S. Swaminathan Research Foundation, Chennai, India

Thank you

- I am eternally indebted to the people of India, especially in the Kolli Hills, and Kannevadi. Whether they knew it or not, they were teaching me about life.
- Prof. M.S. Swaminathan, without his great mind and strong desire to help his people, MSSRF would not exist. And I was so fortunate to be given a place to learn and grow at his foundation.
- R.V Bhavani, my mentor and my friend. She took fantastic care of Abby and I while we were in Chennai and without her, my trips to the Kolli Hills would not have been possible. The passion with which she does her work is inspiring. She is a shining example of what I can hope to be.
- Dr. Kesavan took wonderful care of Abby and I and taught us so much.
- The MSSRF field staff in Namakkal and the Kolli Hills region. Interpreting while I conducted my surveys took them away from their other responsibilities and I am grateful that they took the time.
- Every single member of MSSRF contributed in some way to my experience and to this paper. I will always be grateful for their genuine care.
- The kitchen staff unintentionally taught me so much more than I thought possible.
- And so many thank yous to the World Food Prize Foundation for allowing me to embark on this journey. Dr. Norman Borlaug, John Ruan, Kenneth Quinn and Lisa Fleming all invest so much in the youth of the world and I am grateful for that.

I find it hard to say everything I feel about my internship. Words prove very limiting at this time. I will do my best...

I didn't understand it. It was 4am and there were people everywhere! I feared for my life on our journey to the research center. It was like they had absolutely no laws. There were seatbelts in the car, but when I went to put mine on, Bhavani, the woman taking care of Abby and me, laughed and told me it wasn't the law in India. Sometimes the road would be four cars wide and sometimes two. And there appeared to be no lanes. A person would be riding his bike, and we would come up right behind him and honk and he would just move to the side. Bizarre.

My first impressions of India, I must admit, were scary ones. As my first journal entry explained, Indians simply do things differently. This was just the beginning of my discovery of our differences.

Impressions

"These people eat like horses," I thought with amazement as I watched the noontime activity for the very first time. *"Why in the world was I sent here to study food insecurity?"* Ah yes, my first thoughts as I naively tried to make sense of this sudden transport from western "civilization" to the "other world." Coming from a middle class family in Iowa I knew not what food insecurity was or what it meant to be "food insecure." I grew up often visiting my grandparents on their rural Carroll, Iowa farm so was exposed to agriculture from the get go. My father is a veterinarian and has enlisted my help on country calls more than once. I was aware of the corporate farming takeover but felt there will always be food in front of me when I'm hungry, so it's really of no worry to me.

My name is Katherine Pottebaum and I hail from Winterset, Iowa a town of about 5,500. It is a large farming and agricultural community where about half of my classmates live on a farm. Mrs. Purdy, my science teacher, approached a friend and I last year about writing a paper for the World Food Prize Youth Institute. I had never heard of the World Food Prize but thought, "why not?" So, Katie Leners and I collaborated on a paper about water in the Middle East for the 2002 Youth Institute (YI) symposium. It was through researching for that paper that I realized my fascination of the surrounding world. I learned about the International Internship on the Saturday of the YI. Former interns spoke about the places they went and their experiences. Immediately, I wanted to be up there.

It is now October 2003, and I will be up there. I will be able to share my experience of spending 8 weeks with Abigail Darge-Weeks, also an intern, in Chennai, India at M.S. Swaminathan Research Foundation.

"Wow, India." That was all I could say when the letter came that I would be traveling thousands of miles across an ocean and two continents.

I knew there were things I took for granted like everyone else living in America. What I didn't realize until this summer was just how much we take for granted.

The ability for me to be able to type this, therefore able to read, makes me more educated than over 2 billion people. My ability to spend money for a prepared meal of my choice makes me among the wealthiest 8% in the world, wealthier than 37% of Indians who live off of less than \$1 a day (State...Children). 350-400 million Indians live below America's standards of poverty. And the fact that I can see what I'm typing gives me an advantage over 2 million children, yearly, who develop severe visual problems due to lack of vitamin A (Insecurity...World). I haven't even begun to scratch the surface on the alarming things I learned during my many mornings and afternoons of research in the Bhoothalingam Library at M.S. Swaminathan Research Foundation (MSSRF).

You honestly have never experienced poverty; wait, I didn't even experience it. I just saw it. You have never seen true poverty until you've driven or walked the streets of India. Oh, my heart went out to each and every child sitting on top of a heap of garbage (and there were plenty of heaps) and to the man bent at a 90-degree angle from some debilitating disease. It was absolutely incredible. We would drive the streets, our taxi driver laying on the horn like every other car or bike attempting to move the multiple groups of people out of the middle of the road. There was garbage and litter and waste everywhere. I almost cried because of the state everyone seems to live in, but it's something I have to get used to. I can't save the world, or Chennai, as much as I want to. I can do very small things to help them help themselves improve their livelihood conditions. This email was from my first trip into the city of Chennai. Our first venture out of the MSSRF compounds found us shopping for Indian clothing in a desire to "fit in." I soon learned that no amount of sarees, chidudars or salwars were going to mask my pale complexion and blonde hair. This was the most racially eye-opening experience I've had thus far. Abby and I were truly the minority.

What I envisioned when first told of India internship: "Oh! The places you'll go! Today is your day. You're off to Great Places! You're off and away!" When I first found out I would be going to Chennai (Madras), India to stay for 8 weeks at the M.S. Swaminathan Research Foundation, I was ecstatic. How many people can say they've been to India? I immediately conjured visions of me, red-cape in tow, flying over India sprinkling hunger-free dust over every man, woman, child, and animal with which I came in contact. I saw myself discovering some miraculous new hybrid of wheat or corn or millet that would solve all problems known to man. I would come back having accomplished so many evidently great things.

My home in India

M.S. Swaminathan Research Foundation (MSSRF) is a non-profit foundation started in 1988 by Monkombu Sambasivan Swaminathan, the first recipient of the World Food Prize. MSSRF is a trust recognized by the Ministry of Home Affairs and the Department of Science and Industrial Research in New Delhi. It is seen as a pioneer science and technology research institution focusing mainly on sustainable agriculture

and rural development programs. MSSRF follows a pro-women, pro-nature, and pro-poor philosophy so unique to the eyes of a westerner used to the capitalistic economic system. Sustainable food security, technological empowerment of the poor, engendering agricultural curriculum and biodiversity management are the areas of concentration. The foundation has received recognition and countless awards worldwide for the efforts and support towards a hunger-free India. Penelope Wensley, High Commissioner of Australia to India, believes, "This institution holds a critical key to securing India's future, namely sustainable development."

My duty while in this developing country was to find a specific area of food security and develop a project or study on the region to complete. One could work in laboratory science or social science, ecotechnology vs. biodiversity and biotechnology, communication and education training or costal systems research. Those were just a few of the decisions I had to make in choosing a focus.

Choosing just one topic in one area to focus on proved difficult. I narrowed my field of interest down to nutritional and food security, working closely with the newly developed seed and grain bank projects in the Kolli Hills area. Because I decided on this area, Ms. R.V. Bhavani, principal scientist at MSSRF, became my mentor. She is in charge of implementing the Resource Center for Community Food and Feed Banks. In Tamil Nadu, the state Chennai and MSSRF are in, there are three project sites working with MSSRF. One site, in the Kolli Hills of western Tamil Nadu, is where the community feed/grain/seed banks were started. The scheme is promoting a sustainable community food security system at the village level. The idea is to: identify the ultra poor, those suffering from poverty induced protein-energy under-nutrition, fight calorie deficiency, eliminate hidden hunger, ensure access to safe drinking water, environmental hygiene and primary health care, and strengthen livelihoods through market driven micro-enterprises operated by self-help groups. (Annual Report)

The Root of the Problem

While many factors contribute to one going hungry, three main aspects are highlighted as the largest contributors. The first, seasonal hunger, when one is faced with poverty, is the inability to find adequate food throughout the year. This factor affected almost everyone I talked with in the Kolli Hills. 3-4 months out of the year, usually March to June, are times when food is nearly impossible to find. During these summer months families are forced to migrate, sometimes to another state, in order to find work and food. This period is hungriest because it is the dry season between crop planting and harvesting.

Almost all farmers mono-crop, usually tapioca, a purely cash crop. This means they must solely rely on the market to supply them with the food they need to feed their families. When money runs low, they have nothing to fall back on. There is no excess of rice or millets from the previous harvest that the family can consume until the next harvest.

Natural calamities, weather patterns such as drought or flood, which result in crop failure or poor yields, may prevent important crops, like millets, from being widely cultivated. Farmers are wary of cultivating millets, although they are historically a staple in the Indian diet. Millets are a nutritionally superior food to rice, but in recent years, farmers have taken to the more climate conducive grain. Millets are very climate sensitive. They take a lot of water and excellent soil, two things that can't be relied on in the Kolli Hills. Erratic rainfall and clay soil give this area a disadvantage. That is also why tapioca has increasingly become the crop of choice. It's ability to withstand drought and high selling prices in the market make it ideal to cultivate. Because of the little variation on foods being consumed in these areas, mal-nutrition and vitamin deficiency are recently surfacing issues.

The Hungriest form of Hunger

Hidden hunger, being under or mal-nourished, is when key nutrients are missing from one's daily diet. In the 90's during the Green Revolution, focus was put on creating mass amounts of food for the growing population. The worries were making enough food available to the masses. Hidden hunger was well hidden from view during that time, although it has always existed. It is just recently that focus has turned to the importance of nutritional balance. Having enough to eat isn't good enough. One must be consuming enough of certain vitamins and minerals to prevent serious diseases, some resulting in death.

The chart below shows that the state of Tamil Nadu consumes far less than the recommended amount of all micronutrients except calcium. And the recommendations from the Indian Council of Medical Research fall below numbers volunteered by the World Health Organization.

Micro-nutrient Deficiency in the State of Tamil Nadu

	Average daily consumption	Recommended daily consumption
Protein	44.4g	60g
Calcium	455mg	400mg
Iron	20.2mg	28mg
Thiamine/ Vitamin B	.77mg	1.2mg
Riboflavin	.63mg	1.4mg
Niacin	9.70mg	16mg
Vitamin C	29.9mg	40mg
Vitamin A	184mg	600mg
Calories	1814Kcal	2425Kcal

Several projects have been set up in the Kolli Hills, by MSSRF, to improve the nutritional and livelihood securities of the villagers. Projects are chosen carefully based on logical need and cost and operation effectiveness. Because villages in the Kolli Hills are in remote locations and transportation to and from market 15km away is by foot, it is impossible to include fruits and vegetables into the daily diet when gardens are not privately grown. To reduce this problem, MSSRF helped the village of Nariyankadu setup a “zero energy cool chamber,” a brick-walled structure keeping temperatures around 25 degrees F in summer, keeping fruits and vegetables fresher for up to a week longer than otherwise.

A seed and grain bank has also been put into action in two villages, Nariyankadu and Avurikkadu. Thombais, traditional storage structures, were turned into storerooms for both millet and paddy seeds and grains. In times of transient hunger, families are able to borrow seeds for planting or grains for consumption with the agreement to pay back double what was borrowed. That way the banks are always growing in their surpluses, therefore able to help more and more villagers.

I became increasingly interested in these dealings with micronutrient deficiencies because I felt they were being largely ignored. It’s true that there has been recent heightened awareness, but mostly in those educated, and therefore not as much at risk of these maladies. I created a survey with intentions of finding out the specific diets of villagers in the Kolli Hills. I focused on what is eaten, how much of it and how often. I also asked other related questions. I surveyed:

<u># Surveyed</u>	<u>Gender</u>	<u>Age</u>
3	male	5-15
3	female	5-15
5	male	16-30
5	female	16-30
5	male	31-49
5	female	31-49
3	male	50+
3	female	50+
3	female	nursing
1	female	pregnant

The 36 villagers were interviewed with the translation help of Chitra, Sangottivel and Shakti, three people who employed at MSSRF.

Survey on Food and Nutrition Security

Children Age 5-15 Survey

Name: Manjule

Gender: Female

Age: 15

How many members in your family? Adults: 3 Children: 2

Does your family own any land? How many acres? Yes, 2 acres

What do you grow? Tapioca

Do you attend school? No

What class/level? Up to 8th Standard

If not, why? Had to discontinue due to distance to school

Do you get meals at school? What? When attending school, went home at mealtime

How many meals do you eat a day? What does it consist of? 3 meals, mostly rice

Do you consume vegetables, milk, and eggs at meals? Vegetables yes.

Are you satisfied/full after every meal? Yes

Is food available to everyone throughout the year? If not, why? No

What times of the year are most difficult to get enough food? April to May

How many meals per week provide vegetables and lentils? What vegetables/lentils are they? 3 meals/week, tomato, brinjal, greens

Has your family used the food/grain banks? Yes

Has the zero energy cool chamber increased consumption of vegetables? Yes

Does your family grow vegetables? Yes, brinjal and tomato

Survey on Food and Nutrition Security

16-49 Age Group Survey

Name: Selvaraja **Gender:** Male **Age:** 28

How many members in your family? Adults: 2 Children: 3

Through what year have you studied? +2 (equivalent of high school senior)

Do the children attend school? No

Does your family own any land? How many acres? 1 acre

What do you grow? Tapioca/ Paddy

Why did you choose to farm that crop? Climate suitability

Do you see millet and other pulse cultivation in place of tapioca a lucrative investment? No

Would you be willing to grow a mix of both millets, for consumption, and tapioca as a cash crop? No

What is your family's monthly income? Around Rs. 830/month, Rs. 10,000/year (about \$166/month, \$2,000/year)

How much is spent on food? Almost all of it

How many meals do you eat a day? What does it consist of? 3 meals, rice mostly

Are you satisfied/full after every meal? Yes

Is food available to everyone throughout the year? No

What times of the year are most difficult to get enough food? January to May

What do you do at times of food shortage? Migrate to work

How many meals per week provide vegetables and lentils? What vegetables/lentils are they? 3-4 days, potato and beetroot.

Do you consume milk? Do you give milk to the children? How often? No, milk is not available

Do you consume eggs/meat? Eggs once monthly

Have you used the food/grain banks? No

Has the grain bank and cool chamber helped? How? Has it changed your diet, increased income, given you easier access to grains, increased the availability of vegetables? No

Has the food/seed/grain banks improved your amount of food consumption? No

Has the grain storage banks been effective in lending out? Yes

Has there ever been a lack of grain in the bank? If so, why? No

Has the zero energy cool chamber increased consumption of vegetables? Yes

Do you grow vegetables? What kinds? Chilli, brinjal, bhendi, greens

Are you aware of the different nutritional values in vegetables? No

Do you see adding millets to your diet beneficial to your nutritional health? Not available now

Survey on Food and Nutrition Security

50+ Age Group

Name: Chinnan

Gender: Male

Age:57

How many members are in your family? Adults: 2 Children: 2

Did you go to school? No

Do the children in your house attend school? Eldest child does, younger is not old enough

Does your family own any land? How many acres? Yes, 2 acres

What do you grow? Tapioca, Samai millets (about 20% total land)

What is your family's monthly income? Rs. 1,000-1,500 (about \$200-300) but only in season

How much is spent on food? About Rs. 1000 (\$200)

How many meals do you eat a day? What does it consist of? 3 meals, rice

Are you satisfied after every meal? Yes

Is food available to everyone throughout the year? If not, why? No

What times of the year are most difficult to get enough food? Summer (April to June)

How many meals per weeks provide vegetables and lentils? What vegetables/lentils are they? 3 days

Do you consume milk? Do you give milk to the children in your house? How often?
None available

Do you consume eggs? No

Have you used the food/grain banks? Yes

Has the grain bank and cool chamber helped? How? Has it changed your diet, increased income, given you easier access to grains, increased the availability of vegetables? Yes

Has grain storage banks been effective in lending out? Yes

Has there ever been a lack of grain in the bank? If so, why?

Has the zero energy cool chamber increased consumption of vegetables? Yes

Do you grow vegetables? Yes, brinjal, bhendi

Are you aware of the different nutritional values in vegetables? No

Do you see millets as nutritionally superior to rice or other cereals? Yes

Did you farm millets? Yes

Did they bring you substantial income? No

Were they eaten frequently? Yes

What do you think of tapioca being the dominant crop now? Over 40 years ago, climate was good and rainy so samai and thinai (two types of millet) produced good yield. Now, due to rice being the principal food, we have less energy. Tapioca is cultivated only due to erratic and irregular rainfall.

Survey on Food and Nutrition Security

Women Survey

Name: Rajamani

Age: 32

How many members are in your family? Adults:2 Children: 4

Through what year have you studied in school? None

Do the children attend school? 6th, 4th, and 1st standard; 4th child is 5 months

Does your family own any land? How many acres? 1 acre

What do you grow? Tapioca/pineapple

Why did you choose to farm that crop? Climate suitability

Nursing women...

Did you have any special food during pregnancy? What? Ordinary diet, some vegetables extra

Did you receive supplementary food under the government program? Yes

What was your baby's birth weight? 1.5kg (3.3lbs)

Are you eating nutritious now while you are nursing? What? Normal diet.

Mal- and Under-nutrition

Only 2 out of the 28 adults surveyed had completed +2 schooling. And out of the remaining 26 adults, 17 have no formal education at all. Of the 17 with no education, 12 are women. One child out of 5 surveyed does not attend school. The reason for this is because this girl lives too far from the school.

While schooling for both males and females is improving, I feel that even one child unable to attend school because of a problem so seemingly solved is a travesty. I think that the government must do more for rural schools in terms of providing transportation and basic supplies if they want their country to prosper and grow to its potential.

I found a direct correlation between amount of formal schooling and income levels in my study. The average education of adults, 18 and older, was through 5th standard schooling, the equivalent of 5th grade in the U.S. The average income of families was Rs. 10,000, less than \$2,000 a year. There is no chance for advancement or promotion in agriculture. The land a family owns, mostly 1 or 2 acres, is simply passed on through generations. They have no knowledge of how much crops are worth, how much they should be earning, and therefore, no way of knowing whether they are being treated fairly by the middlemen, the men dealing between the farmer and business. These farmers need to be given necessary information, such as daily prices for their crops, to make wise and lucrative decisions. I believe that lack of education also leads to limited knowledge about foods and their sustenance.

10 out of 13 women interviewed ages 16-50 did not consume milk. Every person interviewed had, at some point, used the zero energy cool-chamber, and said it helped improve vegetable consumption. Yet, less than one-third of those interviewed are eating vegetables more than four meals a week. If one has three meals a day and there are seven days in a week, one will consume 21 meals a week. Vegetables are eaten at only 20% of weekly meals. A person simply cannot receive the needed nutrients found in vegetables by eating them maybe 4 times a week. Twenty out of 32 adults interviewed did not know the nutritional values of vegetables.

How can we expect an improvement of vegetable consumption in villagers if they don't have a reason? Human nature is such that in order for a person to be motivated in doing something, they need to know why. We don't just follow instructions. We ask questions. Indians must be taught the advantages to increasing vegetables in their everyday diets. They must see why vegetables are good for them. They need to know potential consequences of vitamin and mineral deficiencies.

Blindness, caused by lack of Vitamin A, and anemia, caused by deficiency in Iron, are the two maladies seeking the most immediate resolution. There are two kinds of anemia that are the most destructive. An insufficiency of Vitamin B12 is a very common cause of anemia. Vegetarians are often at risk of deficiency because B-12 is only found in animal products. Protein, also found in meat, is needed to aid in the absorption and utilization process in the body.

Iron-deficiency anemia is the most common form of anemia. Iron is found largely in meat and dark green plants like spinach. Meat contains the heme type of iron most easily absorbed, but because the majority of Indians are Hindu, especially in rural areas, they do not consume meat. The other type of iron is called non-heme and is much more difficult to absorb because it must be broken down before amalgamation. Since it is much more difficult to take in, more of it must be consumed in order for the body to receive the needed amount. Iron absorption is also most effective when consumed in a diet with Vitamin C.

Iron deficiency anemia (IDA) is the most pervasive of all nutritional deficiencies in India, particularly affecting women, especially pregnant women, as well as infants, young children, and adolescent girls. Various estimates from different parts of the country indicate that more than 70% of pregnant women, approximately 50% of all women, and 65-70% of adolescent girls may suffer from IDA. And the chances of anemic mothers bearing children with anemia are dramatically increased. (Micronutrient) Because the child is anemic, she grows up with a disadvantage and shares that disadvantage with her children and the cycle continues.

Vitamin A deficiency causes about 60,000 children in India to go blind each year. It is the largest cause of preventable blindness in the world. The state of Tamil Nadu only averages 184mg of vitamin A daily. The recommended amount of consumption is 600mg. (Atlas) Great sources of vitamin A are mangos and papayas, two fruits prevalent in India.

Almost all adults interviewed who owned land, cultivated tapioca. In recent years tapioca has grown rapidly as a lucrative cash crop. This proves problematic because it takes away from a family's self-sufficiency in times of drought or flooding. It forces a family to rely solely on other farmers for food, and when millet, paddy, and rice farmers turn out a low yield because of natural calamities, everyone has no food. There are no reserves or surpluses from the previous year to fall back on. Families are forced to migrate in search of work until their weather situation improves. This is not the sustainable agriculture MSSRF is working towards.

The Value of Education

I was fortunate enough to experience an Audi 18 festival while in the Kolli Hills. Audi means August, in Tamil, the native language. And 18 was the day of the year it was according to the Hindu calendar. An Audi 18 festival is a cultural sharing time when villagers from all over the hills gather and celebrate their ancestry and heritage. There is much dancing, worshiping, and of course, the buying and selling. There was much being sold from the regional necklaces, bracelets and rings, to plastic dolls and sunglasses, to almost any type of sweet one could imagine. MSSRF set up a stand, manned by women, with the goal of dispersing information on the values of millet farming. One thing I found resourceful was MSSRF's approach to bringing the information to the people. While brochures and handouts could be informative and useful to some, the average rural farmer is illiterate, and therefore the written facts would be lost on them. MSSRF used

the people's rich dramatic culture and developed a play explaining millet's nutritional advantages and increasing monetary benefits. The play was a smash hit. Men and women, myself included, were captivated for hours with plot twists, comical characters, colorful costumes, and native music while learning all about the types of millets and the hybrids being created to improve drought resistance. Until then, I had limited contact with millets. I knew they were popular bird feed in the U.S., but little else came to mind when the word 'millet' was spoken. I soon learned the impressive facts about it.

Minor millets, known as ragi, are the kind of millets produced in India. The finger millet, common millet, and little millet are the species more commonly found in India. Minor millets account for less than one percent of the food grains produced in the world today. Thus they are not important in terms of world food production, but they are essential as food crops in their respective agro-ecosystems. They are mostly grown in marginal areas or under agricultural conditions where major cereals fail to give sustainable yields. Finger millet can be stored for long periods without insect damage and thus it can be important during famine. About ninety percent of millets produced are utilized in developing countries.

Millets are excellent sources of iron with the barnyard and little millets containing 18g and 9g of protein, respectively. Finger millets are exceptional sources of calcium containing 350mg per 100g. They also contain many essential amino acids. The seed multiplication rate is very high in all minor millets and the grain stores well for long periods ensuing a continued food supply during dry season or when there are crop failures. Minor millets harbor few disease and insect pests compared with traditional cereals. Minor millets are valuable for their fodder as well. Little millet and barnyard millet produce more forage per day under dry conditions than any other forage crop. (Millets) This is very important because with attempts to improve milk consumption, feed for cattle is becoming a must.

Despite so many things making millets advantageous for cultivation, they are perpetually ignored. This is most likely because history hasn't been favorable to millets, making them seem to be fragile and weather frail crops, but in recent years, many improvements and discoveries have been made about their resilience in certain weather conditions. The hopes of MSSRF and myself are to educate all on the real facts of millets. It must start with the farmers and rural villagers. Slowly, farmers are again taking chances on the crop they once abandoned for tapioca and the market is taking an upward swing.

My brief survey left me with a feeling that while the implemented interventions are having an impact, positive change can be more rapid with the spread of education and nutrition awareness. In order for any situation to be sustainably improved anywhere, and if "we are to ensure that every Indian has a shelter and the poorest of the poor, access to a life of dignity," as stated by the Prime Minister of India, Shri Atal Bihari Vajpayee, then, education needs to be at the forefront of our objectives.

My Ideas on Food Security

While deciding on an area of food security to work with, I found something nagging at me all the while. It was difficult to get over the fact that I was doing nothing new, nothing spectacular, and nothing revolutionary. My visions of creating a miracle crop and simultaneously ridding the world of disease seemed a bit unrealistic. My path to India and to MSSRF follows two others. My journeys to the Kolli Hills, Kannevadi, and Pondicherry took me there on well-beaten paths. My interviews and questions had already been asked and answered. So, what was I doing here? What in the world can I contribute to this country that the people don't already know about themselves? How am I to ever give back to the people after I have received so much in 2 months?

For eight weeks I was a minority for the first time in my life. For eight weeks, I slept with cockroaches. For eight weeks, I ate rice with my hands. For eight weeks, I was truly and completely happy. For eight weeks I lived in Chennai, India, a city home to 75,000 homeless children.

All I have are my eyes. My perspective is unique. What I saw and the way I saw it is my own creation. No one has traveled the path my brain took each and every time I compared my life in the U.S. with the life of an Indian. My hope is to take what has already been done and look at it in a different light. My findings are humble. I feel that my most valuable offerings to the world are my observations.

I look back realize just how much I've grown. After a few weeks in India, no longer did I stick my head through the mosquito netting of my room to get a picture of "authentic Indians" carrying bowls on their heads, I stopped picking out the constant head swivel that accompanied every Indian's words, no longer did I fear for my life every time I set foot in or on a mode of transportation. Where at first I relished all of the differences as "authentic" and as truly Indian, it soon became a part of my everyday life. I became more comfortable conversing with them than I did spending time by myself. I really feel like I have grown awareness that I couldn't possibly gain anywhere else. And I've come to believe that awareness and knowledge, together, can combat our most devastating world problems.

In late June, I spent about 7 hours in an Indian hospital for food poisoning. While hooked up to an I.V, I had one thought running through my head. I wasn't scared to die and I didn't fear infection. My only thought, as a woman from MSSRF stroked my hand, was how lucky I am to have the experience of an Indian hospital. It just furthered my belief that Indians are the most caring and hospitable people on the Earth. And it really increased my motivation to do everything possible to create awareness about this country that has, in part, become my own.

It was really wonderful to see my family and friends again, but it's also very weird. It was weird in the sense that I don't feel like I can relate to them anymore. Abby and I have grown so much during our 2 months with you and so it's hard to be put back

into my trivial and materialistic existence I once knew. But, I am really looking forward to telling people about MSSRF, India, and what is happening over there. My first couple days after returning home really made me realize how much I wish to teach people here. This first email back to Bhavani promised her I would be the messenger for my people in India. I refuse to forget this promise.

“Think, plan, and act locally, and support at the state and national levels.” The great M.S. Swaminathan said this, and I wish to expand it even further. I feel that to really combat food insecurity, we must be aware worldwide. We must expand the thinking and acting process to an international level. My contribution to combating world hunger is to educate the unaware. I intend on opening the eyes of those blind to worldly plights just as my eyes were helped open. I will bring all that I have learned and am still learning back home with me and share it with those willing to listen. I am prepared. I will make the voiceless heard. I must make their message one to remember. This process will never end, I hope. It will continue throughout my life and the lives of those who hear this story. Gandhi said, “We must be the change we wish to see in the world.” That is my mission statement.

Works Cited

Food Insecurity Atlas of Rural India. M.S. Swaminathan Research Foundation, World Food Program. Chennai: 2002.

“Micronutrient Deficiency Information System.” World Health Organization. Geneva: 1993.

Sorghum and Millets in Human Nutrition. Food and Agricultural Organization (FAO) of United Nations. Geneva: 1995.

State of Food Insecurity in the World 2002. FAO. 2002.

State of the World’s Children. UNICEF. 2002.

2001-2002 Annual Report. M.S. Swaminathan Research Foundation. 12th ed. Chennai: 2002.

“They’re our future, and many of them are on our streets.” The Newindpress. 04 Oct. 2002.



Village girls and me in the Kannevadi village.



Conducting interviews in the Kolli Hills.



The MSSRF stand at Audi 18, handing out information on millets.



Abby and I with a women's group in the Kolli Hills.



Me standing in front of the beautiful Kolli Hills.



A tapioca field in Kolli Hills.



A thombai, the traditional storage house used by MSSRF for the seed and grain banks in the Kollu Hills.



Bhavani, Abby, me, and Prof. Swaminathan after Abby and my presentations to the MSSRF staff shortly before coming home.