

**THE HUNGRY SEASON:
CHANGING APPROACHES TO HUNGER IN WEST AFRICA**

A thesis presented

by

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ABSTRACT

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Abstract: The problem of hunger in West Africa is severe, but a single cause is difficult to identify. The number of factors implicated in causing hunger is surpassed only by the number of organizations in the area attempting to address it. While each has its own specific approach, the interventions can generally be grouped into three categories: medical, agricultural, and humanitarian. This study seeks to elucidate why such different approaches exist and to investigate how the passage of time has affected the aid industry. In particular, the trends of neoliberalism and localism are highlighted. The multifaceted nature of hunger itself necessitates a multifaceted response to the problem, and these responses are extremely susceptible to influence by international trends. Thus, the modern aid climate is increasingly characterized by local participation, which has led to an empowerment of individuals in the developing world to participate in and even manage the development process.

Keywords: Hunger, Famine, Malnutrition, Senegal, West Africa, Developing World, History of Aid, History of Medicine, History of Agriculture

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LIST OF ABBREVIATIONS USED IN THE TEXT

AGETIP	L'Agence d'Exécution des Travaux d'Intérêt Public contre le sous-emploi Public Interest Agency against Unemployment
CIDR	Compagnie Internationale de Developpement Rurale International Organization for Rural Development
CLM	Cellule de Lutte Contre la Malnutrition Malnutrition Fighting Unit
CNP	Community Nutrition Project
IMF	International Monetary Fund
MFDC	Mouvement des Forces Democratiques de Casamance Democratic Forces of Casamance
NGO	Non-Governmental Organization
PCV	Peace Corps Volunteer
PPNS	Programme de Protection Nutritionelle et Sanitaire Nutritional and Sanitary Protection Program
RTUF	Ready to use Food
SAED	Sociète d'Amenagement et d'Exploitation des Terres du Delta du Fleuve Senegal Senegalese River Valley National Development Agency
UN	United Nations
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WFP	World Food Programme
WHO	World Health Organization

INTRODUCTION

It is dusk in a small village in the Haute Casamance region of Senegal. The village is inaccessible by road; this morning we were able to convince a taxi driver to take us the 5 kilometers into the bush. We have spent the day touring the fields, learning the cultivation techniques used in the village. The women have been out in the rice paddies, singing and turning the seed into the ground in rhythm; the few who stayed back in the village were busy gathering the grain from the storage hut, taking care not to deplete it too fully so early in the hungry season, the months before the harvest when many struggle to find food. Now we sit on a woven porch in front of the chief's mud hut, watching the children play with the goats that have wandered into the village. The women have been working in the kitchen hut for hours, first pounding the millet to remove the husks and then cooking in a pot over an open fire. We are called in to the hut of my host, where a large dish of porridge waits, far more than we can eat. Holding up our cell phones for light, we eat our fill. I am advised not to bite down all the way, as I would then realize how much sand and grit I am consuming. When we finish our meal, we hand over the bowl to the still-hungry children; while Senegalese hospitality requires guests to be given more than their fill, the other villagers have not eaten so heartily. The women clean the kitchens as the children retreat to their huts, and the men gather on the porch to smoke cigarettes and discuss the plan for planting and weeding the fields the next day. The last rays of the sun fall beneath the horizon, and we slowly disperse, off to sleep and prepare ourselves for the day ahead.

The above story could have taken place in almost any of the countless small villages across West Africa. Daily existence has its own rhythm: hard work in the fields,

relaxing evenings in the village interrupted by the occasional loose cow or steer. This lifestyle has alternately been idealized and ridiculed by the west; it is at once underdeveloped and idyllic. One thing shared by many in the developing world, across cultures and continents, is the experience of hunger. Often, modern subsistence farming does not produce enough food to feed a family year-round. Supplementary food from the local market town can be monetarily out of reach, especially during the hungry season, which occurs in the months preceding the harvest. It is difficult to balance the interests of those selling the food, who are often themselves in desperate poverty and need income from the grain, and those attempting to buy it.¹ The situation is not, however, without hope. There are many individuals and organizations, both international and local in origin, working to combat hunger and improve the lives of those who suffer from food insecurity. The ways in which these individuals go about their work varies greatly. Some work in health posts to treat malnutrition and provide nutrition education. Others work with farmers to teach them more productive farming techniques and supply them with improved seed and fertilizer. Still others provide food supplements in times of famine or during years of particularly bad harvest.

The variety of ways in which people attempt to treat hunger attests to the complexity of the problem. But causes these differences in approach? How have the interventions which characterize a specific approach changed over time? How has the passage of time affected the frequency with which interventions are chosen? How have international trends, such as neoliberalism and localism, affected the aid climate? To understand how the organizations and approaches have changed over time, organizations

¹ John M. Staatz, Victoire C. D'Agostino, and Shelly Sundberg, "Measuring Food Security in Africa: Conceptual, Empirical, and Policy Issues," *American Journal of Agricultural Economics* 72, no. 5 (1990): 1312-13.

from several different decades will be examined. This investigation will provide a concrete look into the realities of aid in the twentieth and twenty first centuries and will help us understand the historical conditions that have led to its modern iteration.

Structure and Overview

A variety of sources will be engaged to answer these questions. The most important primary sources are my interviews with providers of aid in Senegal. In the summer of 2009, I spent three months traveling around the country meeting with organizations providing relief and developmental aid in the area. Through interviews and site visits, I was able to gain an understanding of the aid work happening on the ground in the modern day. In exploring the way that this has changed over time, I relied more heavily on published sources. While I did get an oral history of some organizations during my interviews, it was also necessary to explore aid organizations that no longer exist or have changed significantly. *A Claim to Land by the River: Rural Development in Senegal 1720-1994* by Adrian Adams and Jaabe So was an invaluable resource in understanding a constituent history of agricultural aid. Still other projects were investigated using project proposals and reports from the various funding and implementation organizations.

The secondary literature necessary for this paper was extremely varied. I knew that an investigation into an issue as complex and multifaceted as hunger would require information from many different fields, but I never imagined that the span would be so broad. The majority of the sources came from the fields of medicine, agriculture, and economics, which itself might be rather surprising. Further information was garnered

from evolutionary theory as well as texts from the fields of psychology, philosophy, anthropology, engineering, and many more. The diversity of sources reflects the complexity of the problem, which complicates any attempt to study the field fully. Most secondary sources intentionally approach the problem of hunger from a single perspective, as it is difficult to integrate so many different fields and ideologies. In this paper, I felt it was necessary to explore many different ways that hunger is written about in order to better understand the diversity of organizations working on the ground and the complexity of the issue. Hunger seems to be rather simple at its core – people are hungry and need food – but the number of factors contributing to the problem betrays hunger’s fundamentally convoluted nature.

In examining the approaches to hunger aid, three main categories emerge: the humanitarian approach, the agricultural approach, and the medical approach. While it is impossible to place every hunger intervention in three conclusive groups, the majority of the organizations working in hunger aid undertake projects that fit in one of these three categories. Each intervention will be examined at length to better understand why different organizations choose those approaches and what characteristics those organizations share. An emphasis will be placed on the way that the interventions that constitute each approach have been affected by global trends, such as localism or structural adjustment. Furthermore, the changing make-up of the field over time will be examined, exploring why some types of interventions have become more popular while others have fallen out of favor.

The paper will be divided into three chapters, each focusing on a different approach to hunger and famine. Each chapter will first seek to understand what aspect of

hunger the approach addresses and then explore the effects of major global trends on that approach. Then, we will investigate what interventions characterize that approach. Once an understanding of the basics of the approach has been achieved, case studies will be explored. Each case study will highlight the work of a specific organization whose work falls into that category, looking at what characterizes the approach in practice and how different projects embody the approach. By comparing characteristics of different projects within a single approach, a comprehensive understanding of the approach can be achieved. In each section, the changes over time in the field, either in the type of work undertaken or in prevalence, will be examined in historical analysis. The generalizations are not meant to oversimplify the issue, but to make clear the far-reaching scope of this problem and the characteristics of different solutions. I begin with the medical approach and then move to the agricultural approach, finishing with the humanitarian approach. First, we will look into the background of some major issues in the field to contextualize the case studies.

Why Senegal?

Development work necessarily has different manifestations in different countries. The developing world is not a cohesive unit; the phrase refers to countries all over the world and every continent has a country that could be considered to be going through the process of development. Comparisons between different countries or regions can be difficult to make successfully, as the cultural contexts can be so disparate as to make a comparison meaningless. For this reason, a single region will be examined in this paper: West Africa. Nearly all populations in the developing world struggle with food security

issues; West Africa is not unique in that sense. It is, however, a region in which the problem is getting worse rather than improving. Climate change has had a profound impact on West Africa, as it is a semi-arid region and lies on the edge of the Sahara Desert. Warmer weather lessens the total rainfall every year, which can be catastrophic in a region with so little rainfall to begin with.² While in other regions, such as Southeast Asia, governments have begun to address the issues of food security and can be extremely effective in times of crisis, West Africans still struggle with this problem, and will likely continue to have difficulties in the coming decade.³ As climate change worsens, this region will be one of the hardest hit.

Hence, West Africa is a region of significant aid activity. There is a great diversity in the types of organizations (local versus international; government funded versus non-governmental organization [NGO]) and the types of work that they undertake. It is clear to organizations around the world that this is a region that has been challenged by its situation for decades, and will continue to struggle well into the future. An investigation into responses to hunger would be impossible without a wealth of aid organizations to compare; consequently West Africa is an ideal region on which to focus. In particular, we will focus on the nation of Senegal. Its peaceful history allows us to see how aid has changed over a longer period of time than is possible elsewhere in the region.

² Thomas E. Downing, *Climate Change and Vulnerable Places: Global Food Security and Country Studies in Zimbabwe, Kenya, Senegal and Chile*, Research Report; (Oxford, U.K.: Environmental Change Unit, University of Oxford, 1992), 31.

³ John C. Caldwell and Pat Caldwell, "Famine in Africa: A Global Perspective," in *Mortality and Society in Sub-Saharan Africa*, ed. Etienne Van de Walle, Gilles Pison, and Mpembele Sala-Diakanda (Oxford: Clarendon Press, 1992), 371.

The nation of Senegal was granted independence from France, its colonial overlord, in April of 1960, during an era when many colonies were released from their colonizers.⁴ The French had been in the region for centuries, first participating in the infamous transatlantic slave trade and then continuing to administer the colony and reap its benefits after slavery was abolished. The long-term presence of the French affected the region deeply, leading to the creation of unnatural national boundaries that did not respect tribal lines. Despite this artificial division, the nation of Senegal maintained these colonial boundaries when it became independent.

The independence of Senegal, while it occurred at the same time as the independence of many other West African nations, was unique in its intrinsically peaceful nature. The nation was immediately able to elect President Leopold Senghor, who created the current democratic system in Senegal. He led the nation for more than twenty years, and his presidency can be seen as a hallmark of the early era of modern Senegal. When Senghor left office, the transfer of power occurred peacefully, as it has in the years since then.⁵ The early stability of the Senegalese political situation led to extensive NGO activity in the nation, as it was a safe location for Western volunteers. This stability lasted over the decades, allowing aid organizations to remain for longer periods of time than was possible elsewhere. With the exception of the Casamance region, which has had considerable separatist activity over the past few decades, the region has not seen significant warfare since before the advent of independence. A study of Senegal allows us to examine the longitudinal nature of the aid industry and the

⁴ Michel Garenne and Pierre Cantrelle, "Three Decades of Research on Population and Health: The Orstom Experience in Rural Senegal, 1962-1991," in *Prospective Community Studies in Developing Countries*, ed. Monica Das Gupta (New York: Oxford University Press, 1997), 233.

⁵ Sheldon Gellar and Indiana University Bloomington Workshop in Political Theory and Policy Analysis, *Democracy in Senegal: Tocquevillian Analytics in Africa* (New York: Palgrave Macmillan, 2005), 118.

changes that have occurred in the decades since independence. No other nation in the region has such a history of developmental aid, so it is an ideal location.

The Difference between Relief and Development

The field of aid is an intricate one, and it is helpful in the academic context to create divisions to better understand the work of different organizations. Here, a fundamental divide in approaches will be explored: that between work done to help countries weather specific catastrophes and work with the primary intention of helping developing countries develop to the point that such outside intervention is not necessary. In this paper, the former will be called relief work and the latter will be called development work. While organizations do not neatly fall into these categories, it is a useful way to understand the function and purpose of different actions in the field, and helps explain the breadth of activities undertaken by this industry. The distinction between relief and development is ideal for exploring the differences between the humanitarian, agricultural, and medical approaches to hunger aid.

Relief Work

The relief approach is the simpler of the two, and requires far less infrastructure. In this paper, relief work will be defined as a project to help a country or region recover from a traumatic incident. In the realm of hunger, this is generally a famine brought on by war, drought, or mass migration. These crises often lead to international attention, and aid organizations come to provide emergency food aid. Often it is necessary for organizations undertaking relief projects to work with organizations doing development work, which already have infrastructure built up in the area. Smaller, local organizations

are more familiar with the region and the difficulties that will likely be encountered in the implementation of food aid remedies. Furthermore, it is difficult to operate in a country without a working knowledge of the local language, which can be difficult to attain in such a short period of time. There is no place for long-term strategizing about a region in relief work; in general, organizations involved solely in relief work stay for the most severe phase of the crisis and leave once the situation begins to improve. More recently, however, organizations that traditionally did relief work have begun to remain in the region after the crisis and continue to provide aid using the same philosophy that they used during the disaster.

Development Work

The more complex of the two, development work focuses on long-term strategies for not only crisis situations, but helping the nation progress and fulfill its potential. Agencies that focus on development work make long-term commitments to the communities they serve, getting to know local leaders. They often learn the local language and work alongside the local populations. Development work attempts to teach locals how to help themselves so that they will soon no longer require outside help. In functioning democratic societies, some organizations work to help promote the governmental priorities, and help set policy that will best serve the oft-impooverished rural populations with whom they work. By creating policy and developing infrastructure, agencies undertaking development work seek to remove the obstacles which have traditionally prevented the developing world from being able to succeed in the global economy.⁶

⁶The irony of development work is that, if everything were to work perfectly, those attempting it would have worked themselves out of the job. As noted behaviorist B.J. Skinner once wrote, "One has most

International Trends

The field of aid has not been static over the last few decades; as different approaches have been tried and more evidence has come to light, aid practitioners have adapted their methods to reflect new knowledge. Trends in aid also reflect worldwide trends; the infamous structural adjustment programs mandated by the World Bank were created in response to international deregulation and growing debt in the developing world due to highly available credit.⁷ These economic events caused policy makers to believe that developing countries would be most successful if they balanced their budgets at the expense of social programs and entered the free market.⁸ Other global trends have equally been reflected in the policies of developmental aid. In the past few decades, the trend of localism has become reflected in aid practices, and the involvement of local populations in the implementation of development programs has become increasingly important. This has been seen in all sectors, and is likely responsible for the recent prominence of agricultural programs and relative paucity of humanitarian programs. Local participation is easy to achieve in the agricultural sector, but is much more difficult to implement in the humanitarian sector.

effectively helped others when one can stop helping them all together.”(B.J. Skinner, "The Ethics of Helping People," in *Altruism, Sympathy, and Helping: Psychological and Sociological Principles*, ed. Lauren Wispe (New York: Academic Press, 1978), 251. Some even argue that developmental aid should not be provided by the West. From a behavioral standpoint, “By giving help we postpone the acquisition of effective behavior and perpetuate the need for help.” (Skinner 251) He, like many others, finds the provision of aid highly problematic in a long-term sense. Regardless of this attitude, development work prevails in modern times.

⁷ Giles Mohan et al., *Structural Adjustment: Theory, Practice and Impacts* (New York: Routledge, 2000), 17.

⁸ David Dollar and Jakob Svensson, "What Explains the Success or Failure of Structural Adjustment Programmes?," *The Economic Journal* 110, no. 466 (2000): 894.

In recent years, the trend of localism has emerged in many different fields and aspects of life. People around the world prefer to eat locally produced food, buy from locally owned stores, and vote for politicians that prioritize local issues. The field of developmental aid has not remained untouched by this movement.⁹ The cause for localism is not completely understood, but there are several proposed theories. Some believe that localism in development actually came out of neoliberal policies, just as structural adjustment did. Neoliberals, in enacting their development policies, realized that by encouraging institutional reform they could encourage civil society, which itself can work to increase democratic stability by organizing dissent.¹⁰ Others see localism as a bottom-up, neo-Marxian trend in which local populations have risen up to represent their own interests and challenge those of the state.¹¹ Localism has influenced development work as well; more organizations have tried to understand how locals understand the problem of hunger and how they would address it. Regardless of its causes, localism has drastically affected the landscape of modern developmental aid.

Famine

Hunger is a difficult concept to explain, and its most severe manifestation, famine, illustrates this convolution. In the minds of most people in the developed world, hunger is represented by this most extreme case. These events are often publicized broadly by the international media and are often the only exposure that some individuals

⁹ The recent popularity of microfinance as a means of supporting international development attests to this fact. While microfinance itself has existed since the 1960s and 70s, some have begun to refer to the last few decades as the “microfinance revolution,” which attests to the growth of small-scale, local projects (Marguerite S. Robinson, *The Microfinance Revolution: Lessons from Indonesia* (Geneva: World Bank Publications, 2002), xxxiii-xxxiv.)

¹⁰ Giles Mohan and Kristian Stokke, “Participatory Development and Empowerment: The Dangers of Localism,” *Third World Quarterly* 21, no. 2 (2000): 248.

¹¹ *Ibid.*: 249.

in the developed world have to developing regions. Once an event has been called a famine, the international response mounts. Relief organizations flood the area, attempting to deliver food and other services to the starving populations. There are no standards defining what constitutes a famine, and so the assignment of the term to a situation is often arbitrary. Furthermore, the causes of famine are so multivariate that it is difficult to predict when an incident of catastrophic hunger will occur. For centuries, people believed that famine was solely caused by climactic issues, namely drought, though many of these theories have been refuted.¹² Recently, the focus has been not on food supply issues, but on accessibility constraints related to infrastructure.¹³ The effects of famines stretch far beyond death tolls; a famine can interrupt a country's governmental infrastructure and productive capability entirely.

Definition and Causes of Famine

Famine is notoriously difficult to define, as there is no international consensus on the number of deaths or degree of severity that denotes a famine. In their work on famine, Mellor and Gavian collect some attributes that suggest famine as opposed to chronic hunger:

Famine...is distinguished [from chronic hunger] by large-scale loss of life, social disruption, and an economic chaos that destroys production potential. Symptoms of famine include migration, distress sales of land, livestock, and other productive assets,

¹² William I. Torry, "Social Science Research on Famine: A Critical Evaluation," *Human Ecology* 12, no. 3 (1984): 235.

¹³ It is interesting to consider whether this change in perception was merely caused by a change in the way that scholars think about famine, or by an actual change in the root causes of famine in the world. In nearly all cases of modern famine, there is enough food to save the starving populations somewhere in the world, perhaps even in the nation itself. The challenge comes in arranging for the food to be brought to the afflicted region and distributed to those who need it. The field of implementation science has gained significant traction among academics over the past decade, which is indicative of the importance of implementation in famine relief.

the division and impoverishment of society's poorest families, crime, and the disintegration of customary moral codes.¹⁴

The destruction wrought by famine doesn't stop at starvation; it is able to disrupt an entire society by forcing its remaining productive members to care for those who have been incapacitated by the famine. It is difficult to decide what criteria constitute a famine; some claim that average caloric intake should be used, others think it should depend on the number of deaths or an economic analysis of the region.¹⁵ It seems incredible that an occurrence such as famine, which has been recorded worldwide over the past centuries, has no formal definition, and there is no coordinating body charged with making the decision of whether or not an incident is a famine. The ambiguity surrounding famine makes it difficult to understand fully the impact it has had on West Africa in the postcolonial era, but it is clear that hunger-related incidents have had a devastating effect on this region.

While it may be difficult to devise a generally-accepted definition of famine, it can be even more difficult to understand what actually causes a famine. There are three major components necessary for food security, and if problems arise in any of these areas, a famine could occur. These components are native food production capacity, dependence on external sources of food, and equitable food availability to different groups and individuals.¹⁶ Crop failure is the most frequently cited cause of famine, but this is deceptive in its simplicity. Crop failure can result from a variety of factors, from drought and weather issues to war, which engages farmers in combat and keeps them

¹⁴ John W. Mellor and Sarah Gavian, "Famine: Causes, Prevention, and Relief," *Science* 235, no. 4788 (1987): 539.

¹⁵ Torry, "Social Science Research on Famine: A Critical Evaluation," 233.

¹⁶ Laura Bigman, *History and Hunger in West Africa: Food Production and Entitlement in Guinea-Bissau and Cape Verde*, Contributions in Afro-American and African Studies, 0069-9624 ; No. 159 (Westport, Conn.: Greenwood Press, 1993), xi.

from tending to their fields. But famine does not always have to result from crop failure; indeed it is difficult for crop failure alone to cause a famine. Instead, a variety of other factors can amplify the effects of a single problem and lead to widespread hunger. Government mismanagement of crisis often causes just as many deaths as agricultural failure, if not more.¹⁷ Sometimes food will be available in a region, but the mortality rate remains high because the price of available food is out of reach for most people.¹⁸ In his work on famine, Torry attempts to explain the trends in literature over the past few decades regarding famine. The causes of famine most frequently discussed are weather cycles, food supply and price oscillations, and information management failures. These factors work together with many other factors to cause famine.

Burden of Famine in West Africa

Famine in Africa, in particular, has a long history. In the early years of colonialism, famine aid was not given priority. This led to a decline of the population of French Equatorial Africa, a comparable region, by as much as 63% between 1911 and 1921. While massacres and compulsory labor also contributed to this death toll, the related famine was far more destructive.¹⁹ Famine is mitigated in Africa by some practices, such as nomadism, shifting cultivation, and flexible political boundaries, but it is still a major cause of death throughout the continent.²⁰ It is impossible to analyze the dynamics of food and hunger in Africa, especially climatically vulnerable West Africa, without acknowledging food crisis and famine and the responses mounted to prevent and alleviate the effects of such disasters.

¹⁷ Caldwell and Caldwell, "Famine in Africa: A Global Perspective," 371.

¹⁸ *Ibid.*, 373.

¹⁹ Bigman, *History and Hunger in West Africa: Food Production and Entitlement in Guinea-Bissau and Cape Verde*, 5.

²⁰ Caldwell and Caldwell, "Famine in Africa: A Global Perspective," 372.

The effects of famine are dire, and should not be underestimated, but it is far from the leading cause of death in the region of West Africa. Indeed, as Caldwell and Caldwell explain, “The major component of mortality [during famine] remains the ‘normal’ mortality as exhibited in the average non-famine year.”²¹ In West African countries, for example, famine deaths make up less than ten percent, maybe even less than five percent, of total deaths in the region.²² The populations most affected by famine are the extremely young and the extremely old, who are the most vulnerable to changes in diet patterns. Interestingly, there is also a significant burden of famine on young men, who occasionally give up their meager rations as a sign of respect towards their elders.²³ The importance of such cultural factors cannot be underestimated when trying to understand the issues surrounding famine mortality. These understandings are even further complicated by the sheer number and variety of aid organizations involved in famine relief in a high-profile area. When an appeal for aid due to famine is advertised around the world, aid organizations rush in to help deliver food, water, and medical assistance. While this does witness to the diversity of organizations and agencies involved in this work, it can be extremely confusing to understand what has actually happened when integrating the reports of different organizations.²⁴

The effects of famine reach beyond the realm of morbidity and mortality. In particular, famine can overwhelm government infrastructure, particularly when the government is not especially strong to begin with. Often people see famine as something that affects the health of humans, but think little about the effects it has on the health of a

²¹ Ibid., 374.

²² Ibid., 374-5.

²³ Ibid., 373.

²⁴ Torry, "Social Science Research on Famine: A Critical Evaluation," 239.

country as a whole.²⁵ Famine can lead to a perpetual cycle of governmental failure with devastating effects on populations. The contributing factors to the famine, such as national war or regional violence, can further incapacitate the government, forcing it to deal with the emergency rather than continue implementing its previous policies. This in turn sets the country back on its developmental priorities, and can lead to a downward spiral that makes the nation dependent on outside aid. For this reason, many organizations choose to remain in the region beyond the acute phase of a famine, as the problems wrought by the famine endure for decades after it has officially ended.

Aid and External Influences

The trends discussed here begin to illustrate the intricate web of factors that shapes the international response to hunger. All of these factors unite to create the modern academic approach to hunger. These issues are not only applicable in the academic setting, however. Each has a real impact on the way that individuals in the field approach the problem of hunger. I will now use these factors to help explain the variety of approaches to hunger that exist and the ways that they have changed over the last half century.

²⁵ Ibid.: 232.

CHAPTER 1

THE MEDICAL APPROACH TO HUNGER

Malnutrition is one of the most prevalent medical issues worldwide, and can occur in any setting: urban or rural, impoverished or wealthy, tropical or arctic. 9% of children in the world under the age of 5 are afflicted with wasting (a disorder characterized by extremely low weight for height)¹ related to severe malnutrition.² The problem is particularly challenging in the developing world; one estimate hypothesizes that one third of the residents of Africa suffer from malnutrition because they don't have access to resources that would allow them to eat properly.³ Malnutrition is often limited to children, as they have relatively high energy requirements and need specific nutrients to develop properly. A high burden of malnutrition can also be found in adults, however, in times of extreme hunger or famine, or as a result of an underlying metabolic disorder.⁴

Malnutrition has gained momentum as a field of study in the last few decades as some of the more pressing challenges in healthcare in the developing world have been addressed. As deaths from vaccine-preventable illnesses declined with the mass vaccination campaigns of the mid-20th century, practitioners were able to focus on issues related to hunger and famine.⁵ This is not an easy problem to address, and medical practitioners were relatively limited in their ability to deal with the complexities of its roots, instead focusing on treating the patients that came to see them. But how has the

¹ Michel Garenne et al., "Incidence and Duration of Severe Wasting in Two African Populations," *Public Health Nutrition* 12, no. 11 (2009): 1974.

² *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*, (Geneva: World Health Organization, 1999), v.

³ Caldwell and Caldwell, "Famine in Africa: A Global Perspective," 381.

⁴ *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*.

⁵ Gilles Pison, Annabel Desgrees du Lou, and Andre Langaney, "Bandafassi: A 25-Year Prospective Community Study in Rural Senegal," in *Prospective Community Studies in Developing Countries*, ed. Monica Das Gupta (New York: Oxford University Press, 1997), 268.

passing of time affected the types of individuals involved? How has the recent trend of localism played a role in this transformation? In this era, most individuals advocating the medical approach were from the developed world, as they were the only ones with the formal expertise to make the decisions necessary to define a medical course of action. As standards of care evolved and became more accessible, however, this limitation was not nearly as stringent. The medical approach has gained traction from the recent shift towards local participation in development work. In the immediate post-independence era in former colonies, medical work was nearly all done by outsiders, as there were no facilities for medical training in most developing countries. As the infrastructure has grown in many countries, much of the medical work has been taken over by local populations. While not all of them are doctors – indeed there is a long history of non-professionals in medical care – they are capable of performing the tasks necessary to rehabilitate a malnourished individual.

The investigation will begin with an exploration of the specific characteristics that exemplify the medical approach to hunger, using the guidelines for treatment of malnutrition set out by the World Health Organization. Next, several organizations will be studied that typify the actions of large multinational organizations, namely the Peace Corps and the World Bank's Senegal Community Nutrition Project. These organizations characterize a large-scale approach to malnutrition, though the Peace Corps' unique structure complicates the issue. Finally, we will investigate the rise of local organizations. A manifestation of this in West Africa is Animatrices de Santé, a health education program run by a women's collective in Kedougou, Senegal. The international trend of localism has influenced the character of this field, changing it from a situation in which

large international actors partner with local people to provide medical treatment to one in which locals have the power to combat malnutrition themselves.

Characteristics of the Medical Approach

The medical field creates universal standards of care for different conditions and attempts to deliver them consistently to all patients in all settings. This leads to difficulties in implementation, especially in resource-poor settings, and the relatively new field of implementation science has emerged in response to these complications.⁶

Problems of execution will be discussed later; in this section the standards of care for malnutrition and undernutrition will be discussed, looking at the two seemingly-disparate fields of treatment and prevention. First, the medical guidelines for the treatment of malnutrition will be examined to better understand the protocols used by the industry.

*Treatment of Malnutrition*⁷

The World Health Organization (WHO), considered by many to be the leading authority in definitions of standards of care, has published a book for healthcare professionals on the specific guidelines for treating malnutrition in any setting. In it, WHO defines three phases of care: initial treatment in a hospital setting, rehabilitation in a hospital or nutrition rehabilitation center, and follow-up with the family over the next several months.⁸ The initial phase generally takes between 5 and 7 days, and involves the treatment of the many comorbidities that can occur with (and often contribute to)

⁶ Dean L. Fixsen et al., "Core Implementation Components," *Research on Social Work Practice* 19, no. 5 (2009): 531.

⁷ It is interesting to note the different terminology used by different approaches. For medical professionals, problems of hunger and famine are grouped together in the term malnutrition. The root causes of the condition are not important to the physician, what matters is the treatment of the symptoms that occur, and so all hunger-related conditions can be grouped into a single term.

⁸ *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*, 2.

malnutrition. The patients must be constantly monitored for infection, hypothermia, and impaired liver or intestinal function. Once those issues are addressed and the patient is out of immediate danger, he or she can be put on the rehabilitation diet and moved to the next phase of treatment.⁹ Feeding the patient is important, but it should not be prioritized at the expense of monitoring and treatment of other issues such as micronutrient deficiency, anemia, and the threat of heart failure.¹⁰ As the job is incredibly time consuming, involving feedings every few hours and constant monitoring, it is often not undertaken by doctors.¹¹ Indeed, WHO recommends that therapeutic feeding centers in disaster situations include 10 nurses aides, 3 nurses, and only one part-time doctor.¹²

In the most severe stages of malnutrition, a patient no longer experiences the sensation of hunger. The body shuts down in order to preserve its most basic functions. Once the patient becomes hungry, he or she can be switched from the initial treatment phase to the rehabilitation phase.¹³ As part of this process, the patient is moved through a series of diets (known as F-75 and F-100) which provide all of the vitamins and nutrients needed without overtaxing the digestive system.¹⁴ The formula diets are prepared as a porridge, and the amount given to the patient increases with each feeding until he or she is up to a normal amount of food and has the strength to undertake normal daily activities.¹⁵ These processes are often undertaken in the nutritional rehabilitation centers,

⁹ Ibid., 7.

¹⁰ Ibid., 17-8.

¹¹ Ibid., 15.

¹² Ibid., 35.

¹³ Ibid., 15.

¹⁴ Ibid., 13.

¹⁵ Several recent studies have critiqued the recommendation of these formula diets, citing the danger of reconstitution of the porridge with contaminated water in home communities. Instead, they advocate for “ready to use food” (RTUF) which replaces some of the milk powder with peanut butter and thus does not have to be reconstituted like porridge. The study by Diop et al shows that this is even more effective in rehabilitating malnourished individuals than the formula diets proposed by WHO. (El Hadji Issakha Diop et

which are outpatient facilities designed to help patients during the day. During this period, which can last up to several weeks, the family of the patient is educated on ways to care for him or her after discharge and how to avoid future episodes of malnutrition.¹⁶ This is an excellent venue for this type of education, as it targets those populations that have previously struggled with proper nutrition and care.

The medical treatment of malnutrition is not restricted to the medical aspects of the disorder. WHO recommends that it be treated as a disorder with both medical and social causes, as severe malnutrition is often related to the social and economic situations that the individuals are experiencing.¹⁷ Furthermore, treatment centers and hospitals are designed to treat the psychological aspects of malnutrition as well as the medical. WHO recommendations include brightly colored wards, physical contact with the patient, and the provision of plenty of toys for children.¹⁸ This evidences an awareness of the intricate nature of the disorder, which requires multidimensional treatment. Treatment of malnutrition cannot be undertaken in a straightforward medical manner, as that would neglect many related issues and could likely lead to frequent relapse in the most

al., "Comparison of the Efficacy of a Solid Ready-to-Use-Food and a Liquid, Milk-Based Diet for the Rehabilitation of Severely Malnourished Children: A Randomized Trial," *American Journal of Clinical Nutrition* 78, no. 2 (2003): 304-5.) This idea has gained momentum in recent years, and large multinational organizations such as Worldvision have begun to embrace RTUF. A recent solicitation from Worldvision sent to its donors hailed Plumpy'nut (one such food) as a miracle food for the treatment of malnutrition in resource-poor settings. (*Plumpy'nut Solicitation*, (Federal Way, Washington: Worldvision, 2009).) It is believed that the use of RTUF in place of formulaic diets could help to shift the treatment of malnutrition from centers and hospitals to the community itself, empowering communities to help themselves, causing less familial disruption, and providing a more cost-effective alternative. (Diop et al 302). It also allows for more local participation in and control of the process, reflecting the recent international trends towards localism.

¹⁶ *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*, 20, 24.

¹⁷ *Ibid.*, 1.

¹⁸ *Ibid.*, 23.

vulnerable populations, namely children under the age of 5, pregnant women, and the elderly.¹⁹

Prevention of Malnutrition

Malnutrition prevention is made extremely difficult by the variety of issues that can cause the disorder. Garenne et al. compared the burden of malnutrition and deaths resulting from it in two very different populations: Niakhar, Senegal and Bwamanda, Democratic Republic of Congo. They found that the two areas had a similar burden of malnutrition, but the Senegalese population had more fatalities. Furthermore, those deaths that occurred were due to very different causes of malnutrition. This demonstrates the difficulty of trying to attack malnutrition from the policy angle; it is nearly impossible to devise a catch-all policy that addresses all causes of and contributing factors to malnutrition.²⁰ Community-based education and nutrition programs that include promotion of breastfeeding and adequate complementary feeding, hygiene, micronutrient supplementation, treatment of malaria, growth monitoring, and regular deworming have been found to be the most effective in preventing malnutrition from occurring. Indeed, this is one of the few types of interventions to be found effective in prevention.²¹ These medical treatments address many of the comorbid factors of malnutrition, and reduce the likelihood that the problem will occur. Furthermore, they educate on nutrition practices, which have been standardized by medical science.

One problem with preventative medical care is that the smaller organizations which generally undertake it have a lesser area of impact with their limited resources.

¹⁹ Caldwell and Caldwell, "Famine in Africa: A Global Perspective," 373.

²⁰ Garenne et al., "Incidence and Duration of Severe Wasting in Two African Populations," 1976-7.

²¹ Harold Alderman et al., "Effectiveness of a Community-Based Intervention to Improve Nutrition in Young Children in Senegal: A Difference in Difference Analysis," *Public Health Nutrition* 12, no. 05 (2009): 667, 70-1.

Senegal has attempted to address this problem with the Cellule de Lutte contre la Malnutrition (CLM)²², a central governmental organizing body. There are hundreds of NGOs and other aid-providing bodies that operate in Senegal, many of whom work with hunger and malnutrition issues, either explicitly or tangentially. The CLM is able to work with these different organizations to make sure that the priorities of the Senegalese government are being implemented and that the individuals who most need this type of aid are prioritized by private organizations.²³ Preventative care for malnutrition has not yet reached its potential, and more resources will likely be devoted to it in the future as it is generally more cost effective to prevent a disorder from occurring than to treat it once it has occurred.

Complications in the Medical Approach

While it is possible to loosely define the medical approach, and the manifestations that it generally assumes, it is not possible to define the field entirely. There are a wide range of actions that all fall into the category of “medical.” In each of the ensuing case studies and examples, it will be necessary to define that particular organization’s conception of the medical approach and how it affected their actions. While it is easy to lump these approaches together because they use aspects of medicine, it must be emphasized that their specific actions are individually determined and motivated. It is not as if these organizations are bound together in that they are using the “medical approach;” this is simply an attempt to categorize projects based on the tactics that they utilize.

Another common problem with the medical approach is Western bias and, in response, local suspicion of Western initiatives. Until quite recently, medical programs

²² In English, the Malnutrition Fighting Unit

²³ Alderman et al., "Effectiveness of a Community-Based Intervention to Improve Nutrition in Young Children in Senegal: A Difference in Difference Analysis," 668.

had only been undertaken by Westerners, for reasons of expertise that are explored more fully later. The delivery of such interventions is complicated by the fact that medical traditions existed in West Africa prior to the arrival of colonizers from the West. The medical interventions promoted by Western aid workers, even now, are often quite different from traditional medical treatments that have been practiced in these areas for centuries. Thus local people can be hesitant to accept these interventions because they are unfamiliar, and they frequently do not understand the rationale offered for these approaches. The importance of issues of cultural literacy and sensitivity to the success or failure of medical approaches to hunger cannot be overstated.

The Role of the International Community

Senegal became independent from France in April of 1960, and French aid to Senegal began almost immediately. In the 1960s, France was providing aid in the form of investment, technical assistance, and operating subsidies; though it has been reduced over time, French aid is still an important factor in the Senegalese economy.²⁴ France is likely the most prominent example of this, having been the colonial power in Senegal for more than a century, but Senegal relies on developmental aid from many governments and multinational organizations in order to provide for its citizens. In the initial years after independence, most of this external help came from other governments and large multinational organizations, as they were the best equipped, both in terms of expensive and complicated interventions and in overall medical expertise, to provide assistance at the time. What drew these organizations to work in the medical realm of hunger? How

²⁴ Claude Freud, "French Economic Cooperation with Senegal and Cameroon," in *Aid to African Agriculture: Two Decades of Donors' Experience*, ed. Uma Lele (Baltimore: Johns Hopkins University Press, 1991), 390.

did these movements lead to the modern landscape of medical aid? In order to explore this subject, we will examine several case studies of large multinational organizations in Senegal.

Programme de Protection Nutritionnelle et Sanitaire

One of the first major nutrition projects in Senegal was the United States Agency for International Development (USAID)-funded Programme de Protection Nutritionnelle et Sanitaire (PPNS)²⁵, which took place from 1973 to 1988 in rural areas of Senegal. It established 400 centers around the nation which provided pre- and post-natal visits, growth monitoring for young children, and food supplementation. This program was unprecedented in its scope and was later seen as a failure.²⁶ The centers were not targeted to areas with the most need, and so those who could benefit most from the program were often not included. The children targeted by the program rarely consumed more than 10% of the food they were given, as it was shared among the family or sold, and the rations that were given were approximately half the size that they ideally should have been.²⁷

This evidences the importance of cultural competency in aid work. The Westerners who helped to design the project were working under the cultural paradigm of the United States, where children are seen as the most important members of a family, and they are given priority. This is not the case in West Africa, and so the food that was given to the children was often spread among the entire family. This project failed because those who designed it failed to recognize the cultural differences that existed.²⁸ This program exemplifies the approach to hunger work that characterized the early post-

²⁵ In English, the Nutritional and Sanitary Protection Program

²⁶ "Staff Appraisal Report, Republic of Senegal, Community Nutrition Project," (Washington D.C.: World Bank, 1995), 5-6.

²⁷ Ibid., 34.

²⁸ Ibid., 34-5.

independence era. The new focus on local involvement, which came decades after this project had finished, is reflected in a later program, the Senegal Community Nutrition Project.

The Senegal Community Nutrition Project

In 1995, the World Bank entertained, and eventually decided to fund, a proposal from the Senegalese government to undertake a community-based nutrition project in areas of urban poverty throughout Senegal. The World Bank lent US\$18.2 million to the Senegalese government to undertake this groundbreaking project, which was the first non-emergency community-based development project funded by the World Bank.²⁹ Many other organizations and governments also funded the program; the collaboration of different parties in funding this program was surpassed only by the number of programs involved in its execution. The Senegalese government chose a local NGO, L'Agence d'Exécution des Travaux d'Intérêt Public contre le sous-emploi (AGETIP)³⁰, to coordinate the execution of the project. AGETIP, in turn, worked with many different smaller organizations to provide services towards the overall project.³¹

According to the proposal, the program's objectives were to ameliorate the declining nutritional status of the most vulnerable groups living in urban poverty, to provide potable water to these groups, to enhance food security among targeted populations, to demonstrate the feasibility of community nutrition programs, and to demonstrate the efficacy of working with a private agency to affect these changes.³² The Community Nutrition Project (CNP) would achieve these goals with a 3-part program.

²⁹ "Project Agreement between Senegal and the World Bank: Community Nutrition Project," (Washington D.C.: World Bank, 1995).

³⁰ In English, the Public Interest Agency Against Unemployment.

³¹ "Staff Appraisal Report, Republic of Senegal, Community Nutrition Project," 23-4.

³² *Ibid.*, 8.

The first was a nutrition program, which involved education, health services, and food supplementation. The second was a water program, which worked to improve water quality in these areas. Finally, they piloted a rural household food security program, to see if such efforts would be effective in the rural environment as well as in the city.³³

While the nutrition program did offer referral services for the severely malnourished, the majority of the efforts were towards teaching people how to eat properly so as to avoid malnutrition. The program was an experiment in that it was trying to see how successful local workers could be in delivering services to their own populations while maintaining the efficiency that is expected of the private sector. The implications of the program reached far beyond its own impact; it was a test to determine the future of developmental aid in Africa.

The structures of the water and rural food security programs were fairly simple. The water program involved many different actors, all working to improve the infrastructure necessary to provide clean water. Working in the poorest areas of major cities, the CNP laid new pipes and updated other technologies so that adequate amounts of potable water could be provided to the residents. This was a preventative effort, as water-borne illnesses can be comorbid factors and underlying causes of malnutrition.³⁴ The rural food security project was a pilot to see if the tenets and actions of the nutrition program could be translated to a rural, more decentralized environment. This was a critical element to the overall success of the project as a model for later programs, as many people in the developing world live in rural settings.

³³ Ibid., i-ii.

³⁴ Ibid., 14.

The nutrition program was the most intricate of the three components, and had the most potential for dramatic impact on the populations. Its complexity is embodied in one of its goals: to change the behavioral patterns of people in the area relating to the types of food that they ate, especially that of mothers and the way that they breastfed, weaned, and then fed their children. Large-scale behavioral changes are very difficult to achieve, and so the program attacked the problem from several angles. Women brought their children to a local health post weekly for growth monitoring, and they were given food supplements for the children to help ensure that they were getting the correct vitamins and minerals.³⁵ While food supplementation is frowned upon by some, as they believe it does not address the root cause of the problem and masks the food security issues, CNP had a different take on the matter. The food supplements were an educational tool that showed mothers exactly what types of foods should be used to provide adequate nutrition.³⁶ The length of time for which a person could be involved with the program was limited so as to prevent long-term dependence on the food supplements.³⁷ The program also offered referrals to healthcare providers in case of malnutrition or some other illness, helping to identify the problem before it became insurmountable. Finally, it offered money to local providers to do the research and development necessary to produce the food supplements locally.³⁸ The added bonus of this system was that the foods which are used in the nutritional supplements are foods with which the individuals were familiar and that can be grown in-country; the families did not have to purchase imported foods to ensure that their children had adequate nutrition. CNP provided jobs to

³⁵ Ibid., 9.

³⁶ Ibid., 10.

³⁷ Ibid., 11.

³⁸ Ibid., 10.

a wide variety of people, from healthcare professionals to manufacturers, and accomplished the difficult task of helping people who may not have otherwise been reached by government programs.

Unfortunately, CNP was not particularly effective in achieving its goals. A 2006 analysis by Garnter et al. compared outcomes for children in the intervention zone, which was part of CNP, with a control zone that had a similar population. The study found that the rates of wasting and stunting were higher in the CNP zone than the control zone, showing that the program's multivariate approach had no effect on the health of the population, according to these measures. The ineffectiveness of this program complicates the local approach. Involvement of local populations is no guarantee of an effective program. While CNP did improve upon the outcomes of PPNS, it was unable to achieve its own objectives.³⁹

The Community Nutrition Project was designed by the Senegalese government with input from AGETIP, a local NGO which works extensively with other NGOs on smaller projects. In that sense, it was something of a ground-up project, brought from the lower levels of smaller NGOs up to the Senegalese government, and eventually to the funding bodies of the World Bank, the World Food Program, and the German government. The sheer number of governments and organizations involved in this endeavor is staggering, and it was one of the largest-scale efforts ever attempted in Senegal. The involvement of so many local organizations in the project is likely due to the rise of localism and an attempt to keep from replicating the problems of PPNS. CNP was devised to help individuals, and was executed on the local level even though it was

³⁹ A. Gartner et al., "Has the First Implementation Phase of the Community Nutrition Project in Urban Senegal Had an Impact?," *Nutrition* 23, no. 3 (2007): 225.

funded and evaluated on the international level.⁴⁰ This is an example of one way in which large organizations can partake in the new trend of localism. CNP managed to avoid many issues encountered by PPNS by embracing localism and involving local populations in its projects.

The Peace Corps

The Peace Corps is an American service corps which sends American citizens around the world to help deliver developmental aid to rural communities in need. According to an interview with Chris Hedrick, the Peace Corps Senegal Country Director, the program came to Senegal in 1963, soon after Senegal was declared independent.⁴¹ There are five main programs in Senegal: Small Enterprise Development, Agriculture, Agriforestry, Environmental Education, and Health Education. For the purposes of this exploration, the Health Education sector is the most pertinent. The health education volunteer who was interviewed is actually working in Mali rather than Senegal; while Mali is less prosperous than Senegal the rural situations are quite comparable, with many of the same ethnic groups living in both nations. Thus the information about the Peace Corps experience in Mali will be extrapolated to Senegal, with the understanding that the situations may not be exactly the same in the two countries.

Peace Corps volunteers are village-based, meaning that they live in the villages with their constituents, learn the local language, and work to teach local people how to eventually take over the projects themselves. A village generally has 3 Peace Corps Volunteers (PCVs) over a period of six years (two years each), allowing time for the program to make an impact but not staying for so long that the villagers become

⁴⁰ "Project Agreement between Senegal and the World Bank: Community Nutrition Project."

⁴¹ Chris Hedrick, "Interview by Author," (Dakar, Senegal June 22, 2009).

dependent on the aid. The majority of PCVs are recent college graduates, and very few have professional degrees. As such, there were no PCVs in either country with a medical degree. This inherent limitation restricts the program to working on the preventative side of malnutrition rather than the treatment side, usually in the Health Education sector. To combat malnutrition, volunteers work to teach villagers about proper nutrition practices and work to help them find sources for micronutrients in their diets. Thus, their conception of the medical approach is one that deals with prevention on the individual level, by attempting to influence personal behaviors through day-to-day contact with the villagers they are trying to help.

Alyssa Mouton, a PCV working in the Health Education sector, took some time to explain the different aspects of her job and the projects that she has undertaken in the past year.⁴² One of her main goals as a PCV was to develop a health committee that would help formulate and undertake projects related to health priorities for the village. While the committee began to work on its first priority, the promotion of hand-washing, she began other programs on her own initiative. One such program was related to education about childhood nutrition. Most mothers in rural West Africa breastfeed for as long as possible, as they believe that this will protect them from becoming pregnant again. It is not uncommon to see a woman breastfeeding a two-year-old, even though children of this age cannot get all of the nutrients they need from breastmilk.⁴³ Once they do transition to complementary feeding, Alyssa noticed that they often start the children on porridge, which has very low levels of micronutrients. She began a campaign within the village to encourage mothers to stir in some crushed beans or peanuts, foodstuffs grown by the

⁴² Alyssa Mouton, "Interview by Author," (Tubani So, Mali August 5, 2009).

⁴³ These include vitamins, proteins, iron, calcium, potassium, and other nutrients necessary for proper mental and physical development; they are sometimes referred to as micronutrients.

villagers, in order to give the porridge a higher nutrient content. Once the women in the village learned of the importance of this supplementation for the health of their children, they began to do demonstrations for others on their own, rather than relying on Alyssa for help.⁴⁴

In a rather different vein, Alyssa has been working to plant Moringa trees in the village. The leaves of this versatile tree are incredibly nutritious, providing calcium, iron, vitamins A and C, protein, and potassium. West Africans often use tree leaves in their cooking, especially those of the baobab tree, so Moringa leaves can be easily incorporated into the local cuisine. By planting these trees and teaching her constituents how to use the leaves in cooking, she hopes to reduce micronutrient deficiency in the children of her village and encourage people to think more regularly about nutrition issues. This cross-sectoral project witnesses to the variety of actions which can be undertaken to improve health, all under the umbrella of malnutrition prevention and nutrition education.⁴⁵

The Peace Corps is unique in the realm of aid providers because of the amount of autonomy that individual volunteers have in the types of projects that they undertake. By living in the villages, they are able to see exactly what the community needs are and design programs and projects accordingly. This underscores the local involvement inherent in the structure of the Peace Corps, which allows for a personal focus within a large multinational organization. It is interesting, then, that so many volunteers undertake similar types of programs within their villages. The challenges faced in the different villages are likely quite similar to those faced all over West Africa: each year the hungry

⁴⁴ Mouton, "Interview by Author."

⁴⁵ Ibid.

season lasts from June to September, as the food stores from the previous year have run out before the next harvest occurs.⁴⁶ The timing of this season is particularly difficult; it occurs when the most energy is being expended as the farmers are tending to their fields. The PCVs undertake educational programs related to micronutrient deficiency because they are confronted with the reality of hunger every day. They see the effects of malnutrition on the children in their villages, and so they are inspired to create programs that will alleviate these problems in the long term. It is the daily personal contact with the villagers that causes the PCVs to consider the individual issues and local involvement rather than the population-wide issues. Though the Peace Corps is a large multinational provider of developmental aid, on the ground it resembles a small local NGO. The ideas are coming from the community itself and are in response to the community's pressing needs rather than the implementation of a blanket program that was developed without any local input. For this reason, the recent trend of localism has strengthened the Peace Corps' programs.

Local Efforts as a Bridge between International Actors and Local People

We have explored several different examples of the involvement of large multinational or international actors in community-based, medically-oriented projects. It may seem surprising that so many large actors are involved in such local-level endeavors, especially given the argument for the importance of local input. These examples highlight the recent trend of undertaking these types of projects in partnership with a smaller organization that has such experience. It is hard for large multinational organizations to achieve such local familiarity without the mobilization of large numbers of people who work in a very restricted area, as we see with the example of the Peace Corps. The

⁴⁶ "Staff Appraisal Report, Republic of Senegal, Community Nutrition Project," 3.

Community Nutrition Project took a different approach, involving three tiers of actors to get the necessary funding but also to provide services in a way that would assist the population most effectively. This is one way that the personalized medical approach is undertaken, but it is not the only option. Many small local organizations attempt such projects on their own, without the large-scale support of major international actors. Next, we will examine this approach and see how it compares to the larger organizations within the context of the medical approach.

The Rise of Local Organizations

While Western-based organizations have dominated medical aid for most of history, the past decade has seen an increase in the number of locally-created organizations working to promote health. The legacy of the empowerment of local populations to care for their own health is a long and complex one, wrought with the difficulties of the colonial relationship and the complications of independence. In the colonial era, indigenous practices were discouraged, and native populations were only allowed to become midwives or assistants. While there are some examples of Africans being trained to be physicians in this era (the indigenous colonial physicians in Madagascar and the British-trained physicians in Sierra Leone) it was uncommon.⁴⁷ Post-independence, the Western presence remained, and many colonizers sent physicians to serve the newly-independent states. France, for example, sent thousands of aid personnel to Senegal in the decades following independence, not reducing the number until the

⁴⁷ Adell Patton, *Physicians, Colonial Racism, and Diaspora in West Africa* (Gainesville: University Press of Florida, 1996), 46.

1980s.⁴⁸ Senegal was dependent on France for medical aid until they were able to create the infrastructure to train their own physicians and build up the healthcare system. To explore these issues, we will first delve into the history of colonial medicine and the role that non-professional indigenous people played in medical care. Another case study will follow, this time of a small local organization, Animatrices de Santé, which is representative of a new trend in the medical approach to malnutrition, hunger, and famine.

The Role of Non-Professionals

The difficulties of serving the entire rural population of the developing world did not begin in the post-colonial era. Medical care requires very specific expertise, and it is difficult to impart the necessary skills without a formal training center. Therefore, many colonizers attempted to incentivize the serving of the underserved, offering special status to those physicians who would venture into the bush and offer medical care to the poorest populations. Rural populations often had the highest burden of disease in the nation, as they did not have access to the basic infrastructure that those in the cities enjoyed. When the burden became too high for colonial physicians to manage, they would train locals in the very basics of medical care to help them out in their work. Nurses, midwives, indigenous medical assistants, and later indigenous colonial physicians were trained in order to reduce the burden of providing healthcare that weighed heavily on the colonizers.⁴⁹ Post independence, colonial powers often sent medical aid to their former colonies, but this aid was not nearly enough to fill the gap. Eventually, developing nations had to train their own people to provide medical care throughout the country. Not

⁴⁸ Freud, "French Economic Cooperation with Senegal and Cameroon," 398.

⁴⁹ Francis B. Sayre, "The Problem of Underdeveloped Areas in Asia and Africa," *Proceedings of the American Academy of Arts and Sciences* 81, no. 6 (1952): 293.

all of these people were fully-trained physicians; some received more basic training in order to fill gaps in the provision of services.⁵⁰

The idea of people with minimal training caring for the sick remains an important one in the developing world. Caregiving is rarely undertaken by doctors, but instead nurses or nurses aides. One part-time doctor, if adequately supported by nurses and nurses' aides, can care for 50-100 malnourished patients.⁵¹ Especially in the case of hunger and malnutrition, the doctor's expertise is often not necessary. The most important aspect of care for a malnourished person is constant attentiveness to his needs. A doctor rarely has the time to sit and care for a patient, his time is perceived as too valuable to spend on such things. Instead, he should be caring for other patients and healing the greatest possible number of people. The nurse or nurse's aide plays a primary role. While the legacy of the colonial medical service likely contributes to this attitude, it is one that it is also found in the developed world, and so it cannot be solely attributed to colonialism. The following case study provides an excellent example of nurses and laypeople taking the care of the sick and preventative medicine into their own hands.

⁵⁰ An interesting case of a developing nation's response to the healthcare crisis is the Chinese Barefoot Doctor program. China had struggled to provide healthcare to citizens throughout its expansive land. They, too, attempted to provide incentives for doctors to work in rural areas, creating the Rural Medical Service Corps, but such programs were largely unsuccessful. Indeed, in 1964, the government was spending more money on healthcare for 8.3 million urban residents than they were spending for the 500 million rural peasants that they were also ostensibly responsible for. (Daqing Zhang and Paul U. Unschuld, "China's Barefoot Doctor: Past, Present, and Future," *The Lancet* 372, no. 9653 (2008): 1865.) The Barefoot Doctors program began in 1968 in response to this crisis. People who had completed at least secondary education and were of the correct political status were given basic training for several months in a local hospital and then dispatched to rural areas to provide basic medical care. Through this system, rural populations were able to receive quality medical care at a fraction of the price incurred by sending fully trained doctors. This program provided primary healthcare and referral services to those who had never had any medical care. (Zhang and Unschuld 1865-6). The Chinese government was acutely aware of the shortage of professionals, so they changed the standard. While there are criticisms of the program as perpetuating class differences between the urban and rural residents, it solved the fundamental issue of providing healthcare to those who had had no access to it in the past. The West African colonial program of indigenous medical assistants used a very similar idea, training people in the very basic skills necessary to provide medical care without sending them through a formal medical school.

⁵¹ *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*, 15.

Animatrices de Santé

Formed by a group of women in the small town of Kedougou, Senegal, Animatrices de Santé⁵² is dedicated to informing rural populations about different health-related issues. They are best known for their work in malaria prevention, but perform *sensibilisations*, or presentations to build awareness around a particular topic, on issues as diverse as HIV/AIDS, maternal and child health, female genital mutilation, and malnutrition. One of the founding members, Binta Diallo, explained the structure and purpose of the organization.⁵³ The group is made up of women in many different professions; some are nurses, but others are drawn from a variety of backgrounds and occupations. The program began in 1986 in response to a growing sense of need for health information, specifically related to family health and wellness. To these women, the medical approach entails education about services that are already available through other sectors. When people are aware of the resources, and understand how they work, they are more likely to use those and other services in the future. Mme. Diallo is a nurse at the local state-sponsored hospital and made arrangements with the rural Postes de Santé⁵⁴ to travel to villages that hadn't been touched by NGO activity and teach them, through the skits and role-plays that are characteristic of *sensibilisations*, about health-related issues that they may have never learned about. Initially, the programs were only for women, as a way of building community and communicating directly with the people who were the caregivers for the family. In time, they learned that this was less effective than presenting to everyone, as men often didn't believe things that their wives told them

⁵² In English, "Facilitators of Health."

⁵³ Binta Diallo, "Interview by Author," (Kedougou, Senegal August 21, 2009).

⁵⁴ In English, "health posts"

without outside verification. By giving all people equal information, they could avoid such problems.⁵⁵

The organization's main activity is providing *sensibilisations*, but this is not their only function. Because many of the women are health professionals, they are able to identify health problems in the children of the villages when they see them. Mme. Diallo spoke specifically about a young boy in a remote village that they had visited who was completely malnourished. His weakened frame couldn't support his body, and he lay on a mat in his house. They were able to transport him to the local hospital, where they administered the treatments to nurse him back to health. While Mme. Diallo didn't mention any WHO guidelines, she was well-versed in the necessary steps towards rehabilitation. First, they started him on liquids and very thin porridges. He could hardly eat, but they gave him as much as he would take every day. Once he was more active and aware of his surroundings, they started giving him soft fruits like bananas. Eventually he was able to work his way back up to a normal diet and recovered fully. While this treatment was perhaps not so precise as the guidelines set by WHO, it followed the main principles as defined by WHO and was ultimately successful in rehabilitating the child. Moreover, a child in such a rural area likely would not have been taken to see a doctor at all had the women not traveled to his village, underscoring the importance of organizations in which individuals are willing to travel outside the normal realm of healthcare venues.⁵⁶

The women of Animatrices de Santé are well respected throughout the community, and are second to none when it comes to their presentations. One PCV who

⁵⁵ Diallo, "Interview by Author."

⁵⁶ Ibid.

had had the women come to his village to present on HIV/AIDS spoke highly of their talents and called them “a true gender and development success story.”⁵⁷ The creation of such a program by a group of nurses is interesting in the context of systems of care for those suffering from malnutrition. Rehabilitating a malnourished individual takes time, patience, and dedication. Mme. Diallo explained that it took several weeks to fully rehabilitate the malnourished child, but never implied that it had been unreasonable or taxing on her time. Of course, doctors play an important role in the formal healthcare sector, and the government would be doing a disservice to its people if it did not provide doctors for their healthcare. But health professionals who are not doctors, and even laypeople, can also provide caregiving services.

The role filled by the women of Animatrices de Santé is quite different from that played by the large multinational organizations discussed earlier. It is only in the past few decades that such an organization would even be possible in the developing world. Their familiarity with the problem and the society is what other groups mimic; the Peace Corps attempts to create awareness of local issues by housing its volunteers in the villages. This is a step in the right direction, but it cannot replicate the lifetime of experience that some have accrued. Similarly, the Community Nutrition Project was planned by higher-up officials but executed by local people. Animatrices de Santé was devised, formulated, and executed by the same people: the women who had lived in the region their entire lives, saw a problem, and wanted to do what they could to solve it. Their unique perspective allowed them to devise a program that was quite different from existing programs, and was completely local in its implementation.

⁵⁷ Matt McLaughlin, "Interview by Author," (Kedougou, Senegal August 21, 2009).

There is a long and distinguished history of healthcare being given by people other than doctors. From the indigenous medical assistants and barefoot doctors to modern day nurses and midwives, rural people have often relied on non-physician medical professionals and laypeople to care for them. One outcome of this tradition is the small medically-based NGOs that have arisen in the last few decades, as exemplified by Animatrices de Santé. These organizations have evolved from people's personal belief that they can make a change in their situation and help ameliorate the conditions of those around them. This sentiment and encouragement simply did not exist before the age of localism. Support from the aid community and from the governmental structures has allowed this program to flourish despite its humble beginnings.

Conclusion

The complex and multifaceted nature of hunger and famine necessitates multiple approaches, and the medical approach will always be a part of the response to hunger. The medical consequences of malnutrition are undeniable, and medical expertise will always be necessary to help those who are suffering the physical consequences of low income and socioeconomic inequality. While the preventative arm of the medical approach does try to address the immediate causes of malnutrition, it does not deal with the root causes that lead populations to become malnourished, such as climate change, soil exhaustion, poverty, and poor infrastructure. It does, however, teach people how to compensate for the things that are missing in their diets and lifestyles.

The medical approach to hunger is in its very nature a personal one, and it requires personal attention and care. It follows naturally, then, that local people have

become more involved in the implementation of such interventions. They know the culture, the problems, and often the individuals who are the most vulnerable to the ravages of hunger and famine. Animatrices de Santé is a perfect example of an organization of local people who have capitalized on their familiarity with the situation in order to make a change. They have the abilities and resources that other programs, planned and funded by large multinational organizations, are attempting to harness when they work in the field. The Community Nutrition Project and the Peace Corps Health Education Program both try to implement large medically-based programs to combat malnutrition by using local personnel to assist in the process. In this way, they are much like the small organizations who fit the medical approach so well. This is a dramatic change from PPNS, which had little local involvement. The personal nature of the medical approach to hunger, famine, and malnutrition makes it an ideal approach to use for many small local organizations, and large organizations must co-opt this familiarity when attempting to implement medical interventions.

CHAPTER 2

THE AGRICULTURAL APPROACH TO HUNGER

Many countries worldwide have struggled to feed their citizens as medical advances have allowed more children to survive infancy, leading to large increases in population. This has made it more difficult for developing nations to sustain their people. Sub-Saharan Africa actually saw a decline in food production during the decades following independence, which, when combined with the population increase, caused a veritable food crisis in many nations.¹ All West African countries have experienced population explosions since independence in the 1960s, but it has been extraordinarily pronounced in Senegal; the country has had a cumulative 2.7% rate of population growth over the past few decades.² This led to a long-term decline in per capita food production for the nation. Relative stability in Senegal led to a large influx of refugees as the surrounding nations were plunged into decades of brutal warfare.³ Shifts in population also occurred as a result of tribal rather than national allegiances. The colonial lines drawn by the European powers did not respect the tribal and ethnic lines that already existed; many people moved to be with those of their tribal or ethnic group rather than respecting the political boundaries. Because Senegal has been so politically stable in recent years, it has attracted many immigrants from the surrounding area.

West Africa has also disproportionately experienced the negative effects of climate change. This region has a climate known as Sahel that is not seen elsewhere in the world. The unique climate comes from the region's proximity to the Sahara desert,

¹ Caldwell and Caldwell, "Famine in Africa: A Global Perspective," 381.

² Downing, *Climate Change and Vulnerable Places: Global Food Security and Country Studies in Zimbabwe, Kenya, Senegal and Chile*, 26.

³ Bigman, *History and Hunger in West Africa: Food Production and Entitlement in Guinea-Bissau and Cape Verde*, 62.

which lies directly to the north. The semi-arid climate makes the Sahel region especially vulnerable to global warming and the associated changes in rainfall patterns. Agriculture is incredibly prevalent in West Africa; 70% of the Senegalese workforce is engaged in agriculture.⁴ There remains, however, a 15% deficit in the amount of food produced when compared with the demand within rural regions; this does not take into account the demand created by urban populations not involved in food production.⁵ Senegal's agricultural policy, as set by the national government, admits the impossibility of feeding urban populations from the food produced by rural farmers, and assumes that they will eat imported food.⁶ Indeed, in the year 2000, Senegal imported 47.3% of its food though it likely would have the capacity to meet its own food needs if it were to maximize the food production within its most fertile regions.⁷ One scholar estimates that as much as 20% of Senegal's entire import budget is for food.⁸ Senegal does not have an ideal climate for food production; its proximity to the Sahara desert leads to extremely low rainfall. Rural farmers often depend on rain-fed crops more than irrigation, and so any changes in the climate can cause drastic changes in the agricultural production.⁹ Climate change and the associated uncertainty have already begun to wreak havoc on the Sahel region of Africa, and this problem will only become more severe as the problem continues.

⁴ Downing, *Climate Change and Vulnerable Places: Global Food Security and Country Studies in Zimbabwe, Kenya, Senegal and Chile*, 26.

⁵ *Ibid.*, 28.

⁶ Freud, "French Economic Cooperation with Senegal and Cameroon," 398.

⁷ "Senegal Country Profile," ed. Earth Trends Inc. (World Resources Institute, 2003), 2.; Downing, *Climate Change and Vulnerable Places: Global Food Security and Country Studies in Zimbabwe, Kenya, Senegal and Chile*, 30.

⁸ Bigman, *History and Hunger in West Africa: Food Production and Entitlement in Guinea-Bissau and Cape Verde*, xi.

⁹ Freud, "French Economic Cooperation with Senegal and Cameroon," 394.

Technological improvements have changed the face of agriculture worldwide. Developed nations have reaped the benefits of technological advances in agriculture, while impoverished nations are often unable to profit from these developments.¹⁰ Techniques in crop improvement, crop protection, sustainable farming, and mechanization all play important roles in farming in the industrialized world, from complex methods like nanotechnology and improved seed to more commonplace practices like pesticides and fertilizers.¹¹ This has led to an increasing gap in agricultural production between the world's richest and poorest countries, and has made the developing world more dependent on the developed world for its nutritional needs. At the same time, there has been increased attention on agriculture in the developing world; in the past few decades many organizations have shifted their developmental aid focus towards agriculture. Some have criticized this approach, saying that new technologies have not been particularly effective in improving crop yields in resource-poor settings.¹²

The prevalence of the agricultural approach to hunger has been affected by the impact of climate change on slash and burn agriculture and the advances in technology which have allowed developed nations to increase their production relative to developing nations. Furthermore, the increasing focus on local involvement lends itself to agricultural work; agricultural aid generally involves personal interaction with an individual farmer rather than broader, population-based programs. Because the agricultural approach is so amenable to local participation, it has become much more common in the past decade, and many new programs are agricultural in nature.

¹⁰ John Beddington, "Food Security: Contributions from Science to a New and Greener Revolution," in *Philosophical Transactions: Biological Sciences*, 65.

¹¹ *Ibid.*, 66-8.

¹² Freud, "French Economic Cooperation with Senegal and Cameroon," 394-5.

To understand the dynamics of the agricultural approach to hunger, we must first define what characterizes this approach, namely implementing improved farming techniques and utilizing new technology. Next we will explore French interventionism in Senegal in the immediate post-colonial years, focusing on the operations in the village of Kunjani in the Senegal River Valley in the 1970s and 80s. This represents the early approach to agricultural aid, which entailed mostly the utilization of new technology. Finally, more recent interventions will be investigated, with a focus on the work of the Peace Corps Agricultural Sector and USAID-sponsored Wula Nafaa. Their use of new farming practices exemplifies the shift to methods-based aid that occurred in later years. Local involvement is more possible with such programs, and so this particular manifestation of the agricultural approach has gained momentum with the advent of localism.

Characteristics of the Agricultural Approach

For many, the agricultural approach is characterized by the infamous Green Revolution. Headed by acclaimed plant scientist Norman Borlaug, this movement focused on the importance of new technological advances in the fight against hunger. It led to extreme crop yield increases beginning in the 1960s, and many believed that endemic hunger could be eradicated through these methods.¹³ By encouraging the use of irrigation, fertilizers, and pesticides, Borlaug undoubtedly helped save thousands from starvation worldwide. The ecological side-effects of his techniques are only now being discovered, however. Pesticides and fertilizers have caused significant environmental damage in areas of intense use. The Green Revolution has been taken over by the

¹³ Lupe Chavez, "Feeding the World," *Agricultural Research* 50, no. 2 (2002): 12.

environmental movement, and environmental sustainability has become important in addition to developmental sustainability.¹⁴ In order to better understand the modern definition of agricultural aid, the specific details of different types of aid will be examined so as to better understand which approaches characterize agricultural intervention.

The field of agricultural aid encompasses a variety of interventions, from diversification of crops to mechanization of farming techniques. Because of the vast number of organizations involved in agricultural aid, and the diversity of approaches taken, it is difficult to define one holistic agricultural approach to the prevention and treatment of hunger. There are, however, categories into which most types of interventions could be grouped. In this study, those categories will be defined as implementing improved farming techniques and utilizing new technologies. Interventions that fall into the former category are often local in nature, while those in the latter category are less likely to involve local participation. The interventions undertaken by most organizations do not always fall neatly into one of these categories; instead most institutions provide a range of services that they feel best addresses the problem.

Implementing Improved Farming Techniques

The developed nations of the West have progressed further in agriculture than those of Sub-Saharan Africa have managed to do, leading some to assert that African nations are intrinsically inferior to their Western counterparts. While such theories have lost credence in the latter part of the 20th century, there are those who believe that African nations will never catch up with the West in terms of development without significant external aid. Bigman addresses this assertion head-on in her book *History and Hunger*;

¹⁴ "The Passing of the Green Revolution," *America* 2009, 4.

she believes that the slave trade imposed upon Africans as the colonial age began led to social disintegration among African populations. This disrupted trade and agriculture, as people were afraid of one another and developed insular communities.¹⁵ Though the slave trade was abolished in the 19th century, European colonizers continued to disrupt the agricultural maturation of African society by imposing cash crop production at the expense of staple crops. In Senegal, for example, groundnuts (peanuts) were introduced as the cash crop and were imposed as a way to involve Africa in the global economy, though groundnut production was incredibly harmful to the nutrient content of the soil and led to large-scale erosion.¹⁶ Furthermore, many West African farmers still use slash and burn farming techniques, which are not particularly sustainable over long periods of time.¹⁷

Because of these factors, the West has developed agricultural techniques that are more efficient and lead to higher yields. The improved techniques do not require extra equipment or technology, but instead rely on changes to farming practices that have been proven by agricultural sciences. While technology has been necessary in the creation of these techniques, technology is not necessary to implement these practices. One example is the development of short-cycle crop varieties. Such crops have been helpful in the avoidance of famine in times of drought in West Africa.¹⁸ Because the plants are ready to harvest in a shorter period of time, less water is necessary to produce the crops. This approach to agricultural aid requires a smaller monetary investment and is seen by many

¹⁵ Bigman, *History and Hunger in West Africa: Food Production and Entitlement in Guinea-Bissau and Cape Verde*, 22.

¹⁶ *Ibid.*, 29.

¹⁷ Hans Spalholz, "Site Visit by Author," (Saare Gagna, Senegal July 11-12 2009).

¹⁸ Mellor and Gavian, "Famine: Causes, Prevention, and Relief," 543.

as a more sustainable system to teach to rural farmers than those which involve high yearly costs.

Utilizing New Technology

While some new techniques do not involve technological advances, many of them do. Technological aids include the more obvious interventions of fertilizer and pesticides, but are not limited to these tools. Many organizations focus on irrigation methods involving water pumps and other technological advances, which can produce much higher crop yields than when farmers rely on rain-fed crops alone. Technological aid is not without its complications; there are high start-up costs associated with using modern machinery and technologies. It is likely for this reason that many recent attempts at providing agricultural aid have shied away from complex technological interventions, instead focusing on sustainable practice, both in terms of the environment and of the ability of local people to continue the practices after the aid workers have left. Many organizations do promote the use of fertilizers and pesticides, as these supplements can have an incredible effect on crop yield. Overall, however, the use of technological interventions has waned in the last few decades as the issue of sustainability has become important and organizations create plans to encourage local participation and allow developmental improvements to continue even when they have left the area.

International Aid in the Post-Independence Years

Immediately following Senegal's independence, the majority of its developmental aid came from the government of France, the former colonial power. The aid was of two types: direct financial assistance in the form of grants or loans and technical assistance

from experts in developmental fields.¹⁹ Both parts were important in developing infrastructure as Senegal attempted cohesive self-rule for the first time. While some external organizations were operating in Senegal at the time, most were funded by or somehow affiliated with the French government. By examining the role of the French government in Senegalese agriculture, we can understand the interactions between developmental aid providers and the Senegalese people in general. First, we will look into the way that the French government interacted with the Senegalese government and people in the post-independence years in all areas. Then, we will look at a case study of the village of Kunjani, in the northeastern region of Senegal. In this particular village, a motivated leader named Jaabe So documented the interactions that occurred between his village and French and Senegalese development agencies, particularly in the field of agriculture. This case study will clarify the way that aid worked in the early years of Senegal's nationhood.

French Interventionism in Senegal

France, as the former colonial power in West Africa, was heavily involved (both directly and indirectly) in the development programs that were implemented in Senegal in the 1960s and 70s. In the 1960s, France invested heavily in Senegalese development, with 25% in investments (direct monetary aid), 60% in technical assistance (sending experts to assist in development projects) and 15% operating subsidies (money funded directly for specific projects).²⁰ Aid to Senegal peaked in 1985, when 700 million French francs worth of aid (in all three sectors) was provided in order to help Senegal cope with the structural adjustment programs that were mandated by the International Monetary

¹⁹ Freud, "French Economic Cooperation with Senegal and Cameroon," 392.

²⁰ *Ibid.*, 390.

Fund (IMF), an important source of funding for developing countries.²¹ Structural adjustment policies were implemented by the Senegalese government as Nouvelle Politique Agricole,²² which called for the reorganization of rural life, government withdrawal from certain sectors, and growth of the private sector.²³ Though there are many complex regulations related to structural adjustment, one important aspect relates directly to the agricultural policies of the nation. The World Bank (an institution that works closely with the IMF) recommended a strategy of “export-led growth” for West Africa to accompany the open-market policies of structural adjustment.²⁴ This approach was an extension of the colonial policies which encouraged farmers to grow cash crops such as groundnuts in lieu of subsistence farming. The French government supported structural adjustment by helping the Senegalese create governmental policies which aligned with the mandates of the IMF and the World Bank. Agricultural interventions, then, have been incorporated into the larger goal of integrating developing countries into the global economy. While this policy aligned with the structural adjustment policy of helping developing nations to enter into the global economy, it was not economically sustainable for the farmers who were forced into such practices.

In the mid-1980s, France became less involved in the provision of developmental aid. French aid to Senegal peaked in the 1980s and has declined since that point. By 1989, France had cut the number of aid personnel to half of what it had been at the beginning of the decade.²⁵ Furthermore, monetary aid shifted away from grants and

²¹ Ibid., 392.

²² In English, New Agricultural Policy

²³ Freud, "French Economic Cooperation with Senegal and Cameroon," 400.

²⁴ Bigman, *History and Hunger in West Africa: Food Production and Entitlement in Guinea-Bissau and Cape Verde*, 10.

²⁵ Freud, "French Economic Cooperation with Senegal and Cameroon," 392.

toward loans.²⁶ The homogeneity of the French aid system, which dominated aid in Senegal in the years following independence, makes it easy to generalize about the aid climate during this era; the recent diversification of the field has made this more difficult. In order to further explore the post-independence period, we will examine a case study of the village of Kunjani, which got substantial attention from French-sponsored aid organizations. This village's experience with the governmental development agencies in the area exemplifies the top-down nature of development work during this era. The story of Kunjani is not the universal story of rural Senegal, but it does explore some of the complications of the approach to developmental aid utilized in Senegal's early years.

Agricultural Aid in the Village of Kunjani

Kunjani, Senegal, is a small village in the eastern part of the country, near the convergence of Senegal, Mali, and Mauritania in the Senegal River Valley. In their book *A Claim to Land by the River*, Adrian Adams and Jaabe So track the history of the families of the village, from the pre-colonial era to modern times. The story of Kunjani is an interesting one because of Jaabe So himself. So, like many of his peers, moved to the city to find work. As he explained, "The only reason we left here was to seek our fortunes; to earn money, but always, in the end, come home again. And whoever returns home must farm. It is farming that makes life good here."²⁷ Having found a job fighting for France in the military during his youth, So lived in Paris and other parts of France for many years. Though he had grown used to the modern lifestyle afforded by the developed world, he felt the need to return to his hometown to bring the modernity that he had experienced abroad to his family and friends. When he decided to return to his native

²⁶ Ibid., 390.

²⁷ Adrian Adams and Jaabe So, *A Claim to Land by the River: Rural Development in Senegal, 1720-1994* (Oxford; New York: Oxford University Press, 1996), 57.

village, So tried to bring back the technologies that he had seen in Europe, specifically a water pump to help irrigate crops that cannot be watered by rainfall alone. He brought the first pump back in 1973.²⁸

The Senegal River Valley is particularly susceptible to variations in rainfall patterns; droughts occur regularly in the region due to its proximity to the Sahara. A 1913 drought led to a famine which caused many in the village of Kunjani to sell all of their possessions in order to purchase enough food to feed their families.²⁹ In times of famine such as this, the issue is not just the failure of a family's own crops, but that the prices of food in the region soar due to scarcity, and many cannot afford supplemental food.³⁰ Climactic conditions continued to shape the character of the village throughout the 20th century. Drought characterized the 1960s; the difficult weather patterns led many of the younger generation to abandon farming entirely, moving to Dakar or France to find a job in order to send money home to their families so that they wouldn't starve.³¹ Economists studying the area have determined that it would be impossible to achieve food security in the Senegal River Valley without remittances from family members who have emigrated either to major cities in Senegal or to other countries.³² It is for this reason that many organizations saw technological improvements, such as fertilizer and animal traction, as a necessary part of agricultural development, as it could offset the decreases in manpower that occurred due to migration into the cities.³³ While this new custom has made it possible for rural life to continue, where it otherwise may have disappeared entirely, it

²⁸ Ibid., 114.

²⁹ Ibid., 38.

³⁰ Mellor and Gavian, "Famine: Causes, Prevention, and Relief," 540.

³¹ Adams and So, *A Claim to Land by the River: Rural Development in Senegal, 1720-1994*, 103.

³² Freud, "French Economic Cooperation with Senegal and Cameroon," 396.

³³ Ibid., 395.

has changed the rural village from its traditional character. The lack of young people in the village, even if they eventually return, puts a larger burden of farming work on the older generation and interrupts the traditional rural way of life in Senegalese farming villages.

Government-sponsored development organizations such as Société d'Aménagement et d'Exploitation des Terres du Delta du Fleuve Senegal (SAED)³⁴ and Compagnie Internationale de Développement Rural (CIDR)³⁵ began programs in the region, trying to use modern technology to improve crop yields and agricultural outputs. The 1970s were a time of considerable aid activity in this region, due to a drought in 1972 that led to total crop failure in the region.³⁶ The Senegal River Valley had the most need at the time, and it was sensible for development organizations to work in this area. This may not, however, be the whole story. Organizations must be conscious of funding and the ways that they can get more money to continue and expand their work. It is possible that organizations saw the Senegal River Valley as a region where they could achieve maximum outputs with minimal inputs; the region was so far behind to begin with that even advancing it to a stage where it was competitive with neighboring regions was considered significant progress. Such development strategies had already been implemented elsewhere, and thus were more successful than novel, untested development strategies.

Irrigable land was incredibly valuable to rural families, explaining why so many villages were located on riverbanks. When the French attempted to take land from rural

³⁴ In English the Senegalese River Valley National Development Agency

³⁵ In English the International Organization for Rural Development

³⁶ Adrian Adams, "The Senegal River Valley: What Kind of Change?," *Review of African Political Economy*, no. 10 (1977): 42.

farmers in the early 20th century, they defended their irrigable land most fiercely.³⁷ The Senegalese government later recognized the importance of irrigation in agricultural self-sufficiency and supported the cultivation of rice (a staple grain in the Senegalese diet) by financially supporting the development of irrigated perimeters.³⁸ Of course, the Senegalese government was not working in isolation on this issue. The French government supported their initiatives and provided the funding and expertise necessary to undertake such programs, especially after the 1972 drought. This event caused many western countries to choose the Senegal River Valley a priority area for intervention in the 1970s.³⁹

The village of Kunjani had already begun its own program, setting up a farmer's collective with Jaabe So at its head.⁴⁰ Through this collective, known as the Federation, and So's connections from France, they attempted to bring technicians and water pumps to Kunjani to create irrigation systems. The villagers used to cultivate irrigated crops on the land flooded by the river, but this system fell victim to climactic change. Upon attempting to bring the experts and technology to his village, Jaabe So learned that all development projects in the region must first go through the regional development agency, SAED. One of the major projects that SAED undertook, as part of its mandate from the Senegalese government, was the promotion of rice cultivation by lending fertilizer, improved seed, and machinery such as water pumps. They also helped with the work, but for a relatively high fee.⁴¹ The ethos of development at the time stipulated that

³⁷ Adams and So, *A Claim to Land by the River: Rural Development in Senegal, 1720-1994*, 38.

³⁸ "Staff Appraisal Report, Republic of Senegal, Community Nutrition Project," 5.

³⁹ Interestingly, Harvard University undergraduates undertook a major fundraising effort for the region during this time, attesting to the newfound power of the media in disseminating information on events taking place around the world.

⁴⁰ Adams and So, *A Claim to Land by the River: Rural Development in Senegal, 1720-1994*, 108-18.

⁴¹ *Ibid.*, 107.

nothing should be given away for free, and that individuals should pay, even a nominal amount, for the items and services they were provided. This way, as the philosophy goes, people would value those items and would care for them more than if they had been given for free. This Western, capitalist assumption did not translate well to the rural Senegalese context. Most families were unable to sell enough of the grain to make money to pay back SAED, instead having to eat the rice and falling further and further into debt each year.

This development plan ultimately failed in Kunjani. The villagers had no faith in SAED; they believed they could do what SAED did but at lower cost and with less complication. They assumed that SAED did not have the people's best interests at heart and mistrusted anyone involved with the governmental development agency.⁴² Kunjani eventually got their water pumps and technological experts, but had to procure them through SAED programs. The individuals brought in to help with the pumps were seen as unreliable, and did not provide the technical support that was needed when pumps broke down. Indeed, in the season of 1982-3, the crops of the people of Kunjani all went bad due to conflicts and infighting between different development agencies about who was allowed to help in the area.⁴³ The most common failure of the system was the breaking down of the water pumps. Had the villagers been taught to service the water pumps, for example, they wouldn't have needed the help of the experts. As one villager noted, "For most people, 'I'm going to help you' means 'I'm going to put money in your pocket.' Whereas Jaabe said 'I'm going to help you learn.'"⁴⁴

⁴² Ibid., 126-8.

⁴³ Ibid., 183.

⁴⁴ Ibid., 118.

That is not to say that no new strategies were attempted in the Senegal River Valley. Many organizations, often sponsored by foreign governments, came in to provide aid. In addition to SAED and CIDR, the United States-sponsored USAID funded development programs. The reaction in the village of Kunjani was similar to that which had occurred with other organizations. One farmer commented, "...some Americans came to Kunjani. They said they wanted to help us farmers. I said 'On what conditions?' They said no conditions; they just wanted to give us things. They gave us 14 million CFA [Senegalese currency]."⁴⁵ Like many organizations, USAID endeavored to solve the problems of the Senegal River Valley by simply giving them money for new technological fixes, providing relief aid rather than developmental aid.

USAID was criticized for not becoming involved in the aid provision process. By providing money to the farmers with no guidelines on how it was to be used or what development techniques would be the most likely to be successful, USAID effectively removed itself from the development process once the money was given. Through the work in the Senegal River Valley, development agencies learned about different aspects of the work and were able to come to more firm conclusions about the process of development. In its project review of the Bakel Area Small Irrigated Perimeters Project (which included the installation of water pumps and support for irrigation), USAID wrote, "The basic truth, treated by students of development for at least 30 years, is that all successful development must be coordinated with and based on the perceived needs and aspirations of the participants. The participants must be included in planning the

⁴⁵ Ibid., 120.

development process.”⁴⁶ They understood the importance of participant input in their projects, and began to change their programmatic structures to fit this new realization.

The early years of the Senegalese nation were fraught with problems. The 1972 food crisis in the Senegal River Valley brought considerable attention from international organizations to the area, an abrupt change from the relative neglect it had previously experienced. These early organizations were drawn to Senegal, and this region in particular, by the crop failures that resulted from a terrible drought. Droughts such as these became more common as the negative effects of climate change wreaked havoc on the fragile climate and ecosystem of the arid Sahel region. As aid organizations arrived, they attempted to modernize the farming operations of the subsistence farmers by introducing the new technologies that had been effectively harnessed in the developed world. This is indicative of the early approach to agricultural aid, where development agencies attempted to replicate the Western approach to agriculture. The villagers of Kunjani were used to development methods which allowed them to learn how to do things themselves due to the innovative efforts of Jaabe So, and resented the attitude of SAED that trained experts must be brought in to do the more complex steps. The lack of local participation in the project is characteristic of this time period. The focus on complicated technological interventions was likewise a hallmark of the early approach to agricultural development. In modern times, that focus has shifted; in the early 1990s, Kunjani was able to take control of its own development work through the official recognition of the Federation, which negotiated with funders and aid-providing organizations to coordinate projects in the region.⁴⁷ The village of Kunjani was not

⁴⁶ Ibid., 180.

⁴⁷ Ibid., 261-9.

unique in its ability to have an input into the development work taking place there; we will explore other projects with local participation next.

The Modern Climate of Agricultural Aid

Agricultural aid in the 21st century marks a significant departure from the early methods and strategies discussed previously. Rather than focusing on the technology upon which Western nations rely for their agricultural programs, the more recent agricultural development strategies in the developing world have used improved farming techniques that can be implemented without reliance on complex technologies. Instead of promoting the use of water pumps to allow for the production of more irrigated crops, for example, many modern organizations would encourage the use of improved seed or fertilizer, which can lead to higher crop yield without reliance on difficult-to-maintain machinery. The focus on techniques that are sustainable after the aid workers have left is a result of an overall shift in the development industry towards strategies that will allow development to endure beyond the tenure of the individuals who implement them.

In order to understand the modern agricultural aid climate, we will examine two different organizations working in Senegal in the 21st century. The first is the Peace Corps, a multinational organization that has addressed agricultural aid. Though the model of the Peace Corps is much different from the organizations discussed in the section on the early years (such as SAED), a meaningful comparison can be developed. The Peace Corps has been in Senegal for decades and evidences the changes that have occurred in recent years. Newer international organizations, such as USAID-funded Wula Nafaa, have been developed in response to the new emphases on local involvement in

international aid. The 21st century has seen a rise in organizations devised and run by local people who see the potential for development in their country, and many Senegalese natives have been involved with both Peace Corps and Wula Nafaa operations. Both of these organizations will be explored in detailed case studies which will help reveal the reality of agricultural aid in Senegal and West Africa in the 21st century, and delve into the reasons that it exists in this specific form.

The Peace Corps

The Peace Corps provides an excellent case study of the way that organizations have changed and adapted themselves to the prevailing ideologies of the time. Its long-term presence in Senegal has made it an important component of developmental aid for decades, and other organizations look to the Peace Corps for information and guidance in navigating the world of Senegalese development. The sector relevant to this case study is Agriculture, specifically in the rural setting. Agriculture is one of the newer sectors in Senegal; initially volunteers only worked in the education sector and it is only recently that they began work in the rural development sectors.⁴⁸ This is in keeping with the overall pattern of development work throughout the last half-century. Modern technologies have made it easier to safely send volunteers into rural areas, and Senegal is one of the safest places to do that in this region due to its extremely stable and democratic political situation.

Hans Spalholz is a Peace Corps Volunteer (PCV) working in the agriculture sector in the Kolda region of Senegal, in a village called Saare Gagna. I spent several days with him in Saare Gagna, learning about his work in the agricultural sector and

⁴⁸ "The Peace Corps Welcomes You to Senegal: A Publication for New Volunteers," ed. The Peace Corps (Washington, DC: The Peace Corps, 2009), 13-4.

about the situation of Senegalese agriculture in general.⁴⁹ Agriculture is the smallest of the Peace Corps' five programs in Senegal, likely because there are so few people that have the expertise necessary to help in this sector.⁵⁰ The goal of the program is to help people meet their basic food needs; they work with subsistence farmers first to help them achieve subsistence level and then to help them create a surplus. The Casamance region, of which Kolda is a part, experiences much higher levels of rainfall than the rest of the country and has the potential to be the bread basket of Senegal. Some believe that with the implementation of high-yield farming techniques in this region, the country could feed itself independently.⁵¹

Hans' role as an agriculture PCV is extremely broad, from procuring seed to offering small loans to individual farmers in the village to help pay for fertilizer. The farmers in Saare Gagna refuse to use pesticides, a policy which Hans supports; several years ago an NGO donated pesticides without teaching the villagers about its proper use and several people died from overexposure to the harmful chemicals. The proper use of even small amounts of fertilizer, however, can have astounding effects on crop yields and are not as dangerous to humans as pesticides. In his first full year, Hans taught interested farmers how to safely use fertilizer and established a small microcredit program to help offset the initial costs. The use of fertilizer, combined with the use of improved seed, the promotion of consistent weeding practices, and the rotation of crops among fields to help replenish soil nutrients, led to a 500% increase in yield in some fields. The village was able to eat off of its stores for the entire year, which had not happened in some time, and

⁴⁹ Spalholz, "Site Visit by Author."

⁵⁰ Hans Spalholz, "Interview by Author," (On the boat Aline Sittoe Diatta, somewhere off the Atlantic Coast of Senegal south of Dakar June 26, 2009).

⁵¹ Spalholz, "Site Visit by Author."

the surplus was sold in the local market town. The loans were repaid at the end of the season from the profit made from this surplus. When it was time to plant for the next season, farmers were able to purchase their own seed and fertilizer from that profit. Many families within the village opened bank accounts for the first time and began to save their money for more difficult times. In a single season, these methods helped the rural villagers regain food security. They had a self-sustaining farming operation which provided capital for planting the next season.⁵²

That is not to say that the improved crop yield helped all families equally, or that all of the effects were long-lasting. The importance of tradition in Senegalese society cannot be overstated, and some farmers reverted to their previous habits, even after seeing the effects of the new techniques. The local cash crop is groundnuts, and though corn was found to be more profitable, many still planted excess fields with groundnuts. Furthermore, not all crops did equally well and many still had to borrow money in order to buy improved seed and fertilizer the second year. The use of fertilizer has also been criticized by environmental organizations as a practice that is environmentally unsustainable, which calls into question the validity of these practices entirely. Though these criticisms and shortcomings are valid, the fact that any success was achieved in such a short period of time is encouraging.⁵³

The agriculture sector of the Peace Corps is a perfect example of the focus on sustainable development in the modern world. One of the three main objectives of the Peace Corps, as listed in a guide for new volunteers, is “to help enable sustainable

⁵² _____, "Interview by Author."

⁵³ _____, "Site Visit by Author."

development in the countries where we work.”⁵⁴ The point of their presence in the country is not simply to help people, but to help them learn how to help themselves. The entire nation relies on food produced by rural farmers in some capacity, and that reliance could become even more pronounced as farmers achieve higher crop yields. It is important, then, that the organizations participating in development undertake programs that can be continued after the organizations are gone. Producing an incredibly high yield for several years but being unable to maintain it would be more harmful than not intervening at all. Once people are accustomed to having plenty, it can be difficult for them to ration meager supplies once they return to poverty. Furthermore, if the interventions rely on methods that are not environmentally sustainable, they could do long-term harm even while achieving short-term success. As a result, organizations have begun to focus on sustainable practices as the damage from earlier unsustainable campaigns has become evident.

The Peace Corps is notable in its willingness to change its methods in light of new evidence of the efficacy of its programs or the needs of its constituents. It is because of this that the organization has begun to focus more on rural development in Senegal. Optimizing agricultural outputs can lead to a completely different socioeconomic situation for rural farmers, as is evidenced by the progress achieved in Saare Gagna in a single growing season. In the absence of localism, rural development projects are difficult to implement, and so the move towards local practices encouraged this type of intervention. The practice of trial and error in development work has ceded way to evidence-based protocols; with such evaluation it has become clear that development activities must be undertaken in such a way that local people are included in the planning

⁵⁴ "The Peace Corps Welcomes You to Senegal: A Publication for New Volunteers," 1.

and execution phases. The goal of development is to work oneself out of the job, which necessitates sustainable practices. The Peace Corps is not the only organization which has come to this realization; next we will look at the case of Wula Nafaa, a relatively new organization supported by USAID.

Wula Nafaa

Food production is not the only issue when it comes to food security; the distribution and transportation of food is another important aspect. Wula Nafaa⁵⁵ is a USAID-funded organization that works with villagers to help them reap the benefits of the natural forest and find markets for their agricultural products. The regional coordinator for Kedougou, Mamadou Ba, explained the structure of the program.⁵⁶ They do not teach improved farming techniques, but instead help people add value to their agricultural products through rudimentary processing steps. They also teach people to responsibly harvest naturally-growing forest products and prepare them for sale in major cities as well as abroad. In this way, they encourage the use of domestically grown food products and help decrease the rate of food importation in Senegal. Furthermore, they help develop the transportation infrastructure necessary to sell these goods beyond the local market town, where the majority of rurally-grown and produced Senegalese food is sold. Almost all food produced in Senegal is consumed within 20-30 kilometers of the place that it was grown; with a larger market, excess food could be sold to areas that are struggling agriculturally, limiting the need for external aid.⁵⁷

The program is multifaceted; it was initially conceived as a way to encourage people to harvest edible delicacies from the forest, as one has to do almost nothing to

⁵⁵ In English, Benefits of the Forest

⁵⁶ Mamadou Ba, "Interview by Author," (Kedougou, Senegal August 25, 2009).

⁵⁷ Ibid.

make a profit. They require little to no inputs and can provide a reliable supplementary income for subsistence farmers. These products include pain de singe (the fruit of the baobab tree), honey, and other forest fruits. They do not advocate for exploitation of natural resources, however; they teach people to be respectful of the forest and to replenish the resources that they take. Wula Nafaa's program teaches people, mostly women, to perform the first processing steps for these products so that they can make a better profit. Pain de singe that has been ground into powder, for example, fetches a much higher price than the fruit itself does, as it is generally used as a powdered additive to other foods. By pairing simple refining steps with quality control measures, villagers can create a valuable, high-quality product that will provide significant income. Wula Nafaa then helps to locate and ensure a market for the goods; they can guarantee a high-quality product and foods can even be exported internationally, which had rarely happened in Senegal previously.⁵⁸

Wula Nafaa also does more traditional agricultural work, though it emphasizes the processing and refining of foodstuffs after they have been harvested over pre-harvest farming techniques. In particular, they encourage their constituents to grow fonio, a type of millet with a high nutritional content and an incredibly short growing cycle, making it ideal both for the West African climate and for consumption by West African populations. Much like with the forest products, the villagers are taught how to complete the first step of processing for the grain. Fonio is particularly difficult to husk, as it is a very small grain, and so Wula Nafaa works with microcredit organizations to help villages procure fonio husking machines to enable the large-scale processing of the grain.

⁵⁸ Ibid.

By undertaking the first steps of the refining process the farmers can make a much larger profit when they are able to sell the grain.⁵⁹

The administrative structure of Wula Nafaa attests to the growing participation of locals in NGO activity. The program is funded by USAID, the development agency of the United States government, but it is administered by the Senegalese themselves. Indeed, it seems that USAID did learn from its early experiences in Senegal, and its new programs reflect a commitment to local participation. Wula Nafaa began in 2003, 40 years after the Peace Corps first began sending volunteers abroad. As it is a more recent development, it reflects the trends of its time, namely the involvement of local people in the development process. This trend began around the same time as the trend towards sustainable development practices, and they both reflect the ideology that development should be an organic process directed by those who will benefit from the program. Those who are local representatives of Wula Nafaa live in the communities that they serve and are a consistent resource for the constituents.⁶⁰

Wula Nafaa's work is unique in that it goes beyond the conventional conceptualization of agricultural aid. Its primary goal is to reduce the amount of food imported by Senegal and to help the country maximize its food security. While this can be done with improved crop yields, it can also be done by maximizing profits and encouraging wider distribution. Wula Nafaa has embraced this unique approach and complements the work of other agricultural organizations in the same area. Such an approach would never have been attempted in the early years of Senegalese independence, as the developmental method employed at that time was an attempt to

⁵⁹ Ibid.

⁶⁰ Ibid.

mimic the developed world. The approach used by Wula Nafaa is unique to Senegal's climate, socioeconomic situation, and the needs of its people. Furthermore, it is an approach that requires no complex technological inputs. It comes from the Senegalese people themselves, and is thus replicable and sustainable across the country. It is funded, however, by USAID, which is an inherent limitation to its replicability. There are plans by some smaller, completely local organizations to begin programs in the area of agricultural development, which will complete the next logical step in the progression of food security programs.

Conclusion

The agricultural approach to hunger and famine has been a hallmark of food security programs for decades. By maximizing agricultural outputs, countries can import less food and become more economically sound. The ways in which development organizations have perceived this type aid has changed significantly over time; agricultural assistance has become more common in the more recent decades due to the effects of climate change and the vast improvements in agricultural technology in the West. The types of agricultural interventions that are most commonly implemented have also changed over time, shifting away from complex technological interventions that attempted to fit solutions from the developed world to the problems of the developing world. When these developmental techniques were seen to be innately unsustainable, other approaches were attempted. In the modern day, the emphasis is on sustainable development techniques that can be learned and replicated by the people of the developing world.

Interestingly, many agricultural development programs have little to do with hunger. Western institutions find economic development to be the most important thing to implement in the developing world, and so policies like export-led growth and structural adjustment were formulated. They believe that it's important for nations like Senegal to play a role in the global economy, so they encourage the planting of cash crops like groundnuts so that the nation can benefit from the sale of commodities.⁶¹ Furthermore, they attempt to make the developing world mimic the developed world through the encouragement of private sector growth and market deregulation. To these individuals, agricultural development has become part of a larger set of national and international goals, and addressing hunger is not always the priority.

This progression toward the coordination of development work by locals in the developing world is continuing in the modern era with the advent of organizations like Oceanium. This local, Dakar-based NGO was founded by Haidar El Ali in 1984 as an environmental organization, and has played an important role in the formation of environmental legislation in Senegal.⁶² It was one of the first NGOs that was founded and run by local people, and represented a change in the way that developmental infrastructure was built. None of Oceanium's current programs relate to hunger and famine directly; they mainly focus on mangrove reforestation and the rehabilitation of endangered marine species that have been overfished or that have had their environments badly polluted. In the Casamance region, regional coordinator Elise Cabo explained that they have future plans to expand into the area of food security by starting programs to

⁶¹ Groundnuts are no longer a viable export option for the Senegalese due to recent findings of high levels of Aflatoxin in Senegalese groundnuts. They are no longer imported by the West, who have imposed restrictions on such products, but many farmers continue to produce them because it is the traditional practice. (Spalholz, "Interview by Author.")

⁶² Haidar El Ali, "Interview by Author," (Dakar, Senegal June 20, 2009).

help manage fruit trees.⁶³ During the months of the harvest, fruits such as mangoes and citrus are plentiful and are sold for very low prices. During the rest of the year, scarcity leads to high prices and even hunger and starvation in some areas, as fruit is an important supplement to the diet. Oceanium hopes to work with villagers to help them plant more fruit trees and teach them how to ration the output so as to make the profits and nutritional values of the harvest last further into the year.⁶⁴ The involvement of local populations in the planning and execution of these programs is the next step in the evolution of agricultural development and aid, and was made possible by the steps taken by the organizations discussed earlier. This is the culmination of the focus on sustainable development that has characterized the last few decades.

⁶³ Elise Cabo, "Interview by Author," (Bignona, Senegal July 2, 2009).

⁶⁴ Ibid.

CHAPTER 3

THE HUMANITARIAN APPROACH TO HUNGER

The plight of the developing world is of great concern to those who live in developed countries. Many feel the burden of their own country's responsibility in colonialism and the slave trade, which had devastating effects on the natural developmental process of such countries. West Africa was one of the areas hardest hit by colonial practices, as many of the major slave ports were located in this region. While it is impossible to predict how the nations of West Africa would have developed in the absence of European influence, it is certain that the progression would have been different. It is for these reasons that individuals from many European nations, as well as other developed nations, remain extremely involved in the provision of aid to the developing world. Humanitarian aid is most frequently offered, and most fervently needed, in times of crisis. In the context of global hunger, the crisis is famine, which can be caused by any number of things. It is often related to crop failure, caused either by climactic or social changes, but famine rarely occurs after a single bad harvest year.¹ Instead, it requires several years of low crop yields; this is often coupled with poor infrastructure and uneven national distribution of food. This makes certain areas within a country more vulnerable to famine than others, and complicates famine prevention and relief efforts by outside organizations.

West Africa is particularly susceptible to food crisis, as the climate is not conducive to agricultural production even in its optimal state.² Furthermore, the region is known for its poor infrastructure and limited rural access; the very regions most

¹ Mellor and Gavian, "Famine: Causes, Prevention, and Relief," 540.

² Freud, "French Economic Cooperation with Senegal and Cameroon," 394.

susceptible to crisis are those that are the most difficult to help. The complications wrought by these factors are not insurmountable, but must be carefully considered by the organizations that choose to provide emergency relief to the developing world. Indeed, it is an emergency or crisis that first brings many organizations to the nations where they work. As the recent Haitian earthquake has shown, disaster often leads to an outpouring of monetary and humanitarian support, but history has shown that this can be fleeting. Nearly half of the total money raised in the first year following Hurricane Katrina was donated in the first two weeks.³ For this reason, it can be difficult to characterize the humanitarian approach to hunger, especially when the organizations remain in the region for years after the crisis has been resolved. Even in the absence of a crisis, however, the organizations operate in the same vein and with the same priorities. The humanitarian approach is often brought on by a specific local incident that leads to food shortages, but many such organizations remain in the region once the extent of the problems has been realized. Most of them respond to the problem of hunger by providing food aid to those who are hungry rather than addressing root causes, revealing that they see hunger as a short-term problem.

The humanitarian approach has remained more static than other approaches in the past several decades. While the techniques of the agricultural and medical aid have been altered to accommodate new trends in the aid climate, the methods of humanitarian aid have not changed so dramatically. There are some aid organizations that are completely conceived, administered, and staffed by local people, but few of these undertake strictly humanitarian work. This is likely due to the unique structure of organizations that provide humanitarian aid. It is important in this work to have adequate funding to support the

³ "Corporate Kindness," *Newsweek*, February 15 2010.

programs that are implemented. In the case of humanitarian aid, the monetary need is quite high, as much of the work involves the provision of supplies and food supplements to starving populations. Local people do not have the monetary means or international connections to coordinate such an effort; in addition to needing monetary support from the developed world, one must be able to procure the supplies from abroad and bring them to the country in need. It is not impossible for local people to participate in this work, but it is difficult for them to become involved at the higher levels. This is not to say the trend of localism has not affected the realm of humanitarian aid at all; large organizations doing humanitarian work often work with smaller local organizations to provide the aid to those who need it.

In order to better understand the humanitarian approach to hunger, all parts of the work must be discussed. We will first delve into the factors which can encourage people to give in times of crisis; this is a necessary aspect of humanitarian aid and such organizations could not function without this support. To illustrate this approach, the World Food Programme's operations in the Casamance region of Senegal will be examined as a specific example of a humanitarian aid organization which came to the region in order to respond to a crisis, but has remained after its passing. In specific, the relationship between WFP and smaller local organizations will be explored in order to better understand how the trend of localism has played out in the humanitarian sector.

Characteristics of the Humanitarian Approach

The humanitarian approach is initially quite difficult to characterize. Unlike the medical and agricultural approaches, where the physical type of work done by an

organization is what characterizes it, the humanitarian approach encompasses all projects that rely on distribution of material goods as the primary method of relief or development. The importance of material goods to this approach highlights the importance of the involvement of wealthy Western donors. In order to comprehend how such organizations operate, we will look into what motivates individuals to donate.

Why do People Give?

Substantial scholarly literature has been devoted to the question of why people give to others, both in terms of time and of money. Some focus on the psychological aspect of the issue, trying to understand altruism in terms of theories of evolution. Others have taken a more practical approach, trying to understand what specific incentives will motivate an individual to give to a cause; the strategies used by fundraisers for major charities and humanitarian organizations come from such literature. At the core of this field of study is the question of why individuals would give to others whom they have often never met and may never meet. This is incredibly important with respect to the humanitarian approach to aid, as it fundamentally depends on altruism and the willingness of individuals to give. In terms of motivation of individuals to become involved, development and relief aid are quite different: the motivation of individuals to give is of much greater importance to relief-oriented, humanitarian organizations than it is to development-oriented organizations. In order to better understand these processes, the economic and psychological explanations for charity will be explored.

Economic Explanations of Charitable Giving

Charitable fundraising is a topic of significant scholarly discussion, largely because it is to the benefit of major organizations to understand what motivates their

donors to give to them. In particular, researchers are interested to learn whether individuals give because they believe in the work that is being done by the particular organization (public motivation) or because they want to reap some personal benefit from the donation (private motivation).⁴ For example, if a person donates money to an organization, they may get some sort of social standing or status from this donation that they would otherwise be unable to achieve. Thus, it matters little to them what work is done by the organization, so long as they are receiving this status as a benefit.⁵ The difference in motivations for giving is actually extremely important if we are to understand the reason that incidents like famine lead to such an outpouring of monetary support. The classical model of giving assumes that people care little for an organization's output, and will give less if others are giving, as they feel the need of the organization has been served by the other person's donation.⁶

Social momentum, however, can play a key role in soliciting donations for a cause. The use of "leadership givers," or individuals who give large amounts of money to a campaign in the early stages to inspire others to give, is a very effective strategy for encouraging donations.⁷ It is clear, then, that the classical model of giving is not entirely accurate, as people tend to give more once others have given. This is summarized in what is called the Kantian rule: individuals give as much as they expect or would want others to give, and reciprocity creates a social pressure for individuals to give if others are giving.⁸ While the exact motives for giving have not yet been elucidated, it is clear that

⁴ Lise Vesterlund, "Why Do People Give?," in *The Nonprofit Sector: A Research Handbook, 2nd Edition*, ed. Walter W. Powell and Richard S. Steinberg (New Haven, CT: Yale University Press, 2006), 12.

⁵ *Ibid.*, 16.

⁶ *Ibid.*, 27.

⁷ James Andreoni, "Toward a Theory of Charitable Fund-Raising," *The Journal of Political Economy* 106, no. 6 (1998): 1189.

⁸ Vesterlund, "Why Do People Give?," 28-9.

the work done by an organization is an important factor, as well as the social pressure created by the giving of others. In the context of famine, this highlights the importance of media coverage, which so often accompanies disasters in the developing world.⁹ By emphasizing the giving of others and the importance of the work, people become more willing to donate, making the work of humanitarian organizations possible in times of disaster.

Psychological Explanations of Charitable Giving

While many biologists believe that altruism and giving are evolutionarily linked to kinship between the giver and the receiver, this is difficult to argue in the face of overwhelming modern evidence.¹⁰ While there appears to be no familial link to altruism – indeed scientists have yet to find a systematic explanation for what differentiates altruists – it is evolutionarily beneficial to save the lives of one’s kin.¹¹ Accounting for altruism, both in humans and in the animal world, was a significant problem for Charles Darwin in formulating his theory of evolution.¹² Ronald Cohen describes altruism as “an act or desire to give something gratuitously to another person or group because he, she, they, or it needs it or wants it.”¹³ B.J. Skinner gives an extremely simple reason for this: “We sometimes help,” he posits, “because we find the helplessness of others aversive.”¹⁴ It is not, however, always so straightforward. In the case of a disaster, those who are close to

⁹ The example that comes to mind is from the recent Haitian earthquake; for several weeks following the disaster all major news channels had coverage of the event. This was not the only exposure that the public had to the event, however. During all major sporting events in those weeks, text scrolled along the bottom of the television, informing patrons how to donate money to the Red Cross’ efforts in Haiti via text message.

¹⁰ Lee Alan Dugatkin, *The Altruism Equation: Seven Scientists Search for the Origins of Goodness* (Princeton, NJ: Princeton University Press, 2006), xi.

¹¹ Kristen R. Monroe, *The Heart of Altruism: Perceptions of a Common Humanity* (Princeton, N.J.: Princeton University Press, 1996), 194.

¹² Dugatkin, *The Altruism Equation: Seven Scientists Search for the Origins of Goodness*, 10.

¹³ Ronald Cohen, "Altruism: Human, Cultural, or What?," in *Altruism, Sympathy, and Helping: Psychological and Sociological Principles*, ed. Lauren Wispe (New York: Academic Press, 1978), 81.

¹⁴ Skinner, "The Ethics of Helping People," 250.

the situation must adapt to their surroundings and get used to the often terrible conditions and suffering. Those who are far removed from the situation often experience sympathy and empathy for those being affected by such a disaster, which they can't imagine.¹⁵ Thus, there is often an outpouring of foreign aid following a disaster, as those who hear about it through the media attempt to do something to help. There is, of course, a cultural element to this as well; American culture values giving, and so Americans give more regularly. 70% of Americans give to charity, averaging 2% yearly of their total household income.¹⁶ What is it about Western society, in particular, that encourages charity and altruism? Of course there are many cultural differences between the West and other nations, but there is nothing to suggest that the people in these cultures are fundamentally different from one another. One argument is that the structure of the American nuclear family, which is very tight-knit, leads to a higher level of sympathy for or empathy with others, itself leading to a higher level of giving.¹⁷ Americans also tend to be rather religious, and most major world religions encourage charitable giving as part of religious practice. One study found that religious obligation or belief was one of the highest motivations for altruistic giving, second only to personal relationship to the cause.¹⁸ These facts unite to explain the relatively large amount of private foreign aid given to the developing world, which is necessary for the humanitarian approach to aid the function properly.

¹⁵ Cohen, "Altruism: Human, Cultural, or What?," 87.

¹⁶ David M. Van Slyke and Arthur C. Brooks, "Why Do People Give?: New Evidence and Strategies for Nonprofit Managers," *The American Review of Public Administration* 35, no. 3 (2005): 201.

¹⁷ Cohen, "Altruism: Human, Cultural, or What?," 92.

¹⁸ Ida Berger, "The Influence of Religion on Philanthropy in Canada," in *Voluntas: International Journal of Voluntary & Nonprofit Organizations* (Springer Science & Business Media B.V., 2006), 121.

The Pattern of Humanitarian Aid

Humanitarian organizations are often, but not always, drawn into a region by a crisis, and remain until they believe the crisis has been adequately resolved. PPNS, which was discussed as a medical organization, has many elements of a humanitarian project, and so it can be seen to exemplify the early mode of humanitarian aid. Though the food supplements they were distributing were meant to be educational tools on nutrition, their primary operation involved distribution of food on a massive scale. The program was run entirely by Westerners, and had no local participation, which was characteristic of early humanitarian organizations. We will now examine in detail a humanitarian organization that has embraced partnership with local organizations as part of its primary developmental ethos.

The World Food Programme

The World Food Programme (WFP) is the food security branch of the United Nations (UN), founded in 1962. It first came to the Casamance region in response to the violence between the government and the local separatist movement. As Marc Henrottay, Regional Director of WFP in Casamance explained, they came in a time of crisis to help provide food aid to those who were unable to procure food from their usual sources.¹⁹ As they realized the extent of the crisis, they branched out into areas other than the provision of food, and established an office in the regional capital of Ziguinchor to provide a base for their operations. WFP now runs four main programs in Casamance: the Cantine Scholaire,²⁰ which feeds children at school, a program to encourage economic development, a program which coordinates the efforts of local groups, and a program to

¹⁹ Marc Henrottay, "Interview by Author," (Ziguinchor, Senegal July 8, 2009).

²⁰ In English, School Feeding Program

teach about nutrition. WFP does not provide the manpower for these programs; only ten people work for the organization in the region in total, all in the regional office. Instead, the program provides materials and coordinates for other regional organizations.

As the food security arm of the UN, WFP has branches in countries all over the world. According to its mission statement, “The ultimate objective of food aid should be the elimination of the need for food aid.”²¹ The program provides food most often in emergency situations, when countries are unable to coordinate their own food distribution systems. This is reflected in their core policies: “to save lives in refugee and other emergency situations; to improve the nutrition and quality of life of the most vulnerable people at critical times in their lives; and to help build assets and promote the self-reliance of poor people and communities, particularly through labour-intensive works programmes.”²² The first two of these policies reference times of extreme need, and seem to focus on helping pull people out of the difficult situations wrought by natural and man-made disaster. The last tenet does reference developmental strategies, showing that not all of WFP’s programs fall into the humanitarian context. The funding for the organization comes from other countries’ governments through the UN as well as private donations from individuals in the developed world.²³ They are dependent on this aid for their operations, and must maintain these ties to the West to run their programs.

The Casamance Civil War

When Senegal attained nationhood in 1960, the Casamance region wanted to withdraw and become its own nation. The residents of the Casamance region belong

²¹ "World Food Programme Mission Statement," United Nations World Food Programme, <http://www.wfp.org/about/mission-statement>.

²² Ibid.

²³ Henrottay, "Interview by Author."

primarily to the Diola ethnic group, and are not found in large numbers anywhere else in Senegal. The region had been administered relatively separately under French colonial rule. Many took this to mean that the Casamance should be its own nation, and should never have become a part of Senegal.²⁴ In the early 1980s, the conflict turned aggressive, and sectarian violence raged for the next few decades. The Mouvement des Forces Democratiques de Casamance (MFDC)²⁵ began by organizing protests and peaceful demonstrations, but eventually an armed wing of the MFDC developed and violence devastated the region. While much of the fighting was between the government forces and the MFDC, civilians did become involved, and many crossed into the neighboring countries of Gambia, Guinea, and Guinea-Bissau to flee the violence. Thousands were killed over the decades as peace treaties were made and broken and the MFDC splintered into increasingly violent and desperate sects. Those farmers who had not become soldiers were displaced by the violence, and so agricultural production was negatively affected.²⁶ The majority of the violence has now been stymied; occasional attacks are commonplace but there haven't been any major actions on the part of the MFDC since negotiations over the last treaty in 2006.²⁷ While the conflict remains significant in the region, it has not led to the regional disruption that similar conflicts have incurred, and so it is not as well known.²⁸

²⁴ Hamadou Tidiane Sy, "The Casamance Separatist Conflict: From Identity to the Trap Of "Identitism", " in *Identity Matters: Ethnic and Sectarian Conflict*, ed. James L. Peacock, Patricia M. Thornton, and Patrick B. Inman (New York: Berghahn Books, 2007), 159-60.

²⁵ In English, Democratic Forces of Casamance

²⁶ "Protracted Relief and Recovery Operation PPRO 10612.0: Post-Conflict Rehabilitation in the Casamance Naturelle," (Rome: World Food Programme, 2007), 3.

²⁷ Jong Ferdinand de and Genevieve Gasser, "Contested Casamance: Introduction," *Canadian Journal of African Studies / Revue Canadienne des Etudes Africaines* 39, no. 2 (2005): 214.

²⁸ *Ibid.*: 218.

The war affected the region in many different ways, not all of which are apparent. The usual trappings of war – land mines, orphans, and refugees, for example – were present, but the region was much more deeply scarred than was initially apparent. The Casamance region has much higher rainfall than the rest of Senegal, and has the potential to produce enough to feed the entire nation.²⁹ Regardless of the effect of the war on crop yields, which has not been systematically analyzed, the violence in the region made transportation of food nearly impossible and made many aid organizations pull out of the area due to the risk the violence posed to their workers. Furthermore, the government was unable to provide any of the limited services that they had previously offered due to the animosity towards the government and danger to any government officials that entered the region. Though the situation has improved dramatically in the past decade, the region remains quite unstable.

The Role of the World Food Programme

WFP came into the Casamance in 2002 in response to the unrest and violence in the region. Like most other organizations, it did not come to Casamance until it was relatively safe, after the first of several peace treaties had been signed. Between 1995 and 2004, the number of people in the region affected by poverty increased by 34%, attesting to the long-lasting effects of the war on the people of the Casamance.³⁰ As the biggest-budget program in the nation, with arguably the highest visibility in Senegal, WFP is an extremely important provider of aid.

The structure of the program in the Casamance is relatively simple. Mr. Henrottay serves as the head of the regional office, which has a staff of ten. These individuals work

²⁹ Spalholz, "Interview by Author."

³⁰ "Protracted Relief and Recovery Operation PPRO 10612.0: Post-Conflict Rehabilitation in the Casamance Naturelle," 2.

in the office to help set the priorities for the region and ensure that program operations are going smoothly. None of the work on the ground is actually done by WFP workers; instead the organization partners with other service providers in the community. In the Casamance region alone, it was estimated that the office works with about 30 different NGOs and agencies to provide the aid. The character of the agencies varies; one of the major partners of WFP is The United Nations Children's Fund (UNICEF), another UN program dedicated to child health and welfare. Not all of WFP's partners are large organizations, however. They have also partnered with smaller organizations as well as the Senegalese government in order to deliver their aid most effectively.³¹

Their first hunger program was the Cantine Scholaire, which works with UNICEF and the Ministry of Education to provide meals to students at school. 150,000 students in the region are fed daily through this program at over 700 schools. As part of this program, they have also worked to improve school enrollment rates. In particular, female enrollment rates have improved dramatically in the region over the last few years. Not all of their early work in the Casamance was directly related to hunger; one of their biggest successes in the region to date has been the Land Reappropriation Program, which has helped those displaced by the violence in the 1980s and 90s to reclaim their original land and re-settle there to begin their lives again. The nutrition and economic development programs have showed promise; in 2008 WFP decided to extend its presence in Casamance beyond the initial 6-year program. Casamance was still a very vulnerable region at this time, with nearly 50% of households in danger of food insecurity.³² The

³¹ Henrottay, "Interview by Author."

³² "Protracted Relief and Recovery Operation PPRO 10612.0: Post-Conflict Rehabilitation in the Casamance Naturelle," 1.

new program expanded WFP's reach to more remote rural areas, which were in dire need of aid.³³

As is evident upon investigating its multifaceted causes and effects, famine is an extremely complex situation. No two famines in the history of the world have been caused by the exact same set of circumstances, and divergent cultural norms and ideals complicate the issue even further. The aid workers at WFP see hunger in a particular way; namely they believe that hunger problems can be fixed with chronic food supplementation and basic community development programs. Those who are receiving the aid, however, are skeptical about this approach. WFP is oft-maligned in Senegal; its large budget leads many to believe that its programs are wasteful, and accusations of corruption among the higher officials run rampant. Locals are highly suspicious of the high rate of turnover in WFP programs, and believe that the inability of most WFP workers to speak the local languages is indicative of their lack of commitment to the people of Senegal. They are likewise unpopular among other aid workers; one Peace Corps Volunteer in Mali called a WFP food drop a traumatic experience that brought out the worst in everyone involved. The food was delivered to the site with no support from WFP for the coordination and distribution of supplies. There was so much food that it was going bad, and it was unclear how the food could be best distributed. People began to rush the supplies, taking what they could with no regard for order. The volunteer struggled with this experience, and has since been mistrustful of WFP activities and distributions.³⁴

³³ ———, "Interview by Author."

³⁴ Mouton, "Interview by Author."

Despite the breadth of programming, it is clear that the primary attitude behind many WFP programs is one of emergency relief and not of development. Their nutrition programs do help combat malnutrition, but this is one of very few preventative, developmental acts undertaken by WFP. In years of bad harvest, they simply complement the harvest with their own food supplements rather than working to avoid a bad harvest entirely. When asked if they ever worked with farmers to increase crop yields and provide more consistent harvests, Mr. Henrottay responded that working with farmers is not something that WFP does. Instead, they focus on supplementing harvests to ensure that all people have enough to eat. These harvests are supplemented, however, with food from other countries. WFP does not want to upset the delicate market for food in Senegal, and so procures its food stores from its donor countries. The nutrition content of foods produced in the developed world is often much higher than those produced in the developing world due to optimal growing conditions, and so it is nutritionally advantageous to use foods produced in the West.³⁵ The fact that they do not work with farmers to help them improve the nutritional content of their food or crop yields attests to their lack of a long-term strategy for the region. They do not see a need to prepare for a time when they will not be present to provide food supplements, and so they factor themselves into the long-term solution. This is the ultimate paradox: they see hunger as a short-term problem, but plan for their own presence in the region long-term. Though their mission statement claims that they are attempting to work themselves out of the job, there is no evidence that they are upholding this ideal in their work within the Casamance region.

³⁵ Henrottay, "Interview by Author."

The WFP model is an extremely impersonal one; the organization works in many different countries and tries to implement the same programs in a variety of cultural contexts. It is important to think about replicability when planning aid approaches to a common problem, but here replicability is stressed at the expense of a program that works within the local context. Administrators rarely stay in one country for long, so it is difficult for them to learn the language and understand the culture before moving on to another environment. This is often perceived negatively by the local populations. These issues make clear the disconnect between the WFP workers and the Senegalese people. In particular, it seems that their conception of a simplistic solution to an extremely complex problem is seen as reductionist and essentially ineffective.

Conclusion

When one thinks about aid organizations, the humanitarian approach is the first that comes to mind for many people. This is the traditional mode of helping others: providing what they need because you are in a position to do so. There is also a romantic ideal in the Western mind of going to help starving populations who cannot help themselves. In the case of hunger, humanitarian organizations make up a substantial proportion of the NGOs working in the developing world. While it is often a disaster that leads the organization to enter a region, many stay beyond the initial phase of the disaster, as they realize the long-term necessity of food aid in the region. They do not adapt their theoretical approach to this new-found information, however, and continue to operate in the humanitarian mode of aid. Rather than addressing root causes, they provide food supplements to populations when they are unable to produce enough food to feed

themselves. In the absence of food aid, there is motivation for farmers to improve their farming practices and increase their crop yields. When there is an external food source to fall back on, they are able to continue their traditional farming practices, which often do not produce enough food to feed their families. Thus, this is an inherently unsustainable system which relies on donation from outside sources help the population to avoid starvation.

The recent shift towards locally-based aid has had unique implications in the field of humanitarian aid. There have been significant changes in the field over the past few decades which can be related back to the growing importance of localism in developmental aid. Because Western funding and connections are necessary to provide aid in the humanitarian mode, it is nearly impossible to have a small, local humanitarian organization. Larger organizations have begun to partner with smaller organizations to implement this aid, as was seen with the World Food Programme, which allows them to participate in this movement in international aid while maintaining their work within the structure of humanitarian aid. The trend towards localism is likely why there are fewer humanitarian organizations in modern times than there were in the immediate post-independence era.

The humanitarian impulse is a complex thing to understand, but regardless of its motivations it should be harnessed to better the lives of people around the world. While the way that such organizations perceive hunger may be quite different from local conceptions, the work that they do in disaster situations is invaluable and cannot be overlooked. The relief aspects of humanitarian work are necessary in a crisis setting, but the issue is complicated when such organizations stay in the region after the crisis has

ended. They are often resented by local populations, and many do not take the time to get local input on their projects before executing them. This creates ill will in communities towards all outside aid, which can be a toxic environment for organizations attempting to come in. The new partnership with local organizations has done much to improve this relationship; the humanitarian approach has not escaped the impact of localism.

CONCLUSION

THE NEW FACE OF GLOBAL AID

On January 12, 2010, an earthquake of 7.0 magnitude hit Port-au-Prince, the capital of Haiti, leaving massive devastation in its wake.¹ Poor construction materials used in the city led to widespread destruction around the city, with estimates of 200,000 to 250,000 casualties and US\$7.2 to US\$13.2 billion in damages.² The situation has led to an outpouring of aid from the developed world, especially the United States. The earthquake created hundreds of thousands of new homeless, with hundreds of thousands more injured. Providers of aid mobilized immediately, and hundreds of organizations are now operating in Haiti in an attempt to alleviate the effects of the disaster.

Numerous issues explored in this paper can be seen in the relief efforts for the Haitian earthquake. Many of the organizations working in Haiti have no experience in the area, so they are relying on other organizations and local individuals to connect them to those who need the most help. The conflict between relief and development responses will likely become a factor in the coming weeks, as some providers of aid will determine that the acute need for aid has ended. Charitable giving from the developed world will eventually wane as other international events draw people's attention. Those groups with longer-term strategies will remain in the country, attempting to help the nation recover from this setback in the path towards development.

Poverty, like hunger, is an extremely complex situation impacted by dozens, if not hundreds, of factors. The developed world is presented with a simplified version of

¹ Simon Romero and Mark Lacey, "Fierce Quake Devastates Haitian Capital," *The New York Times*, January 12 2010.

² Mark Lacey, "Estimates of Quake Damage in Haiti Increase by Billions," *The New York Times*, February 16 2010.

poverty; images of shanty towns and tent hospitals are shown to highlight a single point: these people have nothing. In order to help these struggling individuals, those in the developed world give of their own possessions so that those with nothing could have something. This two-dimensional representation does not get at the root causes of Haitian poverty, such as the lingering effects of the transatlantic slave trade and international capitalism or the unfortunate climactic and geologic conditions of Haiti. While it is important to supply relief aid in times of disaster, this investigation has shown that complex problems benefit from multifaceted solutions, and a plurality of approaches may be helpful in combating poverty in Haiti.

As in Haiti, the variety of organizations involved in combating hunger in West Africa is staggering, and throughout this investigation many different programs have been studied in-depth. These case studies reveal the complexity of the issue and of the approaches that are taken to help ameliorate the situation. It is clear that organizations do not fall neatly into the prescribed categories; many undertake a variety of projects that could be classified differently. These divisions are also not comprehensive; there are surely hunger-related projects that exist that do not fit into any of these categories. This emphasizes the intricate nature of the issue of hunger in the developing world. It is hard to define and even more difficult to understand. For this reason, all approaches are valuable. Every organization profiled here has merit in that it is working towards a solution for the problem: people are hungry and need to have food to eat.

The extreme simplicity of that statement belies the convoluted nature of hunger. On an individual level, it is very simple: the experience of hunger is agonizing and people will go to great lengths to be able to eat. On a population level, it is far more intricate:

climactic, socioeconomic, infrastructure and political issues lead to populations being unable to produce or procure enough food for themselves, leading to widespread hunger throughout impoverished populations. The approaches taken to address this have not remained static over time. Like all industries, the aid industry responds to relevant international trends. Most recently, the trend of localism has manifested itself in aid. It is one trend that has contributed to the changes seen in different approaches and the relative popularity or paucity of different types of interventions.

From consumer choices to politics, localism is increasingly popular in the modern world. Similarly, trends towards localism impact aid from many different angles, and so its effects are multiplied. In the medical approach, local healthcare professionals have become more involved in the treatment of hunger, as training has become more widely available. The agricultural approach has shifted to include more interventions that use easily-acquired technologically-based aids and many operations have been transferred to locals. Humanitarian projects often now involve partnership with local organizations to help with implementation.

Cultural Competency

The history of development is nuanced; it can be easy to forget that the developed world also once went through the process of development, though it looked very different from this iteration. The postcolonial conception of development work consists of outsiders coming to a new environment and creating systems so that the impoverished country can succeed in becoming part of the global economy. The image of the Westerner coming in to help the poor people in developing countries has been around for

decades, perhaps even centuries. The colonial mindset that native populations are incapable of helping themselves was, to a certain extent, preserved by the development work that was implemented just after independence. Without a respect for the abilities of local populations to undertake such operations themselves, those involved in development work will never be able to transfer operations over to them and leave the country to manage its own development.

The developing world does benefit from the work done by aid organizations; it is hard to argue otherwise. But across sectors, those organizations that have been the most successful in their work have been those that involve local populations in their solutions to these problems. The Senegal Community Nutrition Project, for example, was planned by the international community but was implemented by a collective of local organizations who were aware of the issues on the ground. While there have been doubts relating to its efficacy, it was much more successful than its top-down predecessor, PPNS.³ Building respect for a program within the community is one of the most important steps in ensuring its continuation and success. Those organizations that attempt to focus on community relations generally find that their operations are easier and better accepted by local populations.

Westerners working in the developing world often find their work easier and more manageable if they take the time to gain cultural literacy. Many of the individuals I interviewed stressed the importance of local language skills and cultural knowledge in undertaking aid projects. Cultural barriers became clear in myriad different projects, from the PPNS, where the children were not eating their own food supplements because adults

³ Gartner et al., "Has the First Implementation Phase of the Community Nutrition Project in Urban Senegal Had an Impact?," 229.

get priority in Senegalese culture, to Animatrices de Santé, where the women had to begin giving their presentations to both men and women because the men did not believe what their wives told them without verification. By involving locals in their projects, or living locally themselves, those working for Western development agencies can avoid these problems in their work. Understanding the local agriculture practices can make it easier for an agriculture worker to change detrimental practices. Working with local populations can also help to heal the wounds of colonialism and build trust between former colonies and their former colonizers. Eventually, this could lead to self-management of development, which most organizations claim as their ultimate goal.

The Role of Western Technology

Through this investigation of responses to hunger in the developing world, the issue of technology came up repeatedly. The role of Western technology has roots in the legacy of colonialism and the complex relationship between the developed world and the developing world. The West values technological advancement above most other things, which is made clear by the tensions that arose in different iterations of the agricultural approach to hunger. While some organizations think that the implementation of complex technology in resource-poor settings is the way to help bring people out of poverty, others find this an unacceptable approach because it cannot be sustained without significant input of resources and expertise from the West. The issue of sustainability, in a technical rather than environmental sense, is fiercely debated among those engaged in aid work. If the eventual goal is for local populations to be able to undertake the work themselves, then it is necessary to train them to use complex technologies if they are

indeed to be used. Early interventions often depended on technological interventions that were difficult to maintain; the saga of the water pumps in the village of Kunjani is a perfect example of this. The Europeans involved with SAED thought that it was necessary to import water pumps to help create more irrigated areas, but there was no process in place to repair them when they broke.⁴ When you create a reliance on a complex technology, you must also create a system to maintain that technology so that individuals can actually rely on it.

While technological interventions are sometimes presented as an antiquated mode of aid, which has been replaced by a modern focus on sustainable development practices, such interventions still exist. When visiting the village of Saare Gagna, I encountered a large structure that seemed quite out of place in the village. Upon asking about its origin, I learned that it was a solar-powered water pump that had been installed by a European oil company several years ago to help the villagers water their crops. After less than a year, the water pump fell into disrepair. Nobody in the village had been trained to repair it, and they had no way of contacting the company that had installed it. The project, which had surely come at great monetary cost to the company, was a complete failure; it was completely unsustainable. Had the company provided training to a few villagers on how to repair the structure, they could have circumvented the problems that arose. Instead, they essentially wasted money, as the villagers still hand-pump their water from the wells in the village and water their crops in the traditional way.⁵

Many scholars have commented on the issue of “appropriate technology,” or the idea that certain technologies should not be used in resource-poor settings because they

⁴ Adams and So, *A Claim to Land by the River: Rural Development in Senegal, 1720-1994*.

⁵ Spalholz, "Site Visit by Author."

are unsustainable or somehow not fit for the environment.⁶ Specific technologies were created to be implemented in the developing world that were between the extremely advanced technologies of the developed world and the more rudimentary technologies that they already possessed. The movement was quite popular for some time, as it seemed a middle ground that lessened the imposition of the Western pattern of development on the rest of the world, but it eventually fell out of favor. Some have argued that it was the American response to the attacks on American culture; by embracing mainstream technology America was reasserting itself as a world leader.⁷ Regardless of the reason for the fall of this movement in the mid-1980s, it has seen a recent resurgence. The concept of appropriate technology seems to solve the problem of extensive technological solutions to problems in the developing world, but it fails in that it is a missed opportunity to provide education to those in the developing world. While not all technologies would be useful or adequate for this setting, those that would work should be implemented. The solar water pump introduced to Saare Gagna could have fundamentally changed village life for the better, but it failed because nobody was educated in how to repair it. New technological advances are an opportunity for education in the developing world; people could be trained to maintain the machines, creating jobs and giving them a unique skill set that could help raise them out of poverty. The concept of appropriate technology misses the chance to use technology as an educational opportunity, and because of that it does not achieve full developmental potential.

⁶ Carroll Pursell, "The Rise and Fall of the Appropriate Technology Movement in the United States, 1965-1985," *Technology and Culture* 34, no. 3 (1993): 631.

⁷ *Ibid.*: 636.

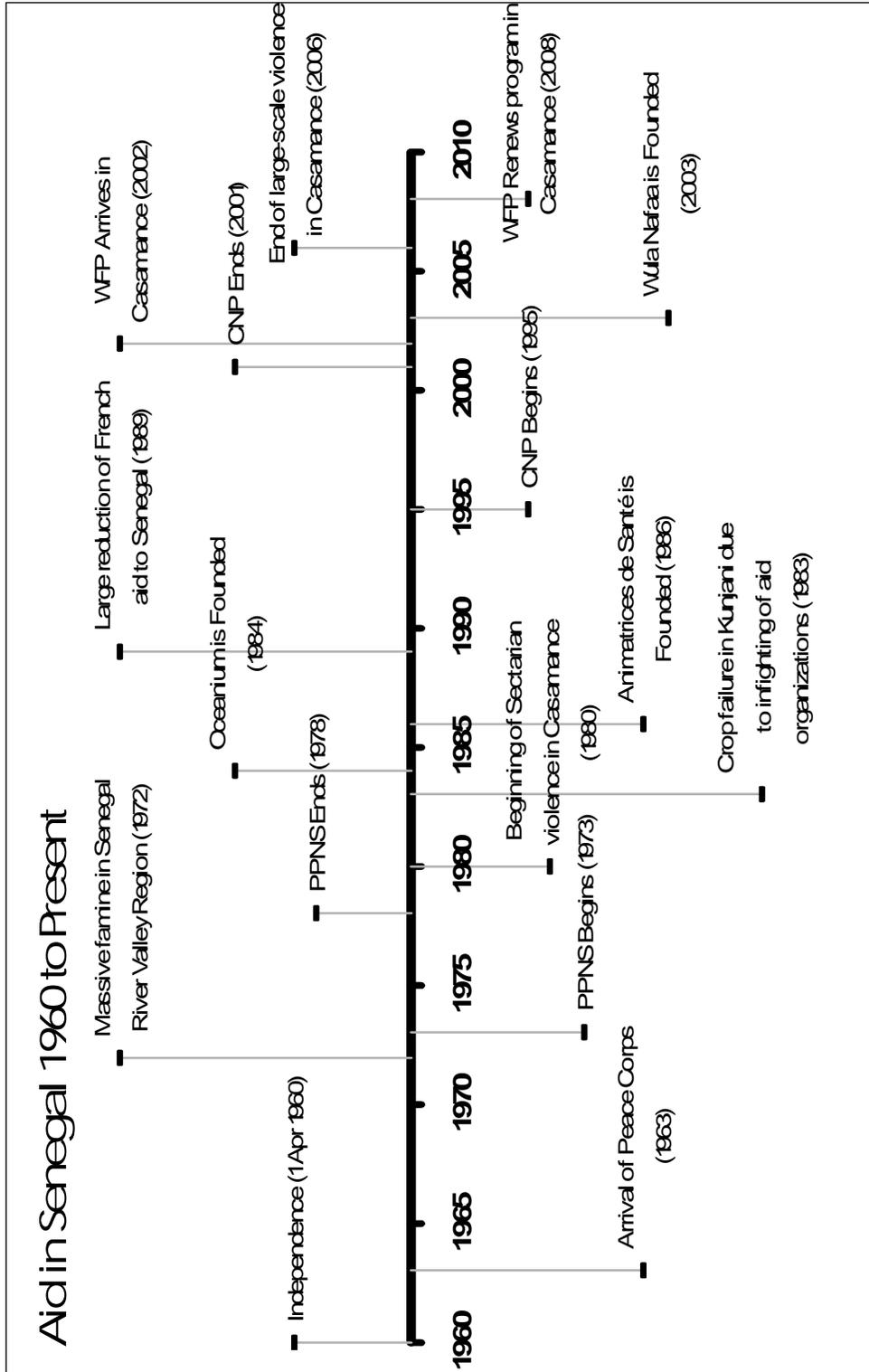
The United Field of Aid

This study has relied on the creation of artificial distinctions between different organizations and types of work in order to better understand the motivations and conceptualizations that lie beneath the surface. But let us not get caught up in the differences between humanitarian, agricultural, and medical approaches to aid. They are most assuredly quite different, but they are part of the same field, and larger truths can emerge from the examination of each type of intervention individually. Aid to combat the problems of hunger and famine is incredibly complex, which is befitting of a problem with so many causes. The issue is complicated even further by the different types of people involved in trying to find a final solution, each bringing his own cultural and experiential baggage and preconceptions to the table.

A solution to the problem of seasonal hunger will not be any easier to achieve than a solution to the problem of famine, but both are possible. It is necessary for people to share their knowledge, however, for this to happen. By involving local populations in their operations, organizations can benefit from a plurality of perspectives and may come closer to understanding how to combat hunger in the developing world. Furthermore, as more organizations partner with one another in their quest to eliminate hunger, they can learn from one another. Many of the case studies explored in this investigation involve multiple organizations working together on a single priority. Organizations have already begun to communicate with one another more regularly; the next step may be for organizations from different sectors to partner together. Perhaps the solution to the problem of hunger lies in an integrative approach which combines all three approaches to hunger: medical, agricultural, and humanitarian.

The field of aid has been shown to be extremely susceptible to trends in other areas; the changes that have occurred in the field due to neoliberalism and localism cannot be ignored. While the current trend may seem to be beneficial, it is likely also fleeting. It is difficult to predict what international movement will develop next, but it will probably have a profound effect on the types of interventions undertaken in developmental aid. An awareness of this susceptibility to external influence will be important in planning for relief and development aid in future years.

APPENDIX A TIMELINE OF SENEGALESE AID



APPENDIX B
MAP OF SENEGAL



¹ "Map of Senegal," Wikimedia Commons, <http://upload.wikimedia.org/wikipedia/commons/5/5e/Sg-map.png>.

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