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Case study: a sustainable livelihoods analysis of a non-governmental organization working with quinoa producers in the province of Chimborazo, Ecuador

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Case study: A sustainable livelihoods analysis of a non-governmental organization
working with quinoa producers in the province of Chimborazo, Ecuador

by

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A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degrees of
MASTER OF SCIENCE
MASTER OF COMMUNITY AND REGIONAL PLANNING

Co-majors: Sustainable Agriculture; Community and Regional Planning

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Iowa State University

Ames, Iowa

2015

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DEDICATION

Para mis papitos Paquita y Franklin, gracias por ser mi fuerza

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LIST OF ABBREVIATIONS

CAF- Corporación Andina de Fomento

COPROBICH- Cooperativa Productores y Comercializadores Organicos Bio Taita
Chimborazo

DFID- Department for International Development

FAO- Food and Agriculture Organization of the United Nations

FECD- Fondo Ecuatoriano de Cooperación para el Desarrollo

FUMDAMYF- Fundación Mujer y Familia Andina (Andean Women and Family
Foundation)

GDP- Gross Domestic Product

IDS- Institute of Development Studies

INEC- Instituto Nacional de Estadística y Censos

MAGAP- Ministerio de Agricultura, Ganadería, Acuacultura y Pesca

NGO- Non-Governmental Organization

NRAC- National Resource Advisors' Conference

SLA- Sustainable Livelihoods Approach

SLSO- Sustainable Livelihoods Support Office

SNI- Sistema Nacional de Información

UNDP- United Nations Development Programme

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ABSTRACT

Concerns with rural poverty in Latin America have resulted in the development and application of various poverty alleviation projects, programs, and policies. Many of these efforts focus on agricultural development since a large segment of the rural poor rely on small-scale agricultural production. Quinoa is one agricultural product that has attracted much attention in such efforts because of its high nutritional value and its high demand in many developed countries. Considerable research related to quinoa production and the resulting effects on producers have been conducted in the two leading exporting nations, Bolivia and Peru. However, there have been only a few studies on quinoa production in Ecuador, the third top exporter.

This thesis is a case study of Fundamyf, a non-governmental organization (NGO) that works with female quinoa producers and their families in Chimborazo, a province with the highest quinoa production in Ecuador. The research focuses on poverty-alleviation strategies of Fundamyf, most particularly how organic quinoa production enhances the well-being of farmers. The study identified several important trends. First, Fundamyf activities have evolved over time, and many of its efforts have enhanced the well-being of female producers. These include activities and workshops on women's rights and leadership skills that have improved their status, skills, and abilities to contribute to their communities. Second, the NGO has facilitated training workshops and assistance on organic quinoa production, directed toward reducing exposure to harsh chemicals and enhancing income opportunities for both producers and their families. The NGO's

nutrition-related training workshops have also promoted quinoa consumption among producers and families, beneficially reducing the consumption of less nutritional products. The NGO has, however, recently focused on income-generation activities by assisting the farmers with production, commercialization, and exportation of organic quinoa and by providing consulting services to other institutions, such as MAGAP, about quinoa and strategies for rural development. Such activities have raised questions about the NGO role as the intermediary between buyers and producers, and whether the income generated by the NGO is being passed on adequately to the producers.

CHAPTER 1

INTRODUCTION

Concerns regarding rural development continue in most parts of the developing world due to persistent and widespread poverty. Globally, rural populations represent the largest segment of people living in poverty; their major source of income often comes from small-scale agricultural production (International Fund for Agricultural Development 2010). In Ecuador, 42.03 percent of rural populations live in poverty, and about 52.7 percent of the total Agricultural Production is produced by rural families (Moreno, Rodriguez and Otero 2007). Because a large segment of the rural poor rely on small-scale agricultural production (International Fund for Agricultural Development, 2010), agricultural development is often seen as a means for reducing rural poverty.

Between the 1950s through the 1970s agriculture was often seen as the primary focus for rural development and poverty alleviation efforts in Ecuador and the rest of Latin America (Ellis and Biggs 2001). However, the battle against poverty intensified in Ecuador during the 1980s, when an emergence of neoliberalism and a resultant shift of governance from state and public institutions to private entities created an avenue for proliferation of non-governmental organizations (NGOs) (Iriye 2002). Neoliberal policies were implemented in many developing countries through the Washington Consensus policies that included transferring state-run enterprises to private investors and increased the focus on agricultural development, particularly on the exportation of agricultural products (Arestis 2004).

Proliferation of NGOs has been popular among Latin American countries, particularly since they have been perceived to increase empowerment of marginalized groups through grassroots and bottom-up efforts, in contrast to previous top-down governmental efforts (Iriye 2002). These grassroots efforts continued into the 1990s and 2000s, but with an increased participatory focus, an important aspect of recent developmental projects since they seek to empower rural people to assume control of priorities (Ellis and Biggs 2001). While rural development and poverty alleviation issues have been addressed through agricultural production by various nations for many decades, the loss of trust in governmental organizations in the 1980s and increased globalization were the principal influences in a change toward non-governmental organizations working as actors and implementers of such agricultural strategies (Iriye 2002).

Ecuador, the province of Chimborazo particularly, has encountered issues related to rural poverty that have been addressed through agricultural production by both governmental and non-governmental organizations (INEC 2013; Moreno, Rodriguez and Otero 2007). Many times neoliberal policies, through grassroots strategies, have placed non-governmental organizations as significant actors in poverty-alleviation efforts among rural populations. Quinoa production and sales have been a popular rural poverty alleviation strategy by NGOs in Chimborazo since it can be produced in harsh environments and has high profits and worldwide demand (Holston 2006).

While NGOs attempt to replace and supplement government programs, which are often perceived as ineffective and untrustworthy, the effectiveness and overall efficiency of NGOs remains unclear. This research study analyzes the poverty alleviation efforts of Fundamyf, an NGO supporting small-scale female quinoa producers in the Chimborazo

province of Ecuador. It specifically examines Fundamyf's evolution and poverty alleviation projects that seek to enhance the quality of life for quinoa producers and their communities. The research answered three central questions: 1) What is the nature of Fundamyf (goals, history, etc.)?; 2) What activities does Fundamyf perform to attain its goals (projects, programs, etc.)?; and 3) How effective is Fundamyf in achieving its goals (benefits to producers)?

The research findings indicate that Fundamyf's work has improved the female producers' opportunities to work, lead, and make decisions in their communities. Training workshops in organic production and nutrition improvement have also been important in the producers well-being since now producers and the environment are not exposed to harsh chemicals and producers are aware of benefits and innovative ways of eating their highly nutritious quinoa crop. However, the findings also indicate that, due to limited external funding opportunities in Ecuador, the NGO has recently focused on income generation strategies in order to fund its projects. The two NGO's income generation strategies are consulting services to other organizations about developmental strategies and organic quinoa production as well as assisting producers in the production, commercialization, and exportation of quinoa.

While the income of producers has increased in response to the NGO's programming and services, the NGO has essentially become an intermediary by purchasing the producers' crop and selling it to national and international buyers, which raises questions about the NGO acting as an intermediary and the producers becoming dependent from the NGO's services. Also, although a representative of the NGO mentioned the income generated is used in the organization developmental projects, it is unclear how

those funds are being used and raises questions about transparency. Overall, this case study contributes valuable and unique findings to the research literature through exploring Fundamyf's rural poverty alleviation efforts in Ecuador through agricultural production strategies.

Fundamyf

Fundamyf is a local NGO in Ecuador that assists vulnerable groups, including women and indigenous populations, and promotes the implementation of sustainable projects that are inclusive and socially equitable (Fundamyf n.d.). The NGO has empowered approximately 10,000 indigenous women in the province of Chimborazo since it started operating there (Fundamyf n.d.). Its main activities include facilitating micro-credit and helping with the production, commercialization, and exportation of ancient grains such as quinoa and amaranth (NESsT 2009).

Quinoa producers in Ecuador are typically small indigenous family farmers, and are among the poorest and most vulnerable people in the country (Hoy 2011). Ironically, quinoa is one of the most profitable crops in the agricultural marketplace because of its high nutritional value and consequently increasing demand from health-conscious consumers from developed nations such as Canada and the United States (Reyes and Oliver 2013). This research has been conducted in Chimborazo, the province with the highest quinoa production in Ecuador, the world's third largest exporter of quinoa (El Telegrafo, 2013).

Objective and Research Questions

The objective of this research is to describe the role and effectiveness of a non-governmental organization by assessing its work through the Sustainable Livelihoods Approach (SLA) when working to alleviate rural poverty through the management of agricultural production. SLA is a holistic approach that analyzes and addresses poverty by assessing and maintaining both short and long-term assets, strengths, or capabilities that people require for living (Flora and Flora 2013; Chambers and Conway 1992). This research will attempt to understand, analyze, and determine whether the agricultural programs of Fundamyf help to alleviate rural poverty among quinoa farmers in Chimborazo, Ecuador.

Previous studies conducted in other top quinoa-exporting countries such as Bolivia and Peru have shown that the grain's high price has tended to compel farmers to sell it rather than consume it, as was historically done (Evans 2013). The implications of this change in terms of both food security and environmental impact are significant but remained unexplored (Flores, 2013). Because Ecuador is the world's third largest exporter of quinoa, an understanding of the impact of these changes on rural development and poverty reduction is critical in many ways. For example, while Bolivia and Peru have achieved fairly similar economic and social status, the levels of production and technology in Ecuador are not as highly developed as in those countries (DePillis 2013).

Additionally, even as the Ecuadoran government has invested in the promotion of quinoa production and consumption, a result of the 2013 International Year of Quinoa in 2013 sponsored by the United Nations Food and Agriculture Organization (MAGAP

2013), quinoa production efforts in Ecuador have historically been mostly implemented by NGOs. The replacement of governmental by nongovernmental organizations with regard to the production of quinoa, a highly profitable and demanded crop whose production has sometimes diminished producers' well-being in other nations, makes it important to understand the NGO's role in alleviating long-term Ecuadorian poverty. This research explores how and why this NGO was created, the main projects it implements, and the effectiveness of their programming. Specifically, this research addresses the following central questions:

1. What is the nature of Fundamyf (goals, history, etc.)?
2. What activities does Fundamyf perform to attain its goals (projects, programs, etc.)?
3. How effective is Fundamyf in achieving its goals (benefits to producers)?

Personal Significance

I am from Ecuador, the third largest quinoa exporter in the world, and the majority of quinoa production is concentrated in my home province, Chimborazo (El Telegrafo 2013). Quinoa has been the main staple food in my family, province, and country for many generations and represents an important cultural symbol due to its nutritional content and significance in the history of the indigenous people and their culinary dishes.

Agricultural production, including quinoa production, is one of the major sources of income in Ecuador. Quinoa production represents a significant economic opportunity for farmers since it offers the opportunity of a good financial return in comparison to other crops (Holston 2006). Poverty is prevalent in rural Ecuador, and projects related to quinoa

production, commercialization, and exportation have been used by NGOs in Chimborazo to reduce rural poverty.

While my personal connections to quinoa and its importance in the development of my country have affected the inquiries and interests in this research, the ultimate significance of the study goes beyond the personal satisfaction. The analysis and findings may contribute to the understanding of how NGOs work in producing quinoa, a high-demand product, can become an avenue to Ecuador's development and poverty reduction. The findings of the study can be utilized for making policy, logistical, and infrastructural recommendations for quinoa production as a strategy for poverty alleviation in rural areas, the major locations of Ecuadorian poverty.

Thesis Outline

The remainder of the thesis will be structured as follows. Chapter 2 provides an overall description and impacts of NGOs on poverty alleviation, with a specific focus on Latin America. It will also explore the Sustainable Livelihoods Approach and its usefulness in the evaluation of NGO work in alleviation of poverty. Chapter 3 presents a description of the area studied as well as the general agricultural sector in Ecuador; it will also describe the study's methods of data collection and analysis. Chapter 4 presents the study's findings, including evaluation of the impact of the NGO's work on alleviating poverty among families engaged in small agricultural activities. Chapter 5 includes discussions and conclusions representing the key findings, constraints of the study, and possible future research.

CHAPTER 2

LITERATURE REVIEW

This chapter explores relevant literature on NGOs; and is divided into three sections. First, a brief description of the history of non-governmental organizations is presented, with an emphasis on their evolution both around the globe and in Latin America, including their work on poverty alleviation and the use of the Sustainable Livelihoods Approach. The second section explores the development and evolution of the Sustainable Livelihoods Approach. The final section examines the SLA as a tool for evaluating non-governmental organizations' poverty alleviation efforts.

Non-Governmental Organizations

Background

Governments and private organizations around the globe have focused their efforts on addressing social problems ranging from war to social inequality to environmental destruction, through implementation of policies, programs, and projects with such emphasis. Global civil society and transnational civil society are popular terms used to describe actors such as “individuals and organizations other than sovereign states [who] come together and engage in activities separate from those pursued by national governments” (Iriye 2002, 7). Institutions representing global society/transnational

societies include Non-Governmental Organizations (NGOs), which are non-profit organizations that work for humanitarian relief, cultural exchange, peace and disarmament, developmental assistance, human rights, environmentalism, etc. (Iriye 2002).

The creation and proliferation of NGOs has continued throughout time (Bebbington, Hickey and Mitlin 2008), but they have most notably advanced following significant world conflicts such as World War I, World War II, and the Cold War (Iriye 2002). NGOs were initially created around the globe to alleviate suffering among victims of traumatic events. A determination to alleviate problems related to wars was demonstrated at a San Francisco meeting organized by the United Nations¹ shortly after World War II to endorse human rights, promote social progress, improve standards of living, practice tolerance and peace, and enhance economic and social advancement. During that meeting, forty-two existing NGOs became members of the United Nations (UN) and were important agents with respect to the functioning and existence of the UN (Iriye 2002).

Although the initial work of NGOs was to address war-related issues, assistance with human rights, development, and protection of the environment became prominent issues in the 1950s. That decade saw an increase in availability of external funds to assist NGOs and their work. Iriye (2002) stated, “during the 1950s the main source of funds [for NGOs] was the World Bank, which established the International Finance Corporation in 1956 to subsidize private enterprise projects in Third World Countries” (78).

¹ The United Nations is an institution that came into existence through formal agreements among nations and governments. This agency was formally developed in October of 1945.

NGO contributions to human welfare were expanded in the 1960s. According to the Union of International Associations (1985), the number of international NGOs more than doubled, from 1,268 to 2,795, between the 1960s and 1970s. Many of the international NGOs expanded and opened branches in developing countries in Asia, Africa, and Latin America (Iriye 2002). During the twentieth century, the proliferation of NGOs was significantly influenced by increased global trade and communication and the worldwide development of a network of goods, capital, and labor. Globalization allowed NGOs to move across borders through the creation of branches in nations in need of humanitarian relief. Additionally, NGOs developed in response to the perception of governments being ineffective in poverty reduction efforts. Overall, increased global trade and communication resulted in economic growth, providing opportunities to individuals and corporations for financing private initiatives, including those of philanthropic organizations (Bebbington, Hickey and Mitlin 2008).

International NGOs represented a strategy by people and countries with shared interests to solve problems through pooling of resources and creating international cooperation, rather than relying on individual nations' independent efforts (Iriye 2002). Although much global effort was directed toward addressing issues related to war and poverty, the gap between rich and poor countries widened during the 1960s, called "a decade of development" by the United Nations (Iriye 2002), and marked by wealthy nations assisting less-developed nations. Much of the developmental assistance around the globe was by NGOs, who sought to provide assistance in a variety of ways, such as

American Near East Refugee Aid², Project Concern International³, and Lutheran World Relief⁴; NGOs often worked in partnership with agencies, including the Peace Corps⁵, International Development Agency⁶, UNESCO⁷, and UNICEF, in the United States, Canada, Australia, and Europe⁸. Projects were located in developing countries and focused on issues related to environmental degradation, health, hunger, and poverty (Iriye 2002).

The growth of NGOs continued in the 1970s; this growth was attributed to a loss of faith in governments and included growth of civil society, involving both non-state and non-territorial actors, that undertook duties of weak, corrupt, or inefficient governments (Jokisch 2002). The characteristics of the work of NGOs during the 1970s included the empowerment of marginalized groups through grassroots and bottom-up efforts, in contrast to previous top-down governmental efforts. The proliferation of NGOs continued around the globe, and by 1984 their number increased to 12,686 organizations (Iriye 2002). In general, the work of NGOs throughout history has aimed to assist communities, cities, and nations, but its intensity and focus has varied among organizations (Iriye 2002), many of them focusing on different issues and having different levels of focus (international,

² A “non-profit corporation organized for the purposes of extending direct financial assistance and/or gifts in kind to Palestinian-Arab refugees and other needy individuals in the Middle East” (NGO-Monitor 2014).

³ The mission is to “prevent disease, improve community health and promote sustainable development worldwide” (Project Concern International 2014).

⁴ Is a “non-profit organization that works with local partners to provide lasting solutions to poverty, injustice and human suffering” (Lutheran World Relief 2014).

⁵ Established in United States in 1961 to recruit and send volunteers to engage in humanitarian efforts (teachers, social workers, and agricultural experts) to countries in Latin America, Africa, the Middle East, and Asia (Iriye 2002).

⁶ Established in Canada in 1968 to provide developmental assistance to countries in Southeast Asia (Iriye 2002).

⁷ United Nations Educational, Scientific, and Cultural Organization established in United States in 1946 to establish cultural affairs, educational exchange, and environmental awareness through the partnership of nations (Iriye 2002).

⁸ United Nations International Children’s Emergency Fund established in United States in 1946 to initially protect children in war areas and later to provide health benefits to children and mothers in developing nations (Iriye 2002).

national, local, etc.) (Bebbington, et al. 1993). Since this study focuses on a specific agriculture-oriented NGO in Latin America, it is important to more closely examine those NGOs who focus on agricultural and rural development in Latin America.

Non-Governmental Organizations in Latin America

The presence of NGOs around the globe has expanded throughout the years, but their developmental assistance through bottom-up efforts became popular in Latin America during the 1970s and, importantly, “non-governmental organizations were making important contributions to political assistance, social welfare and grassroots action... but it was only in the late 1980s that they became of age, and into vogue” (Bebbington, et al. 1993, 1). The proliferation of NGOs in Latin America during the 1970s and 1980s was influenced by the implementation of neoliberal policies as well as by governments’ inability to meet the needs of their nation. Additionally, Latin American civil society was influenced by the growing commitment to the poor by the Catholic Church⁹, socially inequality-related agrarian reform changes¹⁰, and campesino movements¹¹. This political and social changes gave private organizations an opportunity, particularly by NGOs, to focus on the alleviation of rural poverty and social development by advocating sustainable

⁹ The Church focusing on what is called Liberation theology focusing on self-help actions and formation of grassroots organizations promoting democracy (Bebbington, et al. 1993).

¹⁰ Agrarian reform provided economic modernization and political stabilization to resolve social conflicts in Latin America. The reform included distribution of land to resource-poor producers, while at the same time increasing the number of farmers requiring services from the government (Bebbington, et al. 1993).

¹¹ Indigenous movements were nurtured by growing demands for land and the effect of leadership formation that created expectations of a more equitable and participatory development. Leadership and inclusive thinking were important for indigenous populations in many Latin American countries since throughout history those populations have been socially marginalized and have required socially-equitable attention (Bebbington, et al. 1993).

agricultural programs while facing competitive and environmental pressures (Bebbington, et al. 1993).

Many organizations working in Latin American countries have considered agriculture to be a primary issue related to rural development and technological improvements because it can support growth and poverty alleviation (Bebbington, et al. 1993). The work developed by NGOs assumes that rural development is an important agent in improving technologies that increase efficiency and competitiveness of producers in the market, particularly under harsh economic and environmental conditions (Bebbington, et al. 1993).

NGOs have sometimes served as replacements for government and as vehicles for implementing programs previously executed by the state (Bebbington 1997). Although the work of NGOs has sometimes supplanted governmental action, the literature suggests that, to improve governmental administrative structure and NGOs' positive impact, cooperation between NGOs and the state is necessary (Bebbington, et al. 1993). Cooperative work in Latin American countries has tended to focus on decentralization and democratization, particularly through NGOs assisting local governments in implementing developmental plans and allocating resources. Such interactions have demonstrated flexibility of NGO-state relationships at the local level and optimism among NGOs with respect to their ability to participate in policy change and implementation. However, even though governments may implement some of NGOs' ideas, their opportunities for policy change and implementation have often remained limited, positioning NGOs as nothing more than consultants rather than as main actors in a country's transformation (Bebbington 1997).

Although NGOs were created to empower vulnerable groups and reduce poverty, often through partnering with local governments to create programs and projects, they have

received criticism related to their legitimacy and lack of long-term impact (Bebbington 1997). Legitimacy issues are related to control of resources, e.g., relatively few resources may actually reach the field, and staff may earn too much (Bebbington 1997). Such criticisms have led to perceptions of weak legitimacy and at times led the closure of NGOs. On the other hand, issues related to long-term impact include their dependency on funding and contracts from public and private donors, sometimes leading to loss of highly-trained staff as well as short and limited flexibility in project implementation to support long-term effectiveness (Bebbington 1997). As Edward Abbey (2008) said,

funding is issue based and conditional...NGOs learn to accommodate varied donors funding for certain issues [because] one year [it] may stop as new priorities arise. [Also] donor conditions on spending do not insure maximum quality or local expertise or efficiency [and sometimes] donors lack of technical understanding often leads to inappropriate [application of] projects [that are] not based on the preferences of the poor (374).

As a means for mitigating funding issues, many NGOs have found alternative sources of funding, e.g., by becoming a development consultant agency, thereby blurring the distinction between a commercial and a social organization (Bebbington 1997). A commercial organization's primary goal is to make a profit from their goods and/or services, as opposed to that of a non-profit organization focusing on assisting communities while generating sufficient income to maintain its operations (Bebbington 1997). NGOs typically receive funds from external sources such as government and private donor to develop programming (Abbey 2008). However, Bebbington (1997) suggests that if NGOs begin to generate income, they should be considered to be social enterprises, which are organizations that aim to create social programming that is funded through self-generated income. While an NGO may have previously received funding from outside sources, as a

social enterprise it would be able to engage in market-oriented operations to generate income with which to finance its developmental social work. Thus, a combined commercial and social focus moves an NGO onto more sustainable ground since it can focus on longer-term options rather than only on immediate funding-driven choices (Bebbington 1997). The social enterprise status therefore has become a popular NGO response to issues related to funding because it provides NGOs a more sustainable way of supporting their development work. However, an organization involved in income-oriented work can no longer be considered to be an NGO; this orientation would require them to advance a new sense of institutional mission and goals consistent with the new model.

The development of non-governmental organizations has traditionally been influenced by the failure of the state to meet people's needs (Bebbington 1997), which has shaped NGOs goals and efforts from the beginning. Although many NGOs because of funding limitations have been restricted in terms of projects and programs they implement and durations of such projects, self-funding initiatives have sometimes been created to enable them to maintain their social work. However, an actual source of funding is often less important than a commitment to the empowerment of local groups. An NGO's commitment is to "be willing to share with local groups not only the management of project or programme, but also the wider questions of the NGO's overall agenda and in particular whether it should continue to be present in a particular area" or whether it should withdraw if no longer needed (Farrington, et al. 1993, 115).

The work of NGOs on empowering people is often perceived as temporary since they focus on strengthening local organizations to a point where locals can and want to accomplish the work performed initially by the NGO (Farrington, et al. 1993). However,

withdrawing assistance is itself often a goal because self-sufficiency can promote long-term thriving of social groups; this is more attainable in theory than in practice, e.g., “very few NGO projects from those documented across...[Latin America] appear to have reached this stage” (Farrington, et al. 1993, 116).

NGOs work has a diverse focus, ranging over topics such as humanitarian relief, developmental assistance, human rights, and environmental issues (Iriye 2002), but generally, location, targeted groups, funding, partnerships, etc., have shaped the evolution of NGOs’ work, reflecting their diversity and their differing responses to various conditions. This diversity has shown that there is no single model for NGO poverty-alleviation efforts; individual circumstances shape their goals, work, and effectiveness. Overall, as NGOs seek to reduce poverty around the globe using a variety of methods and programs. One analytical tool for assessing the effectiveness of NGO poverty alleviation strategies is the Sustainable Livelihoods Approach (SLA), which will be explained next.

Sustainable Livelihoods Approach

Background

The Sustainable Livelihoods Approach (SLA) can be used to examine the well-being of people and communities through measuring of capitals¹² (e.g. financial, social, human, natural, and physical) and explore how these capitals relate to sustainable practices of living (Flora and Flora 2013). The SLA was formally developed by the Institute of

¹² Capital represents invested resources that create new resources (Flora and Flora 2013).

Development Studies (IDS) in 1996 (Carney 1998) and published in 1998 by Scoones (1998). There were, however, a number of reports and ideas during the preceding years that influenced SLA development, as will be described next.

In the late-1980s and early-1990s, two reports influenced the Sustainable Livelihoods Approach (SLA) (Solesbury 2003): the Brundtland Commission Report published in 1987 by the World Commission on Environment and Development and the Human Development Report published in 1990 by the United Nations Development Programme (World Commission on Environment and Development 1987; United Nations Development Programme 1990). Both reports focused on people in poverty, their needs, leadership opportunities, and sustainable practices. The Brundtland Commission Report described sustainable development in the global political agenda as follows:

development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of ‘needs’, in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs (World Commission on Environment and Development 1987, 43).

Although sustainable development was suggested by the described reports, the concept of sustainable livelihood was attributed to Chambers at the Institute of Development Studies when he and Conway, in initiating SLA construction, defined livelihoods as:

capabilities, assets (stores, resources, claims and access) and activities required for a means of living; a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation (Chambers and Conway 1992, 7).

The development of capabilities, assets, and activities focuses on individual and rural household health, education, and well-being that is different from previous macroeconomic developmental thinking (Solesbury 2003). Previous rural analyses were mostly focused on industrialized agricultural production, employment, and income generation that did “not fit or capture the complex and diverse realities of most rural life” (Chambers and Conway 1992, 4). The SLA as a poverty alleviation strategy was first implemented in the 1990s by several agencies, including the United Nations Development Programme, the Department for International Development (DFID), and the Institute of Development Studies (IDS). The SLA gained traction with the help of a 1997 White Paper that focused on the United Kingdom’s commitment to eliminate poverty. This document’s main objectives were the creation of sustainable livelihoods, human development, and environmental conservation (Solesbury 2003). By 1998, an initial analytical framework was presented by Ian Scoones, a member of the IDS, in his book *Sustainable rural livelihoods: a framework for analysis* (Scoones 1998) (Figure 1).

Although this framework was published in 1998, the idea was initiated in 1996 by the Institute for Development Studies (IDS) and discussed at a *National Resource Advisors’ Conference* (NRAC) (Carney 1998). The Department for International Development (DFID), a United Kingdom governmental department working on the elimination of poverty and implementation of sustainable practices internationally, formally began SLA implementation in 1998; it was managed by Michael Scott and used by the DFID headquarters and outside agencies, including non-governmental and donor agencies. By 1999, the Sustainable Livelihoods Support Office (SLSO) has been created within the DFID. The SLSO promoted SLA usage through aid support, creation of workshops and

conferences, publication of documents such as the 1999, 2000, and 2001 *Sustainable Livelihoods Guidance Sheets*, and creation of a SLA website¹³ (Solesbury 2003).

Source: (Scoones 1998)

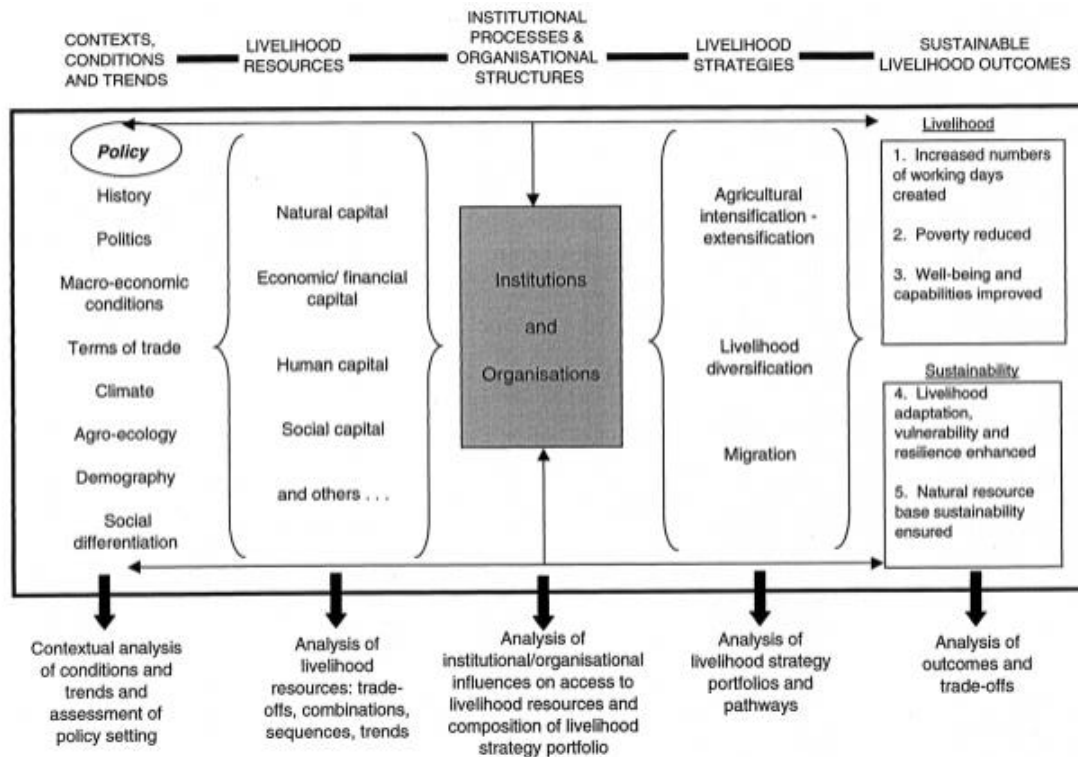


Figure 1. The SLA framework developed by IDS.

In 2000, a second White Paper was published that supported ideas on poverty alleviation efforts from the 1997 White paper, but with a stronger focus on globalization (Solesbury 2003). The SLA, although not widespread until the late-1990s, built on established developmental perspectives and reorganized them in new and attractive paradigms since it centered on people and on utilizing technology and resources for both

¹³ This website (www.livelihoods.org) published news, policy development, links to organizations, etc. and was managed by the Institute for Development Studies.

short and long-term well-being (World Commission on Environment and Development 1987). Overall, this approach focused on human well-being and sustainability rather than previously-applied large-scale economic growth approaches (Solesbury 2003).

Structure

Widespread knowledge regarding the SLA began to emerge in the late 1990s, focusing on understanding people's vulnerabilities, assets, and resources necessary for their survival as well as on their goals, hopes, and dreams. The SLA additionally focuses on understanding local and governmental policies that affect livelihoods and opportunities as well as pressures and restrictions resulting from such policies. In the words of the 2001 *Sustainable Livelihoods Guidance Sheets* of the Department for International Development,

attempts to summarise and share emerging thinking on the sustainable livelihoods approach. It does not offer definitive answers and guidelines. Instead, it is intended to stimulate readers to reflect on the approach and make their own contributions to its further development (Department for International Development 2001, 3).

This framework was proposed in a 2001 DFID document, although with a different design than that presented in 1998 by Scoones (1998); it basically reflects the same concept, i.e., the description of the complexity of livelihoods as well as relationships among them (Figure 2).

Source: Modified (Department for International Development 2001)

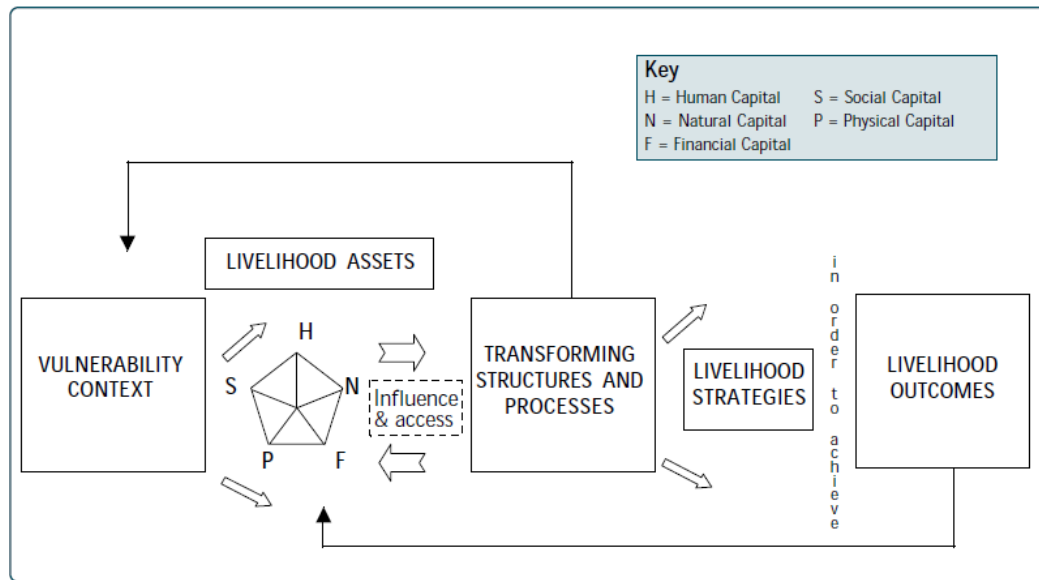


Figure 2. Sustainable Livelihoods Framework.

The Sustainable Livelihood Framework defines vulnerability to be the susceptibility of populations to the external environment (economy, technology, environment, etc.). The livelihood assets are described as people’s important capitals, including Social¹⁴, Human¹⁵, Natural¹⁶, Financial¹⁷, and Physical¹⁸ capital (Department for

¹⁴ **Social capital:** “social resources upon which people draw in pursuit of their livelihood objectives...[The strengthening of this capital can be achieved through] networks and connectedness, membership of more formalized groups, and relationships of trust, reciprocity, and exchanges” (Department for International Development 2001, 21).

¹⁵ **Human Capital:** “skills, knowledge, ability to [work] and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives...[The strengthening of this type of capital can be achieved through] improved access to high-quality education, information, technologies, training, and better nutrition and health” (Department for International Development 2001, 19).

¹⁶ **Natural capital:** “term used for the natural resource stocks from which resource flows and services (e.g. nutrient cycling, erosion protection) useful for livelihoods are derived...[The strengthening of this capital can be achieved through] more secure access to, and better management of, natural resources [e.g.] positive correlation between higher income and investment in natural capital” (Department for International Development 2001, 23).

¹⁷ **Financial capital:** economic “resources that people use to achieve their livelihood objectives...[The strengthening of this capital can be achieved through indirect means as] secure access to financial resources [i.e.] support to develop financial services organizations [and] marketing” (Department for International Development 2001, 28).

¹⁸ **Physical capital:** “basic infrastructure and producer goods needed to support livelihoods...[The strengthening of this capital can be achieved through] better access to basic...infrastructure” (Department for International Development 2001, 25).

International Development 2001); other models include more or fewer capital categories (Flora and Flora 2013; Scoones 1998). This model was selected because of its common use in programs and projects employed by the Department for International Development, which illustrates its usefulness in a variety of contexts. Livelihood strategies are described as the activities, their combination, and selections made by people to achieve their personal and family goals. Finally, livelihood outcomes are defined as people's goals and priorities when organizing their livelihood strategies; these outcomes include reduction of poverty, increasing income, and improvement of food security and sustainability (Department for International Development 2001).

The Sustainable Livelihoods Approach has six core principles to help interpret and identify information related to the well-being of communities:

1. *People-centred* is the core idea since it focuses on people's livelihoods and how they change, while involving and respecting people's views and goals (Department for International Development 2001).
2. *Holistic* is a core principle that tries to find a comprehensive understanding of how people's livelihoods are developed and how outside factors can be shaped to produce beneficial outcomes (Department for International Development 2001).
3. *Dynamic* is a core principle because it "explicitly recognizes the effects on livelihoods of external shocks and more predictable, but not necessarily less damaging, trends. Attempting to capture and build upon such livelihood dynamism significantly increases the scope of livelihood analysis" (Department for International Development 2001, 8).

4. *Building on strengths* is a core principle since it acknowledges people's potentials from social networking, available resources and infrastructure, and factors that have the potential to alleviate poverty (Department for International Development 2001)
5. *Micro-macro links* is a core principle since it "attempts to bridge...a gap [between macro and micro levels], emphasizing the importance of macro level policy and institutions to the livelihood options of communities and individuals" (Department for International Development 2001, 8).
6. *Sustainability* is essential to the approach since livelihoods "are resilient in the face of external shocks and stresses, are not dependent upon external support (or if they are, this support itself should be economically and institutionally sustainable), maintain the long-term productivity of natural resources, and do not undermine the livelihoods of, or compromise the livelihood options open to others" (Department for International Development 2001, 9).

Overall this framework was not specifically created as a set strategy for poverty alleviation; it is instead a tool used to understand people's livelihoods and the environment in which they live in order to take appropriate steps for poverty reduction by people and local organizations (Department for International Development 2001).

SLA Usefulness on NGO Evaluation

The adoption of the "sustainable livelihoods approach provides a way to improve the identification, appraisal, implementation, and evaluation of development programmes so that they better address the priorities of poor people, both directly and at a policy level"

(Department for International Development 2001, 6). The Sustainable Livelihoods Framework has not only assisted in the analysis of poor people's livelihoods, but also has assessed existing poverty reduction efforts and their effectiveness around the globe (Department for International Development 2001).

Because of SLA's usefulness in assessing existing poverty alleviation efforts and their effectiveness, the SLA can be helpful at analyzing the work of public and private organizations such as non-governmental organizations (NGOs). For example, Hughes (2006) analyzed how SLA can be useful to NGOs for poverty alleviation efforts in Peru. The research illustrates that although NGOs in Peru have not formally applied the SLA, some of the principles and strategies are used and that the organizations "are striving for the same ends as SLA of poverty reduction and better quality of life for the people with whom they work" (Hughes 2006, 54). Overall, the research showed that because many of Peru's NGO focus on similar poverty alleviation goals as the SLA, then their work and effectiveness can be assessed using ideas from the framework. Even though NGOs may not formally use the SLA for poverty reduction efforts, it can be a useful tool for understanding their work and how it contributes to peoples' livelihoods.

Another study focused on the evaluation of NGOs poverty alleviation work through the SLA, particularly in "what projects are implemented by NGOs in the rural areas and to find out if they are improving...livelihoods" (Nyathi 2012, 45). Overall, this study concluded that many strategies have failed to alleviate poverty and stressed that NGOs can use the SLA as it focuses on existing assets to increase livelihoods outcomes (Nyathi 2012). The understanding of institutional efforts can help identify opportunities and barriers to sustainable livelihoods. "Since formal and informal institutions...mediate access to

livelihood resources and in turn affect the composition of portfolios of livelihood strategies...an understanding of institutions and organizations is therefore key to designing interventions which improve sustainable livelihood outcomes” (Scoones 1998, 12).

To analyze the effectiveness of the non-governmental organization work, two assessments have been implemented. First, a comparison of the programs implemented by the NGO to the programs expected in each capital, in order to strengthen the capital, has been included. Second, after assessing what programs the NGO focuses on, a scale of *high*, *medium*,

Table 1. Capital indicators of each capital in the Sustainable Livelihoods Approach.

Capital	Indicators
Natural	Physical access to target resource
	Control over the target resource
Physical	Means of transportation
	Ownership to equipment
Human	Health and nutrition
	Access to information
Financial	Household income level
	Household savings
	Access to credit
Social	Endogenous social resources
	Exogenous social resources

Source: Modified (Kusters, et al. 2006)

and *low* that “considers whether and to what extent” the work of the NGO has improved people’s livelihoods was applied (Kusters, et al. 2006, 2). The Sustainable Livelihoods Approach was used to guide the selection of indicators that are shown in Table 1 (Kusters, et al. 2006, 2). The indicators were selected to show the level of improvement or inactivity (denoted as *yes* or *no* in the analysis) of the capitals that influence the livelihoods or quality of life of people. For instance, a scale of *high* indicates that all the NGO’s programs have improved the capital, and hence the indicators of each capital, *medium* indicates that not all the NGO’s programs have improved the capital, and *low* indicates that the NGO’s programs have led to little improvement in the capital (Le Coq, et al. 2011; Soares, et al. 2011). The effectiveness assessment has been included in each capital of the findings section.

Conclusion

NGOs have been focused and helpful with poverty alleviation around the globe and the SLA is a useful analytical tool for assessing the poverty alleviation work of organizations. This research explores the evolution of Fundamyl and harnesses the SLA to interpret their poverty alleviation efforts with quinoa producers in the province of Chimborazo, Ecuador.

CHAPTER 3

METHODOLOGY

This research is a case study of a non-governmental organization (NGO) called Fundamyf that works with quinoa producers in the province of Chimborazo, Ecuador. It is a qualitative case study since it studies a contemporary phenomenon and seeks meaning and understanding of the participants' perspectives (Merriam 2009). Specifically, this research seeks to understand the poverty alleviation efforts and impacts of the NGO. The Sustainable Livelihoods Approach will be used as an analytical framework for assessing whether Fundamyf's poverty alleviation efforts are effective. This chapter discusses the study area, the main participants in the study, research design and data collection methods, and methods of analysis.

Study Area

The research focuses on poverty alleviation efforts of Fundamyf for quinoa producers in the province of Chimborazo, Ecuador (Figure 3 and Figure 4). Ecuador's economy is primarily agricultural, and agricultural exportation is the second largest source of income and employment after petroleum (Banco Central del Ecuador 2014). About ten percent of Ecuador's Gross Domestic Product (GDP) is from agricultural production, and that activity employs about 28.3 percent of Ecuadorians (Jorge Glas 2014). Agricultural production is accomplished principally by small family farmers; they account for about

52.7 percent of the country's total agricultural production (Moreno, Rodriguez and Otero 2007).

Source: (Ezilon 2014)



Figure 3. Map of South America highlighting Ecuador.

Source: (Ezilon 2014)



Figure 4. Map of Ecuador highlighting the Province of Chimborazo.

Although agriculture contributes significantly to the economy of Ecuador and employs many rural families, poverty is concentrated in rural areas, especially among farmers. Approximately 25 percent of the country's total population was considered poor in 2013, but more than 42 percent of the rural population lived under conditions of poverty

(INEC 2013). Since agriculture is a major source of employment in rural Ecuador, many rural development and poverty-alleviation efforts focus on agricultural production (Ellis and Biggs 2001).

Because of the importance of agriculture in many developing countries, many poverty-alleviation programs and projects regard agricultural production as a tool for poverty reduction (Ellis and Biggs 2001). In the case of the province of Chimborazo in Ecuador, quinoa has become a central focus in poverty alleviation efforts over the last fifteen years (Fundamyl n.d.; NESsT 2009) because of its good financial return and high global demand (Holston 2006). Quinoa is an ancient crop that has long been produced and consumed by countries in the Andean mountains of South America such as Ecuador, Peru, Argentina, Chile, and Bolivia, but the crop has gained increased world attention because of its high nutritional content (Brady, et al. 2007). It is a popular grain choice, especially among health-conscious consumers in developed nations, including United States, Canada, and European countries (Reyes and Oliver 2013). Ecuador is the third largest quinoa exporter in the world after Bolivia and Peru, respectively (El Telegrafo 2013).

Due to the increased global demand, quinoa has become an important financial opportunity for many rural populations in Ecuador. National production has flourished after the United Nations of Food and Agriculture (FAO) declared the year 2013 to be the International Year of Quinoa (MAGAP 2013; El Telegrafo 2013). This research study focuses on the production of quinoa in the province of Chimborazo, the major quinoa producer in the country (El Telegrafo 2013).

Ecuador is an ideal location for this research because, unlike the other leading quinoa-producing countries in the region, its quinoa production has up to now not attracted

significant attention from researchers. There have been several studies in Bolivia, including some describing the pressures faced by producers of such a high-demand crop (Flores, 2013; Murphy 2011; Romero and Shahriari 2011). Some of these studies have described the pressures exerted on such producers by high price and global demand of the product, sometimes inducing them to sell their entire product instead of consuming it as they have historically done (Murphy 2011). Other pressures include environmental degradation from the high production level needed to satiate high global demand (Evans 2013; Jacobsen 2011). Ecuador also is an interesting area for study because, even though it is a much smaller producer than Bolivia, it has continued to increase its production to meet world demand. Peru has faced issues similar to those in Bolivia, including environmental degradation and producers' limitations in purchasing the historically-consumed crop (Blythman 2013). Because quinoa production represents a great financial opportunity for Ecuador and its rural farmers, this research analyzes the quinoa production strategies used by the Fundamyf NGO to examine whether they have been effective in terms of poverty alleviation by addressing similar pressures encountered by quinoa producers in other exporting nations.

Participant

This is a study of Fundamyf, a small non-profit private organization that works toward development and poverty alleviation of women and families living in Ecuador. It is one of the two NGOs working with quinoa producers in the province of Chimborazo. Fundamyf was selected for this study because of its extensive involvement with quinoa

producers in the province of Chimborazo, whose quinoa production and sales are also the largest in the country¹⁹.

According to online reports, Fundamyf's projects focus on *Economic-Productive*, *Quality of Life*, *Political-Social*, and *Territorial-Environmental* aspects with respect to farmers and their work (NESsT 2009). The main goal of these projects is to improve rural living conditions of the family farmers. Although the NGO focuses on improving the general living conditions of vulnerable rural populations, it specifically concentrates on empowering indigenous women as a central point for improvement (Fundamyf n.d.). Ecuador's historic discrimination against women has limited women's rights and diminished their participation in leadership positions (NESsT 2009). Women represent the center of a rural family, and their education levels, self-esteem, and opportunities can affect opportunities for their children. If a mother is educated, it is more likely that her children will be educated (Fundamyf n.d.), so the NGO focus on women's rights and leadership opportunities results in benefit to the whole family.

Because Fundamyf focuses on four different areas, i.e., *Economic-Productive*, *Quality of Life*, *Political-Social*, and *Territorial-Environmental*, in the farmer's life, it is important to understand how projects are being implemented and how they impact the lives of producers. For example, projects for improving *Economic-Productive* wellbeing would include the promotion of quinoa production and elimination of third parties to increase the producer's income opportunities, translating into benefits to the entire farm family. The *Quality of Life* area includes training projects that increase awareness with respect to

¹⁹ Interview with NGO third representative, June 26, 2014.

women's rights and prepare women to understand, prepare, and maintain their land for agricultural production. The social aspect includes the development of leadership skills and organizational strategies in women and their families, enabling them to create and participate in networks within their communities. Finally, the *Territorial-Environmental* area includes training and improvement in soil-management methods through organic and sustainable production (NESsT 2009). In sum, the NGO was selected due to its location, involvement with agricultural family producers, and use of quinoa production as a strategy for poverty reduction among rural families in the province of Chimborazo, Ecuador.

Data Collection

The data collection for this study took place in June and July of 2014 using two approaches: face-to-face semi-structured interviews and reviews of the NGO's public documents and reports. The research project involved human participants, which required the review and approval of Iowa State University Institutional Review Board (IRB). The process involved the application of an exempt study review form where the research name, location, characteristics of participants, and interview questions were provided to IRB to protect anonymity and safety of the human subjects. The research followed the IRB training requirements of the National Institutes of Health (NIH) to protect human subject research participants. The exempt study review form was approved. An additional IRB approval was also made to allow the disclosure of the nongovernmental organization name in the research report. The name disclosure was needed as the organization characteristics were unique to the area and the country. The disclosure did not pose a risk to the participants since their number was not significant in comparison to the total number of

people working with the institution. Additionally, the research utilized pseudonyms to maintain the participants' anonymity and the names and participants' unique characteristics were kept confidential. This section describes these data collection approaches in more detail.

Semi-structured interviews were used to increase understanding about the experiences of the people and to learn about the meaning they make of those experiences; “the primary way a researcher can investigate an... organization, institution, or process is through the experience of the individual people... who make up the organization or carry out the process” (Seidman 2006, 10). Such in-depth interviews are also useful for studying marginalized groups (Esterberg 2002). Semi-structured interviews begin with a basic idea about the topic, and the interviewees' responses are used to further shape the order or structure of the interview (Esterberg 2002).

Since semi-structured interviews are helpful for learning about people's experiences and points of view, this approach has been useful not only for identifying what poverty-alleviating projects have been created, but also how such projects were perceived by both the employees of the NGO and the quinoa producers. For example, this research utilizes in-depth interviews with representatives of the NGO as well as with quinoa producers who receive their assistance to better understand how both the NGO employees and the producers perceived the efforts, strategies, and ultimate impact of the efforts.

The face-to-face interviews were conducted in Ecuador. The NGO was contacted via email, followed by appointment scheduling by phone. Contact with producers was

initially facilitated through the NGO to determine their interest and availability with respect to participation in the study. Each farmer was then contacted by phone to schedule the day and time for the interview. The interviews were

Table 2. Fundamyf's number of employees by area of concentration.

Area of Concentration	Number of Employees
<i>Project Coordination</i>	12
<i>Field Technical Assistance</i>	14
<i>Administration- Sales</i>	6
<i>Financial Assistance</i>	10
<i>Packaging Plant</i>	11 (up to 23)
Total Number of Employees	53

Source: Adapted (NESsT 2009).

conducted at the convenience of the interviewees at their preferred places and times and were categorized into two sections. First, interviews were conducted with four Fundamyf employees working in the areas of project coordinator, product commercialization and exportation, financial assistance, and field technical specialist assistance. The organizational structure of Fundamyf, including how many employees work in each area, is described in Table 2.

Second, the locations of interviews with the four quinoa producers from four different communities in Chimborazo are illustrated below (Figure 5). The demographic characteristics of the interviewed quinoa producers included all women ranging from ages 30 to 50 years old, all of whom finished elementary school, were indigenous, and whose main language was Quichua. The first producer was a married mother, living with her husband only since her children were grown out of the house, and who has been farming since she was a little girl. She has been actively involved in leadership opportunities within the NGO. This producer inherited the land from her parents and has been able to purchase scattered land in her community. She owns about five pieces of land ranging in sizes between half of a hectare to nine hectares, in which she, her husband, and sometimes with the help of friends and family plant wheat, peas, lentils, potatoes, beans, corn, carrots,

beets, barley, and quinoa. The couple divide the farm labor by her attending the house in the morning through cooking and attending their little grocery bazaar, while her husband is working the land. In the afternoon, together, her and her husband, take care of the farm (planting, weeding, harvesting, etc.). The selling of products to local markets is managed by the husband, who travels every weekend to sell the products while she cares for the house and the little bazaar.

The second producer was a single mother and has been an active member of the non-governmental organization as a promoter. She has been farming all her life and lives with her parents, daughter, and her siblings. She and her parents own two pieces of land each of approximately one hectare. The crops cultivated in their land included potatoes, beans, garlic, and quinoa. The labor and sale of products to nearby markets is accomplished more or less equally among her and her parents.

The third producer was a single woman who has farmed all her life and who lives and shares ownership of four pieces of land with her parents. The crops produced in their farm included carrots, barley, garlic, corn, and quinoa. While the labor division has been accomplished by her and her father, the sale of products has been developed by her father to local markets.

The fourth producer was a married woman with children, who only lives with her husband as her children are married and living outside the house and who started cultivating crops after getting married. She owns four pieces of land each of size of less than a quarter of a hectare where corn, beans, barley, and quinoa are cultivated. The fourth producer works the land and carries sales of products alone since her husband has another job in the city, but she acquires help from friends or family as additional labor.

A main difference among all stated women producers was their level of leadership involvement in their communities that seemed to impact their ability to communicate with more confidence and knowledge about agriculture (those with more involvement conveyed more knowledge and confidence during the interviews). On the other hand all four producers land was located at 10,000 feet or more above sea level on hill like surfaces, which meant that the higher the altitude, the greater the difficulty to grow various types of crops; one of the reasons for why women produced quinoa, as it is a crop that grows well in harsh and dry environments.

The agricultural practices of the women producers who participated in the study included diversification and crop rotation mainly employed as a collaborative work involving families and neighbors, in which field labor (harvesting, weeding, and planting) are joint activities with friends and families whenever needed. Most crops are planted in May-June and harvested in October-January, depending on the product and the weather. The selling of the crops is normally facilitated by men (father or husband) at local markets, but all producers and families have small farm animals, such as chickens, rabbits, guinea pigs, and pigs, which are typically sold by women in the local animal markets.

Source:
Adapted (Secretaría Técnica del Ministerio de Coordinación de Desarrollo Social 2006).

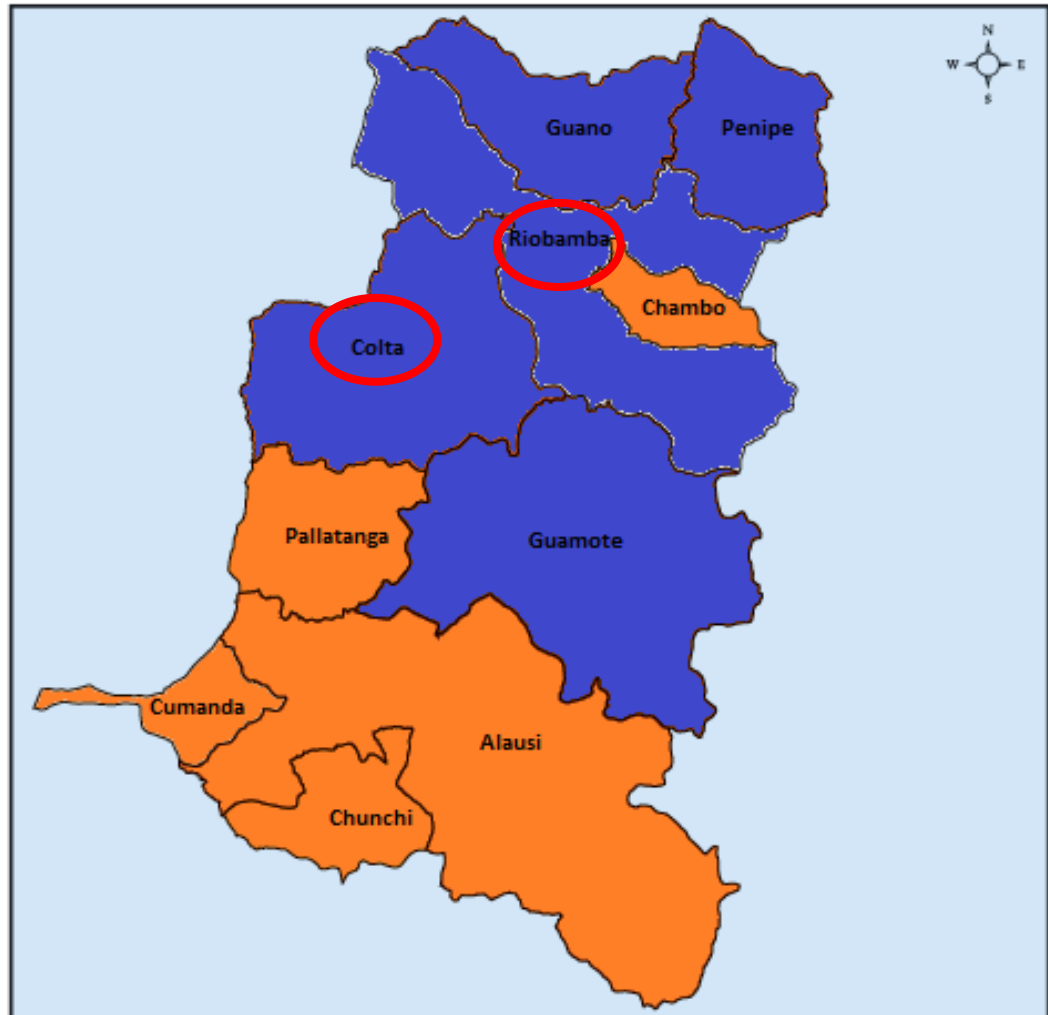


Figure 5. Cantons of the Province of Chimborazo highlighting Fundamyf work area and two producers' Communities.

Interviews with the field technical assistance and financial assistance representatives took place at the packaging plant located in the city of Riobamba, where quinoa is delivered, processed, and packed, while interviews with the project manager and the product commercialization representative were conducted at the NGO's administrative offices located in the city of Quito. The farmers were selected from four rural communities

in the province. There are about 1000 registered communities in the province and the NGO works with 25 of them. These 25 communities are relatively similar in economic, social, and ethnic status and are mostly located in close proximity to one another. The selection of producers was based on their interest and availability. A representative of the NGO traveled with the researcher to all four communities but was not present during the interviews.

The interviews were conducted in Spanish, although three out of four producers were indigenous; all of them spoke fluent Spanish. However, a hired Quichua interpreter was present to enhance understanding of the producers' culture and linguistic subtleties. All interviews were recorded, transcribed, and translated into English (See Appendix for Interview Guide). The average length of the interviews was eighty-four minutes with the NGO representatives and fifty-seven minutes with the quinoa producers. The researcher also collected contact information from all the participants in case additional information might be needed for analysis.

In addition to the interviews, the study also involved an in-depth review of the NGO's reports and public documents, including various documents provided by the NGO and online newspaper documents from Ecuador. The analyzed reports were acquired by from an NGO representative and included a variety of published reports about the NGO's work in Ecuador. The interviews and the document analysis expanded the knowledge of NGO project development and were also useful in understanding the organization, the producers, and the poverty-alleviation efforts. Overall, the data collection process went smoothly and accomplished the research goals.

Data Analysis

The data was coded by identifying important segments of information (e.g., quotes) that addressed the research questions (Merriam 2009). Three questions were proposed:

1. What is the nature of the NGO (goals, history, evolution, etc.)?
2. What activities does it perform to attain its goals?
3. How effective is the Fundamyf in achieving its goals?

The first and second questions were answered through analysis of interviews of NGO representatives as well as through analysis of NGO reports and documents. The main objective of the first research question was to understand the goals of the NGO, its history, and its evolution since inception. The main goal of the second research question was to list and describe projects the NGO sets out on to attain its goals.

The third question was answered through an analysis of interviews of quinoa producers receiving assistance from the NGO. A theoretical framework, called the Sustainable Livelihoods approach, was used to analyze this question. Although the NGO does not specifically use the SLA as a developmental tool, the organization has similar goals as the SLA: to improve the quality of life of vulnerable populations. Additionally, the SLA is useful as it can be used to assess if Fundamyf's work is comprehensive when improving the quality of life of small producers. The SLA is a holistic approach to understanding and alleviating poverty through the maintenance of capital, assets, and capabilities necessary for people to experience good quality of life (Chambers and Conway 1992). To answer the third question, the following sub-questions were developed to measure the NGO's effectiveness in achieving its goals: Do the activities developed by the

NGO cover all areas of the Sustainable Livelihoods Approach? If not, what areas do they cover? How well is the NGO doing in each area? Do the activities have a long-term impact?

In the third question, important segments of the data were identified and categorized into themes to reflect different forms of capitals (social, human, natural, financial, and physical) of the Sustainable Livelihoods Approach (Department for International Development 2001). Although the SLA model from the Department for International Development is comprised of five capitals, the NGO focuses on four aspects of quinoa producers' lives (*Economic-Productive*, *Quality of Life*, *Political-Social*, and *Territorial-Environmental*) and four corresponding forms of capital (social, human, natural, and financial) from the SLA were employed in the analysis. The physical or fifth capital was not analyzed as an independent capital since it is not expressed as main goal by the organization; instead, components of the fifth capital were integrated as part of financial and natural capital, which will be described in detail next. The forms of capital, along with an illustration of how the work of the NGO affects producers' lives, are defined in the following paragraphs (Flora and Flora 2013).

Social Capital: Interaction among groups who have a shared future.

Social Capital expressed in the Data: one producer mentioned that in order to work with the NGO they had to get organized as a community and form a committee to represent the group. On the other hand, an NGO representative stated that since the community requires a committee, but was not always knowledgeable about how to get organized, the NGO prepared training sessions in the community to help the producers get organized. Overall,

these instances relate to social capital because people could network within their community and collectively benefit because they all share a common future and the goal of freedom from poverty.

Human Capital: Education, skills, health, and self-esteem of people.

Human Capital expressed in the Data: household violence and women's low self-esteem has been an issue faced in the rural populations of Ecuador (NESsT 2009). The NGO developed workshops to present videos and facilitate discussions about women's rights and equality of interaction among men and women. Producers stated that respect towards women's opinions and an increase of women's contribution to the household had been accomplished, particularly with husbands, through these videos and discussions with families. Such workshops have allowed women to interact in leadership positions from which they were previously excluded. Overall, these activities relate to human capital because they improved women's self-esteem and opportunities within their communities.

Natural Capital: Caring and protection of nature, including but not limited to air, water, and soil.

Natural Capital expressed in the Data: intensive chemical usage detrimental to the environment has been an issue faced by producers. One producer mentioned that organic production has improved the land and quality of products from the land because the soil was healthier and the products grew quicker and prettier. This was related to natural capital

because the knowledge about organic production acquired from the NGO by the producers enriched the soil and protected the well-being of nature as well as the farmers' land.

Financial Capital: Generation of income and opportunities to acquire loans, credit, etc.

Financial Capital expressed in the Data: the NGO helps in finding contracts with international and national buyers to sell the producers' quinoa. For example, the NGO and the quinoa producers have meetings before each harvesting season to agree on a price that the quinoa producer would like to have for each hundred-pound bag of quinoa; this agreement would seek to guarantee the quinoa producers a secure buyer and price. The work of the NGO is to find reliable buyers at a fair price; otherwise producers might have to sell their product, often through intermediaries, at a lower price in an unpredictable open market. Overall, this relates to financial capital because it contributes to the income generation of the quinoa producers, providing secure and reliable sale of their products.

Physical Capital: Infrastructure or public good improvements, as well as equipment, transportation, and water supply.

As physical capital is not directly described as a main objective of the NGO, this study did not assess the NGOs services in terms of physical capital. Rather, elements that may be related to physical capital were interpreted through the framework of the NGOs' four capital goals. For example, transportation and lack of assistance in water supply were mentioned during the interviews, but they are interpreted as part of financial and natural capital, respectively, as this aligns more closely with the NGO's capital goals. Thus, in an

attempt to assess the NGO in a format more consistent with its goals of promoting four types of capital, physical capital has not been integrated in the analysis as an independent capital.

Overall, the data were interpreted and related to social, human, natural, and financial capitals, which align with the SLA, to help understand the improvement strategies of the NGO with respect to increasing the quality of life of quinoa producers in the province of Chimborazo, Ecuador.

CHAPTER 4

FINDINGS

This chapter presents the findings of the research by addressing three research questions: 1) What is the nature of Fundamyf? 2) What activities does Fundamyf perform to attain its goals? and 3) How effective is Fundamyf in achieving its goals? As mentioned in the methodology chapter, face-to-face semi-structured interviews were conducted with eight participants: four workers from the non-governmental organization (NGO) and four producers who receive assistance from the organization. The first and second questions will be answered by analyzing the data collected from the interviews with the NGO workers as well as the reports, website, and newspaper documents. The third question will be addressed by analyzing the data collected from the interviews with the quinoa producers.

What is the Nature of Fundamyf?

This research question explores the history of Fundamyf, with a focus on how and why it started, its goals and objectives, its beneficiaries, and its evolution. As stated on its website the NGO's goal is to contribute to "reduction of poverty levels in the country by implementing a sustainable development proposal incorporating criteria of inclusion, equity, and diversity"²⁰ (Fundamyf n.d.). This goal has led the NGO to work with the most vulnerable social groups in Ecuador, such as poor indigenous populations living in rural

²⁰ **Original:** Contribuir en la reducción de los niveles de pobreza que existen en el país a través de implementar una propuesta de desarrollo sustentable que incorpore criterios de inclusión, equidad y diversidad (Fundamyf n.d.).

areas, through implementing projects in five cantons in the province of Chimborazo. A brief background will be given to establish the context of why the NGO started working in Ecuador, followed by description the phases the NGO has undergone up to this point and descriptions of the four main activities it performs.

Background

Ecuador's agricultural practices, land usage, and rural poverty have been influenced by the country's history with Spain and colonization. About three hundred years ago, Ecuador was conquered and occupied by Spaniards, and this period was characterized by the usage of indentured labor and poor treatment of the indigenous populations (Wasserstrom and Southgate 2013). While the country became independent in 1822, discriminatory practices towards indigenous populations continued between Spaniards (and later by their descendants) and indigenous people, which strongly influenced agricultural practices in Ecuador. Following the conquest new agricultural practices were introduced, including the replacement of native crops such as quinoa for wheat, as well as introduction of new animals and tools, many of them disruptive to the native agro-ecosystem (Cade 1992).

The conquest was also characterized by establishment of *haciendas* or large farms owned by Spaniards and their descendants in which agricultural labor was supplied by the indigenous populations. By the 1960s, about 0.4 percent of all land owners owned about 45 percent of total farmland in the country, while the remaining farms, many times too small to support a single family, were owned by small producers (Wasserstrom and

Southgate 2013). In 1964, agrarian reform occurred, which provided economic modernization and political stabilization to resolve social conflicts in Ecuador. The reform included redistribution of land to resource-poor producers, while simultaneously increasing the number of farmers receiving services from the government (Bebbington, et al. 1993). The reform meant, “highland *hacendados* [farm owners] had sold off significant holdings [due to governmental policies], but still owned a third of the country’s total (and best) agricultural land. In contrast, 70% of rural households tried to survive on less than 8% of all farmland.” (Wasserstrom and Southgate 2013, 34). Although new reforms redistributed the agricultural land from *hacendados* to small agricultural producers, the distribution was uneven since the land was characterized as being of poor quality at isolated locations within the Andean highlands (Wasserstrom and Southgate 2013). On the other hand, agrarian reform did not include training for improved agricultural practices to help new landowners improve their production conditions. Poor-quality land and smallholdings have historically influenced small producers to engage in intensive and unsustainable agricultural production to meet their family’s needs (Gobierno Municipal de Colta 2001).

Because of a discriminatory history and resulting poor land divided into small plots, the indigenous rural populations are among the poorest and most vulnerable populations in Ecuador (Gobierno Municipal de Colta 2001). As a way of empowering and reducing the poverty status of these historically mistreated indigenous populations, the NGO formed groups to train and educate them about human rights, leadership skills, and opportunities to improve their quality of lives (NESsT 2009). The NGO, like many organizations, has evolved over time and, according to one of the employees, this evolution has occurred in

three different phases²¹. During the first phase (1994-1998)²², the main activities were leadership and informative workshops intended to empower women and enhance their quality of life as a strategy for reaching out to the entire family. The second phase (1999-2006)²³ involved empowering local governments as a means for strengthening entire communities to help them take control over their problems and take advantage of their developmental opportunities and resources. The third (2003-present)²⁴ phase, similarly to the first phase, has focused on women as the center for empowerment, but with recognition and use of the community goals, resources, and opportunities discovered in the second phase.

First Phase (1994-1998)

During the first phase, the NGO focused on the improvement of lives of poor rural women in the province of Chimborazo, one of the poorest and least-developed provinces in the country (Fundamyf 1997). The organization was formed in 1994, a time when migration toward urban areas and international destinations was common in both the country and the province (Gobierno Municipal de Colta 2001). Because of the country's financial distress during neoliberal policies in the 1980s, accompanied by small land size and poor land quality, many people were forced to find other sources of income (Jokisch 2002). Migration was accompanied by the separation of families, and often it was mothers with children and without husbands who had lost necessary labor capability and now faced

²¹ Interview with NGO third representative, June 26, 2014.

²² Estimation based on Fundamyf's reports.

²³ Estimation based on Fundamyf's reports.

²⁴ Estimation based on Fundamyf's website.

an increased load of agricultural work (Jokisch 2002). Other characteristics of rural populations included discrimination against women and their involvement in economic, political, and social aspects of their families and communities (Lavinás Picq 2012). The province of Chimborazo has about 1000 indigenous communities, units that have their own committees and are recognized by the government²⁵. Because of discriminatory history in rural areas, women were often considered only for lesser-impact committee positions such as secretary or treasurer (Fundamyf 1997). Although the NGO's work is generally focused on poor rural populations, because of discriminatory and migration issues, the NGO specifically focuses on women as a way to reach out to entire families; if "we train the mom, that integrates the husband, children, and the whole family"²⁶.

The first phase was intended to empower women and inform communities that women and women's organizations are important contributors to political and social aspects of society (Fundamyf 1997). The NGO focused on campaigns that included training and participatory meetings with women about women's rights and economic, political, and social inclusion²⁷. The process sought to encourage women to follow their dreams and speak among themselves to plan for solutions based on available resources (Fundamyf 1997).

This phase began with meetings that let women be heard, become organized, and make decisions about what issues they faced and what goals and dreams they had for themselves, their families, and their communities. With the NGO's help, a women's organization was developed in each community to assist women in the community become

²⁵ Interview with NGO third representative, June 26, 2014.

²⁶ Interview with NGO second representative, June 23, 2014.

²⁷ Interview with NGO third representative, June 26, 2014.

formally organized. Each organization selected a committee of leaders to spearhead efforts to become registered and legalized in the province in order to acquire financial opportunities and technical assistance from the government (Fundamylf 1997). As one NGO worker said, “we work with groups within communities with the goal to organize them, since we often find that they are not organized, so we also help them to get organized”²⁸.

After the women’s organizations were formed, approximately 5,000 women assessed their available resources and opportunities to find common ground and solutions to their issues and to meet their goals and dreams. Once an organization became legally recognized in the province, with NGO assistance they sought training opportunities and credit and requested input from government organizations. For example, some groups discussed and agreed that, since many women’s main source of income came from sales of small animals, training about how to improve animal cages was needed in their communities. Through the NGO’s training sessions describing specific governmental organizations that could be helpful with that need, including the process of application and training acquisition, they were able to go through the process and acquire specific and appropriate help.

Other areas of NGO focus included training sessions to prevent household violence, promote women’s self-esteem, raise awareness about women’s rights, enhance leadership skills, identify opportunities to improve product commercialization, eliminate agricultural intermediaries, and hold training sessions about nutrition to inform them about the

²⁸ Interview with NGO fourth representative, June 27, 2014.

advantages regarding the diet improvement offered by their products. Overall, during the first phase the NGO focused on democratization processes through the organization of women's groups to help them manage their own projects by prioritizing issues, managing their resources, finding solutions on their own, and asking for assistance from governmental agencies.

Second Phase (1999-2006)

The second phase, although still working with women organizations created during the first phase, was characterized by the creation of developmental planning documents with municipalities and local actors from cantons in the province of Chimborazo (NESsT 2009). Although, the province of Chimborazo is composed of ten cantons, this process was principally focused on municipalities in three: Chambo, Colta, and Cumanda (NESsT 2009). Every municipality, with the assistance of the NGO, created a development plan that captured the current status, resources, goals, and future plans for the well-being of the people and community.

In the previous phase the NGO helped formed women organizations to educate them about available resources in their area, but in the second phase the focus was on creation of planning documents as a process of facilitating communication between the people and the relevant organizations. The joint work was proposed by women's organizations and executed with the assistance of the NGO as a means for connecting and raising awareness to local governments about the goals and needs of local people and to improve quality of life in people's homes, neighborhoods, city/communities, and cantons.

These plans for development focused on finding problems, strategies, and solutions in each area to achieve common goals through management and use of available resources and knowledge. This phase also allowed for a democratic process since it included the contributions of representatives from the municipality, women's organizations, the local population, and private and public organizations in each canton. The participatory planning process required actions and acceptance of responsibility by local municipalities and coordination between other institutions and local citizens to find problem solutions related to jobs, poverty, and socio-economic development, while enforcing sustainable usage of natural resources (Ilustre Municipalidad de Cumanda 1999).

This second phase had several steps that were followed when developing the planning document with the assistance and guidance of an NGO team. These steps were then replicated for each Canton's municipality (Ilustre Municipalidad de Cumanda 1999).

1. The first step involved negotiations between the municipality and women's organizations. The negotiations included:
 - a. A commitment from the directors of the municipality departments to facilitate documentation, ordinances, maps, and blueprints needed for the development of the planning document, as well as a commitment to implement the developing plan once it was finished.
 - b. Meetings within each municipality department to help understand the progress and deficiencies of their departments and a recognition of currently in-place services and projects, as well as their priority work areas.

- c. A team from the municipality to provide permanent technical assistance in the development of the plan document; each technician was trained in one municipality department based on the areas of need.
2. The second step promoted participation from the main actors, including neighborhoods, communities, and public and private organizations of the canton, to ensure a more democratic process and to compel institutions to respond to people's demands. This participation process was developed through:
 - a. Campaigns and meetings with representatives of institutions, neighborhoods, and communities to inform them about the project and to encourage them to work together.
 - b. Training sessions delivered in workshops and seminars about subjects related to women's roles and opportunities in leadership positions, management, conflict resolution, gender equality, and decentralization.
3. The third step was to conduct an analysis of the canton using primary and secondary data; this was done with the help of local and national institutions since it was an important step toward understanding the characteristics of the location. The information considered included the history of the canton, demography, geographic location and administrative division, socio-economic characteristics, infrastructure and services (health, education, housing, and sanitation), natural resources, social organizations (NGOs, women's organizations, etc.), and municipality status (functions, human resources, main action areas, implemented projects, etc.).
4. The fourth step was participatory diagnosis, including a poll to collect direct information about the needs and goals of men and women in their homes,

neighborhoods, communities or cities, and cantons. In this process, during a cantonal assembly, representatives were selected from each neighborhood, community, institution, and social, political and economic organizations to assist in the development of the plan.

5. The fifth step was the generation of specific sustainable ideas for canton development. Discussions, elaborations, and approvals of the ideas were developed during cantonal assembly meetings with all representatives of the canton.
6. The sixth and final step was the creation and approval of policies, strategies, programs, and projects. This process included the creation and presentation of a report that illustrated the proposed ideas for development. Subcommittees were organized and provided with data based on their areas of specialty, and they in turn proposed ideas to the general assembly for approval. For example, on the subject of health, the institutions and professionals providing health services, in conjunction with women's organization representatives and other stakeholders, were organized to develop ideas and proposals for policies, strategies, programs, and projects that related to health care and education.

Ultimately the development plan included a variety of project proposals to assist the development of economic, environmental, educational, health, and social issues in each municipality's locality or canton. The NGO assisted and guided in all these steps. Typical projects included the creation of commercialization fairs for agricultural products to increase product sales while decreasing intermediaries, improvement of agricultural production through ecological practices with organic or green certification, application of educational programs through partnerships with NGOs and private organizations focusing

on education, training of small market owners and street vendors about health education, and preparation of local leaders to increase local development (Municipio del Canton Chambo 2003).

While in the first phase, the NGO focused on women's empowerment as an important aspect of improvement in quality of life for them and their families; in the second phase, although the initiative was proposed and had contributions from the women's organizations²⁹ created in the first phase, the NGO additionally recognized municipalities, local institutions, and organizations as essential and powerful actors in the life of a local community through creation of infrastructure and providing basic services. This second phase was democratic and utilized significant collaboration to improve the relationships among local governments and communities as well as public and private organizations. All the actors involved in this collaborative process were important and active benefactors of the processes.

Third Phase (2003-present)

This phase was influenced by the first two phases and continues to work with the women's organizations while focusing on problems and resources identified in the second phase, but establishes the NGO as a central contributor to the development of women, families, and communities in the province of Chimborazo. This phase was created as a response to limitations of developmental processes in which funding was given, but neglected sustainability. Also, this shift was in response to political and economic changes

²⁹ Interview with NGO third representative, June 26, 2014.

in the country³⁰. Ecuador has tripled its Gross Domestic Product in the last ten years (The World Bank 2014). As a response, the NGO has focused on the creation of a “new model” where the NGO generates income, while creating social developmental processes and programs³¹. The NGO’s income generation is characterized by the creation of production chains for producers, where the NGO facilitates the production, commercialization, and exportation of the products as well as through charging organizations fees for consulting services. In this stage, the NGO, through their income generation and help from national and international relationships, developed projects focusing on the improvement of specific areas of women’s lives as a way of reaching out to the entire family and community, ultimately increasing their quality of life and reducing poverty and discriminatory status.

For instance, during the first stage, women were placed at the center of development by giving them a voice and an opportunity to make a difference in their lives through information and training sessions addressing their rights, opportunities, problems, and solutions. In the second phase, the NGO used local governments and local actors through a democratic and participatory process for the creation of a developmental plan in each community. Presently, in the third phase, the NGO still focuses on women’s empowerment, but with the NGO as a main actor that focuses on improving four specialized areas that were previously established as key quality-of-life components of people and communities in the province of Chimborazo, Ecuador. The four main areas of focus, components of the *Indigenous Women Building their Future*³² project by the NGO, are *Economic-Productive*, *Quality of Life*, *Political-Social*, and *Territorial-Environmental*. The NGO achieves these

³⁰ Interview with NGO third representative, June 26, 2014.

³¹ Interview with NGO third representative, June 26, 2014.

³² **Original:** Mujeres Indígenas Construyendo su Futuro.

goals through training promoters selected by each community's women's organization to acquire knowledge at NGO workshops and distribute that knowledge to their local communities. Additionally, the NGO through field specialists provides technical assistance to improve agricultural production and sustainable practices in each community.

1. Economic-Productive: This area includes improving the production processes, commercialization, exchange, and distribution of agricultural products. It involves strategies for the implementation of a developmental proposal that gives people access to the management and control of resources to contribute to their own development (Gobierno Municipal de Colta 2001).
2. Quality of Life: This includes strategies and plans in health, education, and human rights that promote the improvement of quality of life with a gender-equality focus (Gobierno Municipal de Colta 2001; NESsT 2009).
3. Political-Social: This focuses on projects relating to leadership skills and organizational strengthening through a gender-equality focus (NESsT 2009).
4. Territorial-Environmental: This includes projects relating to environmental issues, land management, as well as promoting organic production (NESsT 2009).

All these activities are elements for improving the quality of life for the women, their families, and their communities. Overall, promoting changes and actions in each area results in a balanced developmental process that helps and empowers women producers to enhance their quality of life.

What Activities does Fundamyf perform to attain its Goals?

The second research question explores specific projects of the non-governmental organization intended to increase the quality of life of indigenous women, families, and communities. This section describes the NGO's activities using data from interviews with the NGO representatives as well as the NGO website, reports, and documents. The second research question expands upon the first research question about the nature of the NGO, and focuses on the NGO's current and third phase as a central contributor to development and implementation of projects.

According to the NGO's website, the organization has conducted one main project in the province of Chimborazo, called *Indigenous Women Building their Future*³³. This project is a main component of the NGO proposed model, where outside sourcing is collected and income is generated while social development projects are executed. The project is divided into two subprojects, each with different sources of funding. One subproject focuses on *Quality of Life & Political-Social* matters and the other focuses on *Economic-Productive & Territorial-Environmental* issues. The *Indigenous Women Building their Future* project, its subprojects, and its activities are described below.

Indigenous Women Building their Future

The project was created to accomplish the NGO's goal of improving the quality of life of indigenous women, families, and communities in the province of Chimborazo through poverty alleviation efforts (Fundamyf n.d.). Although Chimborazo has ten cantons

³³ **Original:** Mujeres Indígenas Construyendo su Futuro.

and about 1000 communities; the NGO currently focuses on five cantons (Chambo, Colta, Penipe, Riobamba, and Guano) that have about 25 communities³⁴. As previously mentioned, in phase one the NGO helped women from communities become organized and promoted development through having them serve as main actors for improvement of their quality of life. In the first phase the NGO organized women and informed them of ways they could improve their lives through governmental resources and technical assistance. In the third phase, however, the NGO has been the main actor of project implementation, resource distribution, and technical assistance and, in order to reach out to all 25 communities, it uses promoters or representatives selected by women's organizations in communities. Each of these promoters specialize on a specific topic through the NGOs training programs and later share their knowledge by serving as experts in their communities³⁵.

With the help of the promoters, every six months the NGO works as an assembly (instead of through top-down directives) to discuss necessary issues of the communities such as production planning, business, or issues related to children, e.g., malnutrition³⁶. During these discussions, delegates direct the assembly and make decisions that are agreed to by both the women and the NGO. As a way to ensure accurate knowledge distribution in communities, the NGO has monthly meetings with the presidents of each women's organization to monitor the work that the promoters have developed in their communities³⁷.

³⁴ Interview with NGO fourth representative, June 27, 2014.

³⁵ Interview with NGO third representative, June 23, 2014.

³⁶ Interview with NGO third representative, June 23, 2014.

³⁷ Interview with NGO second representative, June 23, 2014.

Overall, the NGO presents itself as just another actor who can leave if no longer needed or wanted by the women's organizations³⁸.

According to a representative of the NGO, each community has four types of promoters: health, education, agricultural, and livestock³⁹. Each promoter acquires knowledge through “organized workshops in Riobamba, which [can then] ...be replicated in communities with the help of promoters, who often know the local language, [which can be helpful since] most often people are Quichua speakers”⁴⁰. For example, a health promoter may receive training in Riobamba, the closest large city to their home with NGO offices, through the help of a doctor “who trains promoters and teaches them how to weight the child, how to give parasite treatments, [and] how to measure the children's skull”⁴¹. After the training the NGO has “a follow-up in their communities to see if they are doing their job well or to correct them”⁴². Ultimately, the promoters receive training from the NGO and then in turn become the main source of knowledge distribution to their communities. Next, each subproject from the *Indigenous Women Building their Future* and its activities will be described.

Quality of Life & Political-Social Subproject

This subproject focuses on having “indigenous women... [being] part of the project that serves reproductive rights...access to education...and implementation of a preventive

³⁸ Interview with NGO third representative, June 26, 2014.

³⁹ Interview with NGO third representative, June 26, 2014.

⁴⁰ Interview with NGO fourth representative, June 27, 2014.

⁴¹ Interview with NGO second representative, June 23, 2014.

⁴² Interview with NGO second representative, June 23, 2014.

health program⁴³ as well as political empowerment and prevention of household violence (Fundamylf n.d.). This subproject has been funded by CAF⁴⁴ (Fundamylf n.d.), a Latin American bank that supports sustainable development and regional integration through the financing of projects in the public and private sectors (CAF n.d.). The two areas of focus of this subproject are described below:

Quality of Life. This area evaluates health and education and people's opportunities (or lack thereof) for acquiring them. Discriminatory practices towards women, indigenous, and rural populations in the country have limited their educational and health opportunities (Gobierno Municipal de Colta 2001; Municipio del Canton Chambo 2003). According to a report from the NGO, the differences in literacy level between men and women and between white-descendant (mestizo) and indigenous is significant in the province of Chimborazo; men and mestizos have much higher literacy levels than women and indigenous populations (Gobierno Municipal de Colta 2001).

Furthermore, characteristics detrimental to families' health are related to excessive use of chemicals in agricultural production. Isolated areas also may have limited access to water for cleaning of food and personal hygiene, as well as limited access to hospitals, health centers, and medicine. Overall, poor rural education and health are influenced by location, low governmental assistance, and investment (Municipio del Canton Chambo 2003). Both areas, health and education, present opportunities for improvement with assistance from the NGO. Examples of some NGO-focused projects include:

⁴³ **Original:** mujeres indígenas son parte del proyecto que atiende derechos reproductivos y el acceso a la educación... e implementación de un subprograma de salud preventiva (Fundamylf n.d.).

⁴⁴ Corporación Andina de Fomento.

Education: The NGO created a “sub-program of adult literacy [where] promoters were formed in education that... [created] literacy centers in order to have people learn to read and write”⁴⁵. The main goal was to “decrease illiteracy in communities, as mothers could not read nor write, then... [the NGO] said if education comes to a mother, then it reaches the whole family, since she passes and puts effort into her children’s preparation... Then now [that] the family’s mother learned to read and write, then she... have her children study too”⁴⁶. Trainings and workshops to increase awareness about women’s rights and decrease household violence were also part of the educational projects of the NGO⁴⁷. Overall, educational projects are important contributors to the well-being of families and communities since people had opportunities to get educated and learned about women’s rights and opportunities in their communities.

Health: The NGO created training workshops for parents regarding the importance of a healthy diet for the family by covering a variety of topics, such as promoting consumption of their own agricultural products, information related to water consumption and health, and raising awareness of women’s and children’s health issues (e.g., childcare and maintaining a healthy diet/avoiding malnutrition)⁴⁸ (Gobierno Municipal de Colta 2001). For example, the NGO works on the education of the mother through improved nutrition “because people sometimes produce... [just] to sell, but do not care for nutrition or their own self... [The NGO makes] people aware of [their products, such as] quinoa... because it is a super

⁴⁵ Interview with NGO third representative, June 26, 2014.

⁴⁶ Interview with NGO first representative, June 19, 2014.

⁴⁷ Interview with NGO first representative, June 19, 2014.

⁴⁸ Interview with NGO third representative, June 23, 2014.

food... [that has] reduced child malnutrition”⁴⁹. Additionally, the NGO trains its promoters to “track children under 5...[to ensure a] ‘healthy baby’...which...allows... [promoters] to measure the same group of children monthly, to see if ...[their diet] is enabling or reducing [malnutrition]”⁵⁰. Overall, the NGO does not focus on curative health measures, but rather on preventive health and nutrition, thereby aiming to improve the living conditions of the family and community.

The NGO’s assistance with respect to health and education through a gender-equality focus results in positive opportunities for families and communities who can take advantage of NGO efforts while simultaneously increasing the nutrition of their children and family and increasing their labor potential as enhanced nutrition increases their health and quality of life.

Political-Social. This area evaluates social networking and leadership opportunities (and limitations) for women in the province of Chimborazo. Historically, since Spain’s conquest, indigenous populations have been discriminated against and isolated, significantly and negatively influencing their poverty status in the country (Wasserstrom and Southgate 2013). Even though they have experienced such historic indigenous discrimination, these populations have maintained a strong networking framework and managed to survive in spite of this vulnerability (Gobierno Municipal de Colta 2001). According to a report from the NGO, indigenous populations are characterized by having reciprocal agricultural production that allows families to contribute and provide work and

⁴⁹ Interview with NGO third representative, June 26, 2014.

⁵⁰ Interview with NGO third representative, June 26, 2014.

food to other families. This process supports social networking among families and communities to overcome economic and environmental stresses in the area of agricultural production (Municipio del Canton Chambo 2003). Social networking has also provided communities with the strength to lead and fight for their rights in the country and, even although rural indigenous populations still remain poor, their role in political decision-making has improved after indigenous movements present in the 1980s (Bebbington 1992). However, even though indigenous movements and social networking has helped improve many lives, women's rights and leadership opportunities have still been limited (Fundamyf 1997). A primary goal of the NGO is to help women become organized, because when women organize they "realize that they are part of the country, that they have rights, and that they can learn to manage in different places"⁵¹. As a way to continue the improvement of women's rights and leadership opportunities, similarly to the first phase, the NGO has worked on the training workshops:

Women's Organizations: The NGO has, since it started, focused on the creation and strengthening of women's organizations in communities within the province of Chimborazo. It is important for such organizations to establish committees and become registered in provinces to take advantage of government resources such as credit and technical assistance (Fundamyf 1997). The NGO "help[s] them, teach[es] them how to have meetings and what things they should take into account, [and] how to form a committee"⁵². Women's organizations provide an opportunity for women to lead and manage their own resources in their communities.

⁵¹ Interview with NGO third representative, June 26, 2014.

⁵² Interview with NGO second representative, June 23, 2014.

Leadership: The NGO has created workshops to teach women about networking and problem solving in their communities. For example, when the NGO has “leadership training...[they] train them in management, then if they have an infrastructure problem, then they can go to these sites to manage them...[The NGO gives] them information about where to go and how to go there, which is other issue, what to [do and] what information has to be presented”⁵³. Leadership skills help women to be heard and to encourage development in their lives, families, and communities.

These activities illustrate how the NGO’s assistance on organizational strengthening and leadership skills through a gender-equality focus promotes opportunities for families and communities to overcome discrimination, increase their knowledge, and improve their living conditions.

According to the NGO’s website, the two stated activities *Quality of Life* and *Political-Social*, were financed by CAF up until 2007 (Fundamyl n.d.). The NGO, although its funding was greatly reduced, has been able to maintain these two activities but at a diminished level. While the number of training workshops in the subproject has been decreasing, the NGO representatives have stated that one reason for this decreasing contribution is the government’s increased involvement in the provision of social services⁵⁴. At the beginning, the role of the NGO was essential in alleviating health and education issues that governmental organizations could not address⁵⁵ but, as time has passed, the government has increased its involvement in issues related to health and education

⁵³ Interview with NGO third representative, June 26, 2014.

⁵⁴ Interview with NGO fourth representative, June 27, 2014.

⁵⁵ Interview with NGO first representative, June 19, 2014.

programming and outreach⁵⁶. Overall, governmental involvement has allowed the NGO to concentrate and invest in other already-existing areas.

Economic-Productive & Territorial-Environmental Subproject

The *Economic-Productive* projects concentrate on income-generation through improvement of agricultural production while respecting the environment. Sustainable practices in agriculture are accomplished through projects directed toward decreasing chemical usage and exposure to producers and families. The subproject promotes activities including “indigenous women...in the production of organic Andean grains, domestic and international commercialization...[and a] credit union... [created by the NGO, but] directed by women themselves”⁵⁷ (Fundamylf n.d.). This subproject, funded by FECD⁵⁸ (Fundamylf n.d.), is a “private, not-for-profit organization that works to improve in a sustainable manner the living condition of the most vulnerable groups in Ecuador, through integrated development proposals” (FECD 2014). To attain the NGO’s goals, the two areas of subproject focus engage in the activities described below:

Territorial-Environmental. Agriculture is the main activity in rural populations, providing the main source of income and employment (Gobierno Municipal de Colta 2001). Thus, environmental characteristics such as weather, water availability, and type and size of land, influence both the opportunities and the problems associated with agricultural production. The central Andes where the province of Chimborazo is located is characterized highly irregular weather conditions, including droughts, frosts, and hailstorms, all of which put

⁵⁶ Interview with NGO fourth representative, June 27, 2014.

⁵⁷ **Original:** indígenas incorporadas en la producción de granos andinos orgánicos; comercialización nacional e internacional... cooperativa de Ahorro y Crédito... dirigida por las propias mujeres.

⁵⁸ Fondo Ecuatoriano de Cooperación para el Desarrollo

the producers' crops at risk (Gobierno Municipal de Colta 2001). Water availability is also limited due to remote land location (high in the mountains) and poor infrastructure. According to an NGO report, about 80 percent of the water in the province of Chimborazo is used for agricultural production (Gobierno Municipal de Colta 2001), so water use and availability are paramount for local agricultural producers.

The history of Spanish conquest has also contributed to small land-parcel ownership, isolated land locations, and poor soil quality of rural indigenous producers, in turn increasing chemical usage to increase productivity and meet basic food and economic demands (Municipio del Canton Chambo 2003). Although many producers use environmentally friendly agricultural procedures such as crop rotation and diversification, there is a need for technology and information for balancing consumption, sales, and environmental health. As a means for achieving a balance in production and environmental health, the NGO has focused on organic production, including teaching how to produce organic fertilizers using resources from the local area, assisting with soil and crop management, and encouraging producers with respect to their own agro-ecological practices (Gobierno Municipal de Colta 2001).

While conventional production often may induce a producer to spray with chemicals even when unnecessary⁵⁹, organic production represents a new way of living for many producers. One NGO representative said that “organic production requires a new concept, not only of production, but of life...people who get into organic production cannot produce in one lot of land, but live a life linked to the environmental concept”⁶⁰.

⁵⁹ Interview with NGO fourth representative, June 27, 2014.

⁶⁰ Interview with NGO third representative, June 26, 2014.

Although organic production represents a more sustainable way of living, and water is still an important issue to consider in agricultural production, the NGO does not focus on irrigation systems since local governments and private organizations already manage this⁶¹. The main reason for this is “that it is something that requires great capital and it corresponds to what the provincial council is doing. There are also some other institutions devoted to that specifically. It is not needed... it is something out of” the NGO’s ability⁶². Overall, the *Territorial-Environmental* area focuses on developing producers’ agricultural knowledge and abilities through informative meetings with field specialists from the NGO to learn about managing the land and soil without the use of chemicals.

Economic-Productive. This area focuses on agricultural production and commercialization as well as people’s opportunities and/or limitations with respect to improving them. Agricultural production is the major activity and income source among rural populations (Gobierno Municipal de Colta 2001). This activity is mostly undertaken by small indigenous families working by hand or with animal yokes⁶³ (Moreno, Rodriguez and Otero 2007; Gobierno Municipal de Colta 2001).

Many rural families are mothers with children but without husbands, because of migration of men to urban and international destinations in search of new sources of income (Jokisch 2002). While land for agricultural production has been available to indigenous populations, most of it has been in small plots, in remote locations, and of low quality, leading to widespread use of chemicals that may damage the environment

⁶¹ Interview with NGO fourth representative, June 27, 2014.

⁶² Interview with NGO fourth representative, June 27, 2014.

⁶³ Wooden crosspiece fastened over the necks of two animals and attached to the plow or cart that they are to pull.

(Gobierno Municipal de Colta 2001). Additionally, agricultural production among indigenous populations is often accompanied with limited technology, information, and machinery (Gobierno Municipal de Colta 2001). Rural populations, constrained by land size, location, and quality as well as by inadequate technology, are among the poorest people in Ecuador; in 2013, rural poverty was about forty-two percent while overall national poverty was about twenty-six percent (INEC 2013).

According to a report from the NGO, production and commercialization are important aspects to consider when seeking poverty reduction among producers (Municipio del Canton Chambo 2003). Commercialization is often characterized by male producers travelling long distances with rented transportation to the large markets in towns and cities within their area. Producers sometimes lack basic knowledge about market prices and may have limited transportation resources, increasing their vulnerability among market intermediaries⁶⁴.

In the desire for production and commercialization improvement, organic production has been one of the main focuses of the NGO, along with building a supply chain that strengthens farming, the handling of harvest and post-harvest, and entering into new national and international markets (NESsT 2009). The NGO focuses on management of production and commercialization through a business perspective, unlike previous developmental proposals characterized by organizations receiving outside funding for developmental plans and trainings, but whose plans were not feasible because they had not considered long-term sustainability and business management⁶⁵. Achieving this business

⁶⁴Interview with NGO second representative, June 23, 2014.

⁶⁵ Interview with NGO third representative, June 26, 2014.

perspective was an important NGO step in which production and commercialization became the principal long-lasting goals, coinciding with a reduced focus on other activities like health and education⁶⁶.

Similarly to the activities related to health and education, the NGO trains promoters to distribute knowledge among their communities in the province of Chimborazo⁶⁷⁶⁸. Although the promoter may be trained in a workshop, a field specialist visits each community at different stages of production to promote high-quality products and production⁶⁹. Specific activities of the *Economic-Productive* area, often occurring through the help of the agricultural promoter, include:

Field Assistance: The focus of the NGO is to train and inform promoters about improved agricultural practices, including seed classification and land and input management. Seed classification has been “developed for many years [and now the NGO has] a quality seed that is certified, but most importantly has high productivity”⁷⁰⁷¹. This process has been developed for producers’ land parcels through assistance of an NGO field specialist, resulting in each producer/community having a seed bank⁷². The other field specialist aspect relates to land and input management, characterized by training in making and spraying natural fertilizers, managing pest and disease control, managing weeds, recognizing timely harvest of products, and conducting post-harvesting⁷³. Seed classification

⁶⁶ Interview with NGO third representative, June 26, 2014.

⁶⁷ Interview with NGO third representative, June 26, 2014.

⁶⁸ Interview with NGO fourth representative, June 27, 2014.

⁶⁹ Interview with NGO fourth representative, June 27, 2014.

⁷⁰ Interview with NGO second representative, June 23, 2014.

⁷¹ Interview with NGO third representative, June 26, 2014.

⁷² Interview with NGO fourth representative, June 27, 2014.

⁷³ Interview with NGO fourth representative, June 27, 2014.

and input and land management are used by the NGO to increase productivity and quality of products.

Credit Opportunities: The NGO uses credit “as a tool aimed at strengthening the process of expansion of agricultural production [through the purchasing and expansion of land,] which can guarantee production volumes for commercialization” (NESsT 2009, 5). Credit is provided to women as a means of empowerment because “women have never had the opportunity to access to credit” and since the NGO “saw that the harvest...was long, so then...[they] implemented credit on small species”⁷⁴ of animals to diversify income, buy tools needed for production, and buy new pieces of land to increase production⁷⁵. Ultimately “if...[they] have a larger area...[they] will have more income, and if... [they] have more income...[they] have possibilities to meet the requirements of...[their] family”⁷⁶. Credit is an opportunity to expand production, increase income, while meeting producers and families’ personal consumption needs.

Market Analysis: The NGO focuses on determining the characteristics of in-demand products that can be produced in the province as well as finding buyers from national and international markets. The NGO found “potential in exportation and commercialization, so it started testing products. Before...[the NGO focused on] beans, [but]... it did not give much results [since] there were no exportations, then moved to quinoa”⁷⁷. Quinoa is a highly valued product around the globe that

⁷⁴ Interview with NGO first representative, June 19, 2014.

⁷⁵ Interview with NGO second representative, June 23, 2014.

⁷⁶ Interview with NGO third representative, June 23, 2014.

⁷⁷ Interview with NGO second representative, June 23, 2014.

can be lucrative for producers, motivating them to cultivate it⁷⁸. The selection of quinoa occurred through proposals “to community organizations, to councils... [and] to organize[d] women who discussed and then approved them”⁷⁹. This ultimately provided opportunities for producers to sell a high-demand nutritional Andean product while themselves also consuming it.

Reliable Purchaser: The NGO ensures the purchase of all quinoa from its producers. As a way to ensure good product quality for national and international markets, the NGO has constructed a processing plant where quinoa is processed and packed (NESsT 2009). “In this process the producers sell their product in the processing plant, located in Riobamba, where they receive a payment that includes the value-added cost of the product obtained in the processing plant. Part of the profit generated is intended to cover the operating costs of the processing plant” (NESsT 2009, 5). The NGO “with quinoa and with...[the supply chain] model...[has] become the largest exporter and producers of Organic Quinoa in Ecuador”⁸⁰. Meetings are held before each harvesting season between producers and the NGO to set and agree on prices that reflect the market demand⁸¹. Overall, producers consequently have a safe and reliable place to sell as much quinoa as they desire to promote income stability.

Transportation: Some communities working with the NGO are located in remote areas, inhibiting producers from access to transportation (Gobierno Municipal de

⁷⁸ Interview with NGO third representative, June 26, 2014.

⁷⁹ Interview with NGO third representative, June 26, 2014.

⁸⁰ Interview with NGO third representative, June 26, 2014.

⁸¹ Interview with NGO first representative, June 19, 2014.

Colta 2001), thereby limiting their ability to move their products from their communities to the processing plant in Riobamba. As mentioned previously, a field assistant will come to the producer's communities to assist the producers with their production. These visits may also be used to mitigate the costs and time of producers, since the field assistant can also collect quinoa from each producer. Transportation is not provided to all communities since "some communities have their own transportation and can deliver their product, but there are communities that are far away and do not have their own transportation so... [the NGO goes] and collect[s] the quinoa from there"⁸². Convenient transportation is helpful as it facilitates the collection of the products as well as reducing cost and time penalties to producers.

The *Economic-Productive* area helps improve the agricultural production and commercialization by increasing producer knowledge about improved methods for high agricultural productivity while simultaneously increasing the health of the environment and the producers' source of income. Since producers have been working with the NGO, they have had opportunities to sell their quinoa product and receive a fair payment reflecting market demand while avoiding losses incurred through using intermediaries.

According to the NGO's website, the two stated activities *Territorial-Environmental* and *Economic-Productive* were financed by FECD up until 2006 (Fundamylf n.d.). However, the NGO has been able to self-fund through technical services related to organic production provided to other organizations as well as from the sales of

⁸² Interview with NGO second representative, June 23, 2014.

quinoa products, which they purchase from producers and sell to national and international markets⁸³. The role of the NGO has been important in turning the producers' activities into a business, since producers now have increased their knowledge and information about organic production to improve their environment and quality of agricultural production while receiving a reliable income.

Overall, this section has addressed the second research question: What activities does Fundamyf perform to attain its goals? The NGO performs four main activities *Quality of Life*, *Political-Social*, *Territorial-Environmental*, and *Economic-Productive*, all accomplished through an umbrella project named *Indigenous Women Building their Future*. This project was divided up and financed by two different sources CAF, financing the *Quality of Life* and *Political-Social* areas, and FECD, financing the *Territorial-Environmental* and *Economic-Productive* areas. Although the first two areas are not highly active because of increased governmental intervention and expired funding, health and education particularly, the NGO is still engaged in issues the NGO addresses through activities such as quinoa consumption and women's-rights awareness⁸⁴. This health and education activity illustrates that, even though the NGO presently does not focus much on these issues, they still somehow integrate them into producers' production and agricultural activities.

The *Environmental* and *Economic-Productive* activities have seen increased focus as the NGO has increasingly concentrated its efforts on organic production. This concentration, although it no longer has external funding from FECD, is self-funded

⁸³ Interview with NGO third representative, June 26, 2014.

⁸⁴ Interview with NGO second representative, June 23, 2014.

through selling quinoa acquired from producers and sold to national and international buyers as well as delivery of technical assistance to other organizations in the form of consulting. New external sources of funding are scarce because of Ecuador's economic improvement in the last few years that has influenced some outside sources to drop Ecuador and go to other more needy countries⁸⁵. Ecuador has decreased its level of poverty in recent years through new governmental policies and concentration of resources in education and health, particularly in rural areas where such opportunities were previously either scarce or nonexistent (Diario Los Andes 2013; Ministerio de Salud Publica 2013).

Ultimately, the NGO now concentrates on organic production in efforts to improve the health of the soil as well as the health of families and communities who may have previously been exposed to hazardous agricultural chemicals. Organic production has also contributed to the economic well-being of producers, since now they can earn a reliable and decent price for their production, giving them a safe place to sell their products with knowledge of the market price of their products and without the worries associated with intermediaries.

The NGO has evolved from working for the empowerment of women organizations, to empowering municipalities and people through the creation of developmental plans in their locality, and finally to becoming the main actor for development by focusing on specific projects, such as agricultural production and distribution, to increase the well-being of many communities in the province of Chimborazo. This last and most recent phase was marked by the NGO concentrating its

⁸⁵ Interview with NGO first representative, June 19, 2014.

efforts in improvement of health, education, leadership, environment, and economic well-being of producers. While these NGO's efforts would seem to be appropriate in increasing producers' quality of life, the next research question will contrast the statements and perspectives of the NGO and its employees with producers' perspectives to determine whether the NGO is effective in attaining its goals.

How effective is Fundamyf at achieving its Goals?

The third and final research question is closely related to the previous research question, i.e., what activities does Fundamyf perform to attain its goals? Now that the NGO's activities have been described, we can examine their activities from the producers' perspective to determine whether these activities help the NGO achieve its goals and objectives, the fundamental question being: From the perspective of producers, do the activities of the NGO help increase the quality of life for small-scale agricultural women producers, families, and communities and alleviate poverty in the province of Chimborazo? To understand whether the NGO's activities are effective in enhancing quality of life and alleviating poverty, the Sustainable Livelihoods Approach (SLA), a tool used by organizations around the globe to assess poverty, will be used (Department for International Development 2001). The SLA is a comprehensive tool because it examines poverty alleviation in the form of strengthening capitals: "Every community has resources [and when] those resources, or assets, are invested to create new resources, they become *capital*" (Flora and Flora 2013, 10). Although the Sustainable Livelihoods Approach focuses on five different types of capital, all contributing to a balanced and sustainable community, this study focuses on four, *Human, Social, Natural, and Financial*, that will

be utilized to discover how the four areas of the NGO contribute to developing a sustainable life for women, families, and communities in the province of Chimborazo. In order to measure the effectiveness of the NGO's work, a scale of *high, medium, low* was used to assess the NGO's performance and involvement on each capital and each SLA core principle; *high* shows that all the NGO's programs that were applied have improved the capital, *medium* shows that not all the NGO's programs that were implemented have improved the capital, and *low* shows that the NGO's programs have led to little improvement in the capital (Le Coq, et al. 2011; Soares, et al. 2011; Kusters, et al. 2006). The measure of effectiveness has been summarized at the end of each capital in the form of a table.

The NGO focuses on the areas *Quality of Life, Political-Social, Territorial-Environmental* and *Economic-Productive*. These four areas have been analyzed by comparing them to the four capitals of the Sustainable Livelihoods Approach: *Human, Social, Natural, and Financial*, respectively. Next, a brief description of each type of SLA capital will be provided as well as a description of the six core principles, along with examples of activities performed in each area that align with the NGO's goals. An analysis will also be conducted as to whether such activities improve the producers' living conditions through the strengthening of these types of capitals and if the NGO activities follow the SLA core principles.

Quality of Life Area – Human Capital

Human capital “consist[s] of the skills and abilities of each individual within a community” (Flora, Flora and Fey 2003, 19), and “includes... education, skills, health, and

self-esteem” (Flora and Flora 2013, 11). In alignment with SLA, human capital illustrates that, in order to overcome poverty, ill health and lack of education must be addressed (Department for International Development 2001). In the *Quality of Life* area, as previously mentioned, the NGO focuses on the health and education of producers by implementing training workshops concentrated on diet improvement, water usage, child care, adult literacy, and awareness of women’s rights. To assess whether these training programs are effective, the next section gives examples of the training workshops examined and described from the perspective of small-scale producers.

Health

Poor health and malnutrition have been issues faced by rural populations in the province of Chimborazo that are influenced by poor diet and lack of governmental assistance with respect to water availability for food and hygiene purposes (Municipio del Canton Chambo 2003). This aligns with an NGO representative’s perspective that noted that producers often sold their nutritious products for less nutritious products, e.g., sold quinoa and bought noodles, due to lack of knowledge about nutritional contents of food⁸⁶. To improve on such circumstances, the NGO created workshops focusing on improving the diet of producers and their families by promoting the consumption of quinoa, a highly nutritious crop that they themselves produce. Although quinoa has traditionally been consumed as a soup, the workshops have focused on new ways of eating the product as a

⁸⁶ Interview with NGO second representative, June 23, 2014.

way of diversifying producers' diet. Most of the producers mentioned that in workshops they learned how to make quinoa rice⁸⁷, horchata⁸⁸, chicha⁸⁹, omelet, and more.

While quinoa consumption has since ancient times been the staple diet in the community, the workshops have introduced the product in new and innovative ways. They inspired the producers to quit selling their products in exchange for less nutritional ones, and to consume their own products, thereby improving their diet while saving costs. The producers stated that workshops exposed them to improving health through nutritional strategies. However, the training of promoters on preventive health strategies, mainly those relating to children's growth and water usage⁹⁰, based on the interviews with producers and NGO representatives, appear to no longer be active, and thus are difficult to assess.

Education

Poor education and household violence against women have been issues faced by rural populations in the province of Chimborazo; these problems have been attributed to a lack of governmental assistance and poor knowledge about women's rights (Gobierno Municipal de Colta 2001). As mentioned in a NGO report, rural indigenous populations, particularly women, have a high level of illiteracy in comparison to urban and mestizo populations (Municipio del Canton Chambo 2003). To address such issues, NGO workshops aimed at increasing literacy levels and awareness about women's rights were

⁸⁷ Quinoa cooked and eaten as a side dish, similar to rice and potatoes.

⁸⁸ Beverage made with quinoa and milk.

⁸⁹ Fermented and non-fermented beverage used in ceremonial/important events

⁹⁰ Interview with the third producer, July 2, 2014.

created⁹¹. Although adult literacy workshops are no longer part of the assistance given to the producers, the educational workshops mentioned by the producers involved women's rights and violence awareness, which had significant impact on women's lives and lives of their families, both by decreasing household violence and increasing women's self-esteem.

As one producer said:

They trained us through video, so then we also invited the men. We asked the institution to provide videos for the communities, so then the wife, husband, and children came and watched. [We saw] the change [in violence and women's rights]. But first the change was in us women, because if we only want them to change, they never change. Then we started preparing [ourselves]. I started studying, I only had primary school, and continued to study high school, and finished high school. Then I earned scholarships [through the NGO], I liked to study and prepare myself. I said in my house, 'study, get prepared' [to my children and husband]. I took long distance high school. For my community, [I said to] parents, mothers, 'study get prepared.' Some of them achieved. The young did not used to study and worked [instead], but [later] managed to study, they managed to get trained⁹².

With the help of training workshops, women increased their self-esteem and witnessed a decrease in household violence. Now women could focus on educational preparation and communal opportunities for themselves and for their families. As one producer said, women "were not valued before..., [but with the help of the workshops] there is now a little equality" and "now when we go to the community meetings they [the men] let us have a word, we ask to give our word, they let us talk, let us have an opinion, we are now taken into account"⁹³.

The NGO's *Quality of Life* area contributes to the improvement of families' nutrition, women's self-esteem, and an increased respect for women from families and

⁹¹ Interview with NGO third representative, June 26, 2014.

⁹² Interview with NGO first representative, June 23, 2014.

⁹³ Interview with NGO first representative, June 23, 2014.

communities. The level of involvement of the NGO with the *Quality of Life* or human capital can be described by the secondary data in Table 3 that shows the changes of under-nutrition levels of children of less than 5 years old in 2007 and in 2014. On the whole, under-nutrition decreased, but two of the five cantons

Table 3. Under-nutrition percentage of children younger than 5 years old in the cantons assisted by Fundamylf.

Canton	Under-nutrition Percentage	
	2007	2014
Chambo	0.91	1.06
Colta	6.49	3.32
Guano	4.00	1.93
Penipe	0.52	3.53
Riobamba	16.38	1.68

Sources: Modified to table (Lorge Rogers, et al. 2007; Ministerio de Salud Pública 2014)

saw an increase for reasons that remain unclear. Although the levels of under-nutrition in the canton cannot, obviously, be entirely attributed to the NGO workshops as not all communities of the province participated in the workshops (the NGO works with 25 of about 1000 communities in the province), the workshops stimulated producers and families to increase and continue their consumption of quinoa, which likely influenced, even if to a small degree, the under-nutrition in the area. Children's under-nutrition can be prevented through the improvement of parents' knowledge of a good diet, one of the NGO's goals which was promoted through workshops. Based on analysis of secondary data, reduction of under-nutrition was attributed to a healthier diet (increase consumption of micronutrients such as vitamin A and Iron) that prevents anemia and improves growth (Ministerio de Salud Pública 2014). Though the reduction in under-nutrition has not been significant between 2007 and 2014, the changes represent an improvement in the health of children in the five cantons in which the NGO works in the province of Chimborazo during the last seven years.

According to Kusters (2006), the assistance in programs or projects related to nutrition, health, and access to information can be used to strengthen human capital. While,

Fundamyf has provided workshops to improve producers' awareness of a healthier diet, to inform them about women's rights, and to reduce household violence, the NGO no longer offers workshops that focus on adult literacy and utilization of water. The programs on adult literacy have been decreased due to an increased on governmental assistance in such areas and programs in utilization of water have decreased as they require a lot of investment and it is already provided by third parties in the area. In Table 4, the name of the capital and the programs expected to be present in a program that would improve the capital based on the literature have been included. For instance, the improvement of human capital is described as the programs implemented on health, nutrition and the access to knowledge of producers. Overall, the level of involvement and effectiveness of the NGO with respect to human capital can be characterized as *medium* since the activities in the *Quality of Life* area have helped strengthen human capital and improved the life of producers, but significant opportunities remain in terms of improving nutrition and promoting literacy.

Table 4. Summary table of Fundamyf's effectiveness on improving *Quality of Life* Area – Human Capital.

Capital	Fundamyf's Area	Expected Programs	Fundamyf's programs	Effectiveness	Scale
Human	Quality of life	Health and nutrition	Water usage and Diet Improvement	Water Usage: no Diet: yes (improved nutrition levels)	Medium
		Access to information	Adult literacy, household violence, and women's rights	Adult Literacy: no Household Violence: yes Women's rights: yes (increased men's respect)	

Political-Social Area – Social Capital

Social capital consists of “mutual trust, reciprocity, groups, collective identity, working together, and a sense of a shared future” (Flora, Flora and Fey 2003, 11). This

type of capital demonstrates that relationships of trust, reciprocity, and exchange can be valuable, reduce costs, and provide informal safety networking among the poor (Department for International Development 2001). In this area, as previously mentioned, the NGO focuses on strengthening women's organizational and leadership skills through implementing training workshops related to committee creation and management. To determine whether these training programs are effective, examples of the training workshops and their benefits from the perspective of small producers are described below.

Women Organizations and Leadership Skills

Limited opportunity for women to learn and participate in decision-making processes in their communities has been a characteristic problem among rural populations (Gobierno Municipal de Colta 2001). As mentioned in a NGO report, women have often only been considered for lesser prestigious positions such as secretary or treasurer (Fundamylf 1997). To improve on such issues and as a way to manage the twenty-five communities they focus on, the NGO has focused on continuing to work with each community's women's organization through training promoters on health, education, agriculture, and livestock; these promoters then share their newly-gained knowledge within their organizations and their communities⁹⁴. These activities provide women with opportunities to lead and manage resources and information in their communities. Committee and promoter positions last a year and are designated to different people, encouraging all women from the organization to participate. This strategy strives to involve

⁹⁴ Interview with NGO third representative, June 26, 2014.

everyone and foster learning about different leadership positions and responsibilities⁹⁵.⁹⁶ Ultimately, each one of the twenty-five communities has a women's organization and each organization has a committee that then selects a promoter for each issue area, i.e., health, education, agriculture, or livestock, who will travel, receive training, and distribute knowledge to the community.

As one producer said, women “get organized in the workshops every time, [just] like speaking with you...[and] work on what is needed, [such as] how to make the [natural fertilizer called] biol, how to fertilize, [and] prepare [the] land⁹⁷.” During the interviews the producers mentioned that, since the NGO has reduced its focus on health and education, there are currently two promoters in agriculture and livestock⁹⁸. These training workshops have improved women's involvement and leadership opportunities, and bargaining power that allows them to work and acquire resources jointly with men in their communities as a way of achieving a shared future. As one producer explained:

women before could not go out to work, just wait for their husbands. So with the trainings we have moved on, we came out. Before husbands were the only ones in meetings, trainings. Only husbands...[and] now married women have said that even now sometimes [they] make an excuse to the husband since he does not want to send her [to meetings]. [They say] ‘my husband says to not go,’ ‘my husband says I should not go,’ ‘my husband says to not follow,’ but fighting and struggling, little bit at a time, the...[husbands] continue to understand⁹⁹.

Although the number of promoters have decreased in each community, the workshops and other training activities have created opportunities for women to get involved and become organized in their communities, and now everyone “treat[s] each

⁹⁵ Interview with the second producer, July 2, 2014.

⁹⁶ Interview with the fourth producer, July 2, 2014.

⁹⁷ Interview with the third producer, July 2, 2014.

⁹⁸ Interview with the second producer, July 2, 2014.

⁹⁹ Interview with the second producer, July 2, 2014.

other as colleagues...[women have] lost fear” of getting involved in their community¹⁰⁰. Ultimately, these workshops have helped men and women work together in their communities and appreciate the value of this cooperation. Leadership skills and women’s organizations provide women enhanced opportunities for recognition, bargaining power, and respect in their communities.

Kusters (2006) suggests that assistance in programs or projects related to endogenous (networking opportunities within their communities and families) and exogenous (networking opportunities with other communities and organizations) social opportunities can strengthen social capital. For example, “networks and connectedness, membership of more formalized groups, and relationships of trust, reciprocity, and exchanges” (Department for International Development 2001, 21) can be part of social capital. Fundamylf has provided workshops on how to develop committees and how to become a legally registered organization in their canton, which in turn has improved the producers’ ability to work together as a group while networking with other producers. The NGO’s *Political-Social* area thus contributes to women’s knowledge about organizational structures and leadership positions and increases their opportunities for participation, trust, and management of resources in their communities. The level of effectiveness and involvement of the NGO with respect to social capital can be characterized as *high* since the activities in the *Political-Social* area have significantly increased the producers’ mutual trust, cooperation, and sense of a shared future (Table 5). Overall, the activities developed

¹⁰⁰ Interview with the second producer, July 2, 2014.

in the *Political-Social* area strengthen social capital and improve networking opportunities and the living situation of producers, all important goals of the NGO.

Table 5. Summary table of Fundamylf's effectiveness on improving Political- Social Area – Social Capital.

Capital	Fundamylf's Area	Expected Programs	Fundamylf's programs	Effectiveness	Scale
Social	Political-Social	Trust relationships, reciprocity, and exchanges (endogenous)	Organizational creation and leadership skills (Women organizations)	Women Organizations: yes Leadership Trainings: yes	High
		Membership of more formalized groups, connectedness (exogenous)	Legalization of women's organizations (networking and bargaining power)	Legalization of women organizations: yes	

Territorial-Environmental Area – Natural Capital

Natural capital “includes the air, water, soil, biodiversity, and weather that surround us and provides both...possibilities and” limitations to communities (Flora and Flora 2013, 11). This type of capital illustrates the importance of natural resources, particularly when agricultural production is a primary occupation of the community, since they are important for the health and well-being of both people and animals (Department for International Development 2001). In this area, as previously mentioned, the NGO focuses on improved interactions between producers and their environment, accomplished through workshops in organic production. The workshops aim to promote a balance between agricultural production, costs, and environmental health through reduction or elimination of chemical usage and exposure to chemicals. Although all the producers own their land, they face limitations related to water availability, land size and quality, and weather condition. For instance, as a way of overcoming such conditions the NGO has focused on organic quinoa production since it is a product that requires little water and grows in harsh

environments¹⁰¹. To assess whether these training programs are effective, examples of the training workshops and their benefits from the perspective of small producers will be described.

Organic Production

As a way to improve the quality of land, improve agricultural production, decrease environmental and producer exposure to chemicals, and decrease production costs, the NGO has focused on promoting organic production through educational workshops. This approach often results in a new way of living, because producers are required to change their production habits and develop new knowledge¹⁰². As one producer said, “before we did not know [how to produce sustainably, instead] we damaged the soil since we planted with chemical fertilizers, but now it's all organic...[and production] is going much better”¹⁰³. Even though organic production provides opportunities to improve land quality, production, and cost of production, as well as reduce exposure to chemicals, producers still face a number of limitations.

One characteristic problem faced by producers in the province of Chimborazo is that their land holdings are often detached, meaning that they often may have three to five small and disjoint plots of land at different locations within their community¹⁰⁴. Although they own the land and the dispersed locations suggest opportunities for diversified production, producers are forced to plan and manage their crops according to location,

¹⁰¹ Interview with NGO fourth representative, June 27, 2014.

¹⁰² Interview with NGO third representative, June 26, 2014.

¹⁰³ Interview with the first producer, July 2, 2014.

¹⁰⁴ Interview with NGO fourth representative, June 27, 2014.

weather, and soil type. Additionally, all producers mentioned that irrigation systems may be scarce or nonexistent in communities, affecting production and resulting in producers either carrying their already scarce water supply to the crops or depending on rain. Ultimately, agricultural production is a difficult endeavor that may be made even more difficult by remote and dispersed plots of land, scarce water supplies, and unpredictable weather.

To overcome such issues, the NGO has focused on organic production to improve land quality, decrease producer costs, and reduce chemical exposure. While organic production is the focus of the NGO, the main production is still quinoa, since this crop uses relatively low quantities of water and grows in harsh environments. Quinoa's production requirements have made it a manageable crop; as one producer said "quinoa...has not given us much work... like potatoes, carrots, and garlic... [those are] hard since if we get a plague, then everything has to be lost"¹⁰⁵.

Due to its particular qualities, quinoa is the top crop priority for production, since it represents a safe source of income for producers because they can sell as much as they produce to the NGO¹⁰⁶¹⁰⁷. Organic production aims to improve the quality of land; as one producer mentioned, "we used to use chemicals, instead of increasing, the plants turned out to be small"¹⁰⁸. Organic production has also decreased the production cost to producers since they no longer purchase costly chemicals, but use their own natural resources to make fertilizers¹⁰⁹.

¹⁰⁵ Interview with the second producer, July 2, 2014.

¹⁰⁶ Interview with the second producer, July 2, 2014.

¹⁰⁷ Interview with the third producer, July 2, 2014.

¹⁰⁸ Interview with the first producer, July 2, 2014.

¹⁰⁹ Interview with the fourth producer, July 2, 2014.

Kusters (2006) states that programs or projects related to physical access and control over targeted resources can be implemented to strengthen people’s natural capital. For example, people can have “more secure access to, and better management of, natural resources” (Department for International Development 2001, 23), which can increase natural capital. Fundamylf has provided workshops on how to develop natural fertilizers and how to manage the soil to increase productivity, which has enabled producers to improve the soil while decreasing the utilization of chemicals (Table 6). The NGO’s *Territorial-Environmental* activities have improved producers’ knowledge and sustainable techniques regarding soil through the production of quinoa; however, water availability and harsh weather are still issues facing the producers. The level of involvement and effectiveness of the NGO with regard to natural capital can be characterized as *medium* since the activities in the *Territorial-Environmental* area have improved farmers’ knowledge about producing sustainably, thus increasing their awareness about the environment, though such activities have not improved the physical availability or control of other resources, such as water. Overall, while resources such as water could be improved, the NGO workshops strengthened the natural capital and, according to the producers, increased their knowledge of organic agricultural production and ultimately their opportunities to improve their quality of life which aligns with the NGO’s goals.

Table 6. Summary table of Fundamylf’s effectiveness on improving Territorial-Environmental Area – Natural capital.

Capital	Fundamylf’s Area	Expected Programs	Fundamylf’s programs	Effectiveness	Scale
Natural	Territorial-Environmental	Securing and controlling of natural resources: air, water, and soil	Organic production (soil)	Secure Soil: yes (ownership) Control of Soil: yes (organic production)	Medium

Economic-Productive Area – Financial Capital

Financial capital relates to “saving, income generation, fees, loans and credit... [and is] much more mobile than other capitals and tends to be privileged because it is easy to measure” (Flora and Flora 2013, 11). This type of capital contributes to the ability to consume goods and services, but it is less available among the poor (Department for International Development 2001). In this area the NGO, as previously mentioned, focuses on production and commercialization improvement through market analysis, income generation, training workshops related to seed classification and land management, as well as credit, savings, and transportation availability to producers.

Although the NGO focuses on production and commercialization, in order to meet market demands, the NGO constructed a processing plant in Riobamba where quinoa is processed and packed for distribution. This processing plant is self-funded and its operational costs, “how much is spent on the plant, [and] how much is spent on the distribution¹¹⁰,” are accounted in the price the producers get when selling their products. To assess the effectiveness of the NGO’s activities in the *Economic-Productive* area, examples of the training workshops and NGO’s assistance are examined below and described from the perspective of small producers.

Market Analysis and Reliable Purchasers

A primary commercialization problem encountered by agricultural producers is finding safe and reliable buyers. Producers sell their crops in large markets within their

¹¹⁰ Interview with NGO first representative, June 19, 2014.

area, where many of them must deal with intermediaries who can diminish producers' income opportunities (Gobierno Municipal de Colta 2001). One producer stated that when they go to the markets to sell products they "sell everything to the intermediaries. They buy us cheap, but you sell" everything¹¹¹. This problem places the producer at a disadvantage, since the intermediaries' decreases the producers' security of a reliable price or buyer.

To improve this situation the NGO has focused on analyzing the market to find new and reliable buyers nationally and internationally with whom producers can sign contracts establishing a fair price, often many times above the local market price¹¹². One producer mentioned that once she started working with the NGO "money came safely and we were happy because it was a good price and [that is why] we have continued to plant¹¹³" quinoa. Overall, a reliable buyer and an established fair price can provide producers with a safe and decent income from quinoa production.

Field Assistance

Although agriculture has historically been a principal activity in rural communities, it has often incorporated heavy chemical usage in an attempt to overcome issues related to land quality and weather conditions. However, the NGO, with the technical assistance and agricultural training workshops, has focused on organic production and the development of natural fertilizers, seed classification for productivity improvement, and both harvest

¹¹¹ Interview with the first producer, July 2, 2014.

¹¹² Interview with NGO first representative, June 19, 2014.

¹¹³ Interview with the second producer, July 2, 2014.

and post-harvest strategies¹¹⁴. The training workshops have improved production and producers' ability to compete in national and international markets; as one producer said:

The training was about how to make [natural fertilizer]...how to plant...that is what... [the field specialist] taught us. Also that those who planted quinoa, had to have a field notebook to see the dimensions of land, the planting date... hilling¹¹⁵ date, [and] harvesting date¹¹⁶.

Field assistance has helped improve quinoa production, since producers are now aware of the importance of seed classification; as one producer said, before they “just took what came out of the bush and save [it],” but now “we... [do the seed classification] ourselves, we save the seed. In the plant [bush] we begin choosing, what is better [and so then] we begin to classify quinoa seed¹¹⁷.” Since international demand for quinoa is high, there is a need for increased production levels as well as high-quality products¹¹⁸. Productivity levels and quality have improved through seed classification and improved soil management. Producers indicate that production “used to be less”¹¹⁹, but now “it has increased”¹²⁰.

The NGO also assists producers with promoting a timely harvest and post-harvest strategies. While all the producers mentioned that field specialists assisted them with workshops about harvesting, the producers said they also hired threshing¹²¹ trucks that decreased labor intensity but increased production costs. Additionally, producers stated that the NGO assisted them with post-harvest strategies such as cleaning the crop of shells

¹¹⁴ Interview with NGO fourth representative, June 27, 2014.

¹¹⁵ Hilling means to bank up a plant with soil.

¹¹⁶ Interview with the second producer, July 2, 2014.

¹¹⁷ Interview with the second producer, July 2, 2014.

¹¹⁸ Interview with NGO first representative, June 19, 2014.

¹¹⁹ Interview with the second producer, July 2, 2014.

¹²⁰ Interview with the fourth producer, July 2, 2014.

¹²¹ Threshing is the process of separating the grain from the plant through a rotating device.

and impurities as well as drying the quinoa seeds before selling them to the processing plant¹²²¹²³. As mentioned by the producers, both characteristics, cleanliness and dryness, are required for quinoa producers to receive the price agreed to during pre-harvest meetings. Overall, although threshing increases the costs of production among producers (the NGO does not facilitate machinery), the training workshops related to soil practice and input management have increased both quinoa production and income opportunities for producers.

Credit

The NGO has stated that it provides producers with opportunities to acquire micro-credit to improve their agricultural production opportunities¹²⁴. However, according to the producers, even though this process did help producers acquire new land, agricultural inputs, and livestock, it is no longer active. One producer mentioned:

Before [credit was given], yes, but they say it is over, so then they don't give us anymore. I was sad and say I hope it can come back like before since they have taken it from us. I do not know why, [maybe] since production is better and...we all agree on that, then they have removed that promotion¹²⁵.

Although credit is no longer an option for producers and they have said savings is not a priority, this does not appear to be a crucial deficiency among the rest of the interviewed producers. Many of them indicated they do not like to take out loans since they

¹²² Interview with the first producer, July 2, 2014.

¹²³ Interview with the fourth producer, July 2, 2014.

¹²⁴ Interview with NGO third representative, June 26, 2014.

¹²⁵ Interview with the first producer, July 2, 2014.

are afraid of getting into unaffordable debt¹²⁶¹²⁷¹²⁸. On the other hand, two producers mentioned they had credit at other institutions, indicating the presence of already-existing credit¹²⁹¹³⁰. Overall, this NGO strategy is no longer active and thus does not actively influence or enhance the producers' quality of life.

Transportation

Isolated locations, poor infrastructure, and scarce economic resources have made transportation a significant issue among producers in the province of Chimborazo (Gobierno Municipal de Colta 2001). Many of them are forced to rent trucks for delivering their products to markets to sell. To reduce producers' transportation costs when selling quinoa, during visits to the producers' communities the field specialist may also collect harvested quinoa from the producers¹³¹¹³². All producers highlighted that this approach to transportation saves both time and money, but it is not always available because it depends on field specialist availability, particularly during harvesting season. One producer stated:

The first time the engineer came with his car, he paid us, then left. We did not spend on transportation or in time, nothing. Now, likewise others have quinoa and it...[can get] a bit crowded because...when you are harvesting crops [then] everywhere [else]...is too, then the engineer...[is busy in other communities and cannot come] to pick it up so we brought it ourselves but by renting a car¹³³.

¹²⁶ Interview with the first producer, July 2, 2014.

¹²⁷ Interview with the second producer, July 2, 2014.

¹²⁸ Interview with the third producer, July 2, 2014.

¹²⁹ Interview with the first producer, July 2, 2014.

¹³⁰ Interview with the fourth producer, July 2, 2014.

¹³¹ Interview with NGO first representative, June 19, 2014.

¹³² Interview with NGO fourth representative, June 27, 2014.

¹³³ Interview with the second producer, July 2, 2014.

While NGO-provided transportation services may help a producer save cost and time, it does not represent a reliable service since, as the producer indicated, it may be unavailable during harvesting season. On the other hand, such transportation is available only for quinoa since it is the only product purchased by the NGO, implying that transportation issues for other crops are still problematical. Overall, it is helpful assistance for quinoa producers, but somewhat unreliable because of its irregularity.

According to Kusters (2006), to strengthen farmers' financial capital, the programs or projects that can be implemented typically relate to income, savings, and credit. Fundamyf has provided workshops on product quality, crop productivity, through seed classification and input and soil

Table 7. Poverty percentage of cantons assisted by Fundamyf in comparison to the province.

management, and strategies for harvesting and post-harvest activities, which affect income. Additionally, the organization has given assistance regarding commercialization of quinoa

Canton	Poverty Percentage	
	2001	2010
Chambo	84.6	70
Colta	96.9	93.3
Guano	89.5	81
Penipe	89.4	73.7
Riobamba	58.3	46.5
Chimborazo Province	76.4	66.5

in the national and international market

Sources: Modified to table (Sistema Nacional de Informacion 2014).

and has found reliable buyers. Ultimately, the NGO's activities in the *Productive-Economic* area, according to the interviews developed with the producers, contributed to the increase of income. The economic improvement can be illustrated by the secondary data on poverty indicated on Table 7. According to Ecuador's national census of 2001 and 2010, poverty has decreased in all five cantons that Fundamyf is assisting, while the province poverty rate has decreased at a lower rate than the average. Although the poverty reduction in the cantons cannot, obviously, be entirely attributed to the assistance of the

NGO since only 25 of about 1000 communities assisted to the workshops, we can acknowledge that poverty has been reduced in the area and thus quality of life of producers has been improved economically. However, according to the interviews, income of producers has improved, but at this point, they have not received training on how to find and maintain relationships with national and international buyers, which can foment dependency of producers from the organization's assistance. Overall, credit has been eliminated (influenced by third party organizations assisting producers with credit opportunities), transportation opportunities are unreliable, and income improvement has been provided only through the assistance of the organization. The level of effectiveness and involvement of the NGO is *medium* because the *Productive-Economic* activities have improved income of producers, but it has been dependent on the assistance of the NGO and there are no other available or reliable sources to access credit or transportation (Table 8).

Table 8. Summary table of Fundamyf's effectiveness on improving Economic- Productive Area – Financial Capital.

Capital	Fundamyf's Area	Expected Programs	Fundamyf's programs	Effectiveness	Scale
Financial	Economic-Productive	Income, Savings, Credit, and Transportation	Income generation	Income: yes (lowered poverty)	Medium
			Access to Credit	Credit: no (provided by third parties)	
			Assisted transportation	Transportation: no (irregular)	

Addressing the third and last research question has provided a deeper understanding with regard to the effectiveness of the NGO's activities and how they have helped producers during the most recent phase of the organization's evolution. Based on

producers' responses, the NGO's activities have increased the quality of life and decreased rural poverty among small scale women farmers, families, and communities in the province of Chimborazo.

The *Quality of Life, Productive-Economic, Political-Social, and Territorial-Environmental* areas have been addressed through training workshops and providing technical assistance. Although the SLA model from the Department for International Development includes five capitals, the analysis included four capitals (human, social, natural, and financial) that aligned with the work of the NGO (*Quality of Life, Political-Social, Territorial-Environmental, and Productive-Economic*). Elements, such as transportation and irrigation systems, of the fifth capital (physical) were embedded in the analysis and described as part of financial and natural capital, respectively. Overall, the workshops focus on different issues, such as organizational strengthening, organic agricultural practices, and nutrition, has positively transformed living conditions of producers, families, and communities in the province of Chimborazo.

Core Principles of the SLA

The SLA has six core principles used to understand if projects have or can improve the well-being of families and communities (Department for International Development 2001). Next a comparison of Fundamyl's work to the core principles of the SLA and how that work, on a scale of *high, medium, low*, aligns with the core principles will be described (Le Coq, et al. 2011; Soares, et al. 2011).

1. People-centred: focuses on what matters to people and works on meeting their needs.

The work of Fundamyf has a *high* degree of correspondence with the first core principle of the SLA since the NGO focuses on vulnerable producers and families and how their livelihoods are shaped and affected by the resources and opportunities in the area and in the market, particularly when producing quinoa.

2. Holistic: comprehensive focus that encompasses all five capitals (social, human, natural, financial, and physical) that affect the well-being of the producers.

The work performed by the NGO has a *medium* degree of alignment with the core principle as it does not include all five capitals as its main goals. The missing fifth capital is characterized by improving the physical resources, such as water irrigation and transportation, of the producers. Since the fifth capital was not a main goal of the organization, the opportunities among producers to improve all aspects of their lives diminishes. While the NGO addresses social, human, natural, and financial capital to enhance farmers' well-being, physical capital or infrastructure (transportation, water supply, and irrigation) is not a main concern of the organization, since governmental and private institutions already attend to that¹³⁴.

3. Dynamism: assistance to recognize and prepare producers for external shocks.

The organization's work has a *low* degree of alignment with this core principle since it only focuses in the sale of one product for the improvement

¹³⁴ Interview with NGO first representative, June 19, 2014.

of livelihoods. Further, the NGO's assistance might foster producers' dependency, which might reflect a lack of dynamism and flexibility if a potential economic or environmental shock unfolds. Fundamyf specializes in assisting producers in the production, commercialization, and exportation of quinoa. Quinoa was carefully selected, proposed, and accepted by the NGO and the producers as a development project since there is high demand for it and it receives a good price from health conscious consumers in developed nations. Although all producers implement crop rotation and crop diversification (potatoes, carrots, beans, etc.) on their land, they are not able to acquire the NGO's assistance in the production and sale of crops other than quinoa. The organization's assistance could also foster farmers' dependency since the organization finds and acquires buyers for the producers, acting as an intermediary. The selling of quinoa only and fostering producers' dependency limits flexibility and ability to overcome external shocks.

4. Build on strengths: people's potentials and available resources should be utilized and be taken advantage of when creating developmental projects.

The work of Fundamyf has a *high* degree of alignment with this core principle since it builds on existing strengths (producers' agricultural knowledge). Farmers have recently learned from the NGO to plant crops using organic practices, but they had previously implemented sustainable agricultural practices such as crop rotation, crop diversification, and cover crops that continue to be used and incentivized by the NGO when working on developmental projects.

5. Micro-macro links: understanding and potential improving of policies at the national (macro) level and local (micro) level affecting producers' opportunities to thrive.

The work of the NGO has a *medium* degree of alignment with the core principles as it only focuses on the micro level through assisting producers in the development of farmer groups to increase their leadership skills and participation with local governmental institutions. In the first phase, Fundamylf assisted, created, and empowered women's organizations to find and solve problems in their communities. In the second phase, those organizations, with the NGO's assistance, worked with local municipalities to improve policies and partnerships in their localities to improve their quality of life. The macro level focus, in terms of empowering farmers to understand and get involved with national policies, was not present.

6. Sustainability: resilience among producers, when external shocks occur, should do not depend on external support.

The sixth and final core principle implies that producers should be able to support themselves in the case of an external shock, particularly in the event that the NGO assistance would cease. The assistance of the NGO has a *low* degree of alignment with this core principle since the producers are dependent on the NGO's assistance. Although the organization convenes meetings to agree on product prices, the NGO assists with the handling of contracts, understanding product demands, and finding buyers in the national and international market. This can be problematic since there is little incentive or

opportunity for producers to be trained or prepared and to be resilient if/when the organization ceases to assist them.

The Sustainable Livelihoods Approach is helpful in analyzing the work of the NGO, not only in terms of enhancing the capitals that contribute to a strong livelihood among producers, but also through the core principles. The core principles serve as a guide and focus on important elements and overall goals when implementing projects to strengthen people's capitals and livelihoods. Overall, the work developed by Fundamyf has strengths and weaknesses, and its important impacts for quinoa producers will be discussed in the next chapter.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

This case study illuminates the evolution, goals, and projects of Fundamyf, a non-governmental organization that works toward the poverty alleviation of small-scale quinoa producers in the Chimborazo province of Ecuador. In order to understand Fundamyf's role in quinoa production and commercialization as a means of achieving poverty reduction and quality of life improvement among quinoa producers, three research questions were explored: What is the nature of Fundamyf (goals, history, etc.)? What activities does Fundamyf perform to attain its goals (projects, programs, etc.)? And how effective is Fundamyf in achieving its goals (benefits to producers)?

The findings suggest that although Fundamyf has maintained its original goals (e.g., reduce poverty and increase the well-being of female producers and families in the province of Chimborazo), its main activities have evolved over time in three main phases¹³⁵. The first phase focused on empowering women in rural communities through training workshops that increased their knowledge about resource management and organizational strengthening. During the second phase, due to a demand of local governments to respond to the needs of producers, the NGO facilitated the communication between women (from the first phase) and municipalities in the province. The NGO's assistance opened opportunities to women, families, and communities to collaborate with

¹³⁵ Interview with NGO third representative, June 26, 2014.

the local government and provide increased access to governmental resources while also strengthening local government management.

During the third and current phase, due to a need of for increased income and health improvements among producers, the NGO has focused on strengthening women producers' knowledge, opportunities, and living conditions through workshops related to organic agricultural production, nutrition, and leadership and organizational strengthening. The current phase has also been characterized for having a focus on income generation, which was influenced by limited access to resources, through the assistance of production, commercialization, and exportation of quinoa and through consulting services to other institutions about quinoa and developmental strategies. However, the income generation activities have essentially resulted in the NGO becoming an intermediary between the producers and buyers.

The impacts and contributions of the research findings will be explained next and will be organized as follows. First, an analysis of key findings of the case study will be provided. Second, a discussion of the study's contributions to the literature is portrayed. Third, research limitations are discussed, followed by directions for future research, and finally, a summary of the findings and conclusions of the research is presented.

Key Findings

Long-term impact

One key finding that emerged from the study relates to the long-term impact on quality of life that Fundamyf's work had on producers in the province of Chimborazo, Ecuador. It is important to investigate the long-term impact NGOs have on their constituencies because, as Farrington, et al., (1993) notes, long-term impacts are sustainable and therefore preferable to short-term impacts that tend to dissipate when an NGO withdraws its assistance. Fundamyf has focused on women's empowerment as a way to reach out to entire families and communities; as one NGO representative mentioned, if "we train the mom that integrates the husband, children, and the whole family"¹³⁶. A history of discrimination against women and women's limited involvement in their communities in Ecuador (Lavinás Picq 2012) provides a setting for the finding related to Fundamyf's work on empowering women through leadership and organizational skills to improve opportunities in their communities and produce long-lasting impact on them and on their communities. For example, producers mentioned that the training workshops on women's rights and leadership skills helped them to become respected and be heard in their communities. As stated by one producer, "women before could not go out to work, just wait for their husbands. So with the trainings we have moved on, we came out"¹³⁷.

¹³⁶ Interview with NGO second representative, June 23, 2014.

¹³⁷ Interview with the second producer, July 2, 2014.

The NGO's assistance in organizational strengthening and asset management has given women producers the knowledge and encouragement to find, network, and acquire resources for improving their lives, families, and communities. As producers said, after the training workshops everyone "treat[s] each other as colleagues...[women have] lost fear"¹³⁸ of getting involved in the community and "now when we go to the community meetings they [the men] let us have a word, we ask to give our word, they let us talk, let us have an opinion, we are now taken into account"¹³⁹. This illustrates how gender relationships have changed in response to Fundamyf's work. "The...[husbands] continue to understand" and "now...let us have an opinion...[women] are now taken into account." Men's perceptions have also changed and they now recognize the wealth of capabilities and values that women provide, a type of recognition that seems unlikely to revert back even if the NGO were to withdraw its assistance. These programs have opened up women's opportunities and networking strategies by providing them with organizational knowledge and management skills that ensure respect in communities and creation of job opportunities and long-term leadership positions.

A second key long time impact identified from the study relates to organic production as a way to mitigate poor agricultural practices and land exploitation that were negatively influenced by Spaniard conquests in rural Ecuador; these include excessive chemical usage as a way to overcome small size, isolated locations, and poor quality of land (Wasserstrom and Southgate 2013). Training in sustainable practices obtained through

¹³⁸ Interview with the second producer, July 2, 2014.

¹³⁹ Interview with NGO second representative, June 23, 2014.

the NGO training workshops have produced a positive impact on the health and economic situation of producers, families, and communities while respecting the environment.

Workshops focusing on organic production have allowed producers to save costs and also have introduced them to a new way of living. Organic production is an important step in the improvement of lives among producers since it has positively transformed their agricultural practices while also diminishing exposure to hazardous chemicals. As one producer said that, before working with the NGO, she and her parents planted with a lot of chemicals, but after the parents died she had no money to continue using chemicals and the crops grew small and weak. For instance, after working with the NGO and learned how to “plant with the natural fertilizer,... [it] was a success”¹⁴⁰ for her farm.

In addition to reduction of chemical exposure due to organic production, producers’ income has also increased; as one producer said:

my problem was that we could not get money easily. At times my husband said, “I cannot make all the money for the kids’ education,” we had 4 children. Some went to elementary school, others went to high school, then we could not get money. My husband, as I said, felt bad about me that he was the only one who worked. I suffered, but when I started to plant quinoa then I also had [money] for me. It was quite helpful... [Although before producing quinoa] I did have animals [to sell and get income] but not enough. We sold \$20, \$30, and a hen for \$5, but it was not enough to pay for the education for the children¹⁴¹.

This producer’s statement not only indicates that organic quinoa production has presented income opportunities to her and her family, but that it has also increased her self-esteem through letting her make a substantial contribution to her children’s education.

¹⁴⁰ Interview with the first producer, July 2, 2014.

¹⁴¹ Interview with the fourth producer, July 2, 2014.

The work of the NGO has positively transformed the lives of people and communities since women can now participate in their communities and generate income on their own while reducing or even eliminating chemical exposure to both families and to the soil. Overall, these are findings that illustrate how women's opportunities, including engagement in organic production, deeply affect producers' lives and will continue to be influential and contribute to the long-term well-being of female producers, families, and communities in the province of Chimborazo.

Becoming an Intermediary

Fundamyf has changed its operations from the second to the third and current phase since it has shifted from primarily relying on external funding toward implementing self-funded strategies for developmental projects. Fundamyf is currently focusing on utilizing a model in which income is generated in two ways: through the assistance of production, commercialization, and exportation of quinoa to producers and through consulting services provided to other organizations related to developmental strategies¹⁴². According to an NGO representative, the income generated from the two activities is invested in the organizational development projects¹⁴³. Although the literature suggests that the work of NGOs around the globe is normally characterized for being non-profit and that their funding is typically acquire through external national and international sources (Iriye 2002), it also suggests that as many funding sources can be scarce and that many

¹⁴² Interview with NGO third representative, June 26, 2014.

¹⁴³ Interview with NGO first representative, June 19, 2014.

organizations, as a way to overcome limited funding, have focused on income generation activities to maintain their operations (Bebbington 1997).

Fundamyf's shift from the second to the third and current phase has been in response to limited international funding sources used for Ecuadorian developmental projects related to policy and constitutional changes as well as the country's economic improvement¹⁴⁴. A new presidency started in 2006, and since then Ecuador has been going through a variety of political and economic changes. These changes include the implementation of three main plans, a plan from 2007 called National Development Plan¹⁴⁵, a second plan in 2009 called National Planning for Good Living¹⁴⁶, and a third implemented in 2013, which held many of same goals as the second plan and bears the same name. These plans were implemented to promote a more democratic, sustainable, and equitable development in Ecuador (Secretaria Nacional de Planificacion y Desarrollo n.d.), and to strengthen the relationship between nature and human beings (Secretaria Nacional de Planificacion y Desarrollo n.d.). These plans implemented new policies to alleviate the high poverty levels through agricultural development, particularly through the investment of technology, infrastructure, and subsidies in rural areas (Instituto Nacional de Investigaciones Agropecuarias 2010). The national plans and policies have influenced the Ecuador's economy, which according to the World Bank, the Gross Domestic Product (GDP) of Ecuador has tripled in the last decade, from \$32.4 billion in 2003 to \$90.02 billion

¹⁴⁴ Interview with NGO third representative, June 26, 2014.

¹⁴⁵ **Original:** Plan Nacional de Desarrollo.

¹⁴⁶ **Original:** Plan Nacional para el Buen Vivir.

in 2013 (The World Bank 2014); this has resulted in outside funding sources leaving Ecuador to focus on needier countries¹⁴⁷.

This shift in available international funding has influenced Fundamyf to work on more sustainable long-standing organizational practices that allow for self-funded strategies¹⁴⁸. The NGO, as a means for self-funding projects, has focused on consulting services and assisting producers in production, commercialization, and exportation of quinoa. The second self-funded strategy has been accomplished through construction and utilization of a packaging plant in Riobamba, the capital of Chimborazo; this plant prepares and packs quinoa for national and international sales. Product sales are accomplished through market analyses performed by the NGO to identify specific characteristics of Andean products that are in demand. The NGO also finds buyers for such products and develops future contracts between the NGO itself, representing all producers, and national and international buyers¹⁴⁹.

The income generation model implemented by the NGO through self-funded strategies, according to the producers, has improved both their incomes and their ability to organically produce quinoa. However, it also seems that the NGO has become an intermediary or “middleman” between producers and buyers. Interviews with producers suggest that, before working with the NGO, one of the main issues among producers was their inability to avoid using intermediaries when bringing their products to markets¹⁵⁰¹⁵¹;

¹⁴⁷ Interview with NGO first representative, June 19, 2014.

¹⁴⁸ Interview with NGO third representative, June 26, 2014.

¹⁴⁹ Futures contracts indicate that two parties agree to buy or sell a specific quantity of a product at a fixed price.

¹⁵⁰ Interview with the first producer, July 2, 2014.

¹⁵¹ Interview with the second producer, July 2, 2014.

producers' lack of expertise about market prices tended to inhibit their ability to acquire fair prices for their products. Although the NGO is selling the producers' products to the market, i.e., working as an intermediary, it seems the producers do not perceive the NGO as an intermediary.

The NGO, while not perceived as an intermediary, is essentially working as one and the literature cautions that "middlemen make 'excessive profits' because of market power...[which] is at the root of much of the concern" for developmental efforts (Chau, Goto and Kanbur 2009, 1). Although the producers dealt with for-profit intermediaries in an open market, a comparison between open-market intermediaries and an NGO-based intermediary with social developmental objectives raises interesting and important issues as to how the NGO actually ensures a fair price for the producers (Chau, Goto and Kanbur 2009).

Placing the NGO as an intermediary is focused on whether the capital and specialized knowledge provided by the NGO is the only or at least the best way to ensure producers' opportunities for a fair price in an open and competitive market. Even though a capital-related and specialized knowledge of the NGO can be helpful to producers, its influence may foment dependence on the producers of the NGO's services. According to Farrington, et al., (1993), NGOs' work around the globe has been mostly focused on empowering people, and this work is often considered to be a temporary service because organizations often focus on strengthening local organizations up to a level at which that locals can and may want to take over the work initially performed by the NGO. If a fundamental goal of Fundamyf is to empower female producers, then perhaps the NGO should facilitate training workshops to help them independently find buyers and sell their

products in open and competitive markets, maximizing their personal profits and increasing their financial well-being. The producers' future independence may relate to the development of local growers associations, similar to others in the area, such as COPROBICH¹⁵². Developing a growers association that specializes in organic quinoa production and sales and empowers producers to control management and decision-making would be a valuable step towards independence from significant intermediaries. It is therefore unclear whether the assistance of the NGO, particularly in quinoa production is benefitting the producers in the long term since it may not be promoting self-sufficiency when selling their products. Rather, producers are currently dependent on the NGO as an intermediary to locate buyers. It seems at this point that, if the NGO leaves, the producers might be unable to find and sell their products on their own through lack of business and market expertise.

Furthermore, Fundamyf has focused on income generation as a way to find new project funding, but the literature suggests that an NGO "label" means it cannot be involved in for-profit activities while acquiring cost benefits, e.g., tax exemptions, from the government. Instead, such cost benefits should perhaps be eliminated and the organization identified as a social enterprise or even as a commercial business (Bebbington 1997).

To be labeled an NGO, an organization should be focused on social development and should return all revenues back into the organization. For example, an income-generation strategy based on producers' assistance and consultant services may raise

¹⁵² Is an organization that produces, processes, and markets high quality products, such as quinoa, barley, and wheat, to meet world standards that promotes environmental protection and contributes to socio-economic development of its members and of the province of Chimborazo (Cooperativa Productores y Comercializadores Organicos Bio Taita Chimborazo 2014).

questions about how the income generated is really used and distributed in the organization. An NGO representative has indicated that income generated through the sale of products is reinvested in the organization¹⁵³, but exactly where those funds go or how they are distributed or invested is unclear. For example, although the producers' interviews indicated that their total income generated improved, it is uncertain what percentage of the profit acquired from the final sales is returned to the producers. Ultimately, income and knowledge related to organic production have increased among producers, but the income-generation model achieved through producers' assistance has positioned the NGO as an intermediary, raising questions about how profits are utilized and distributed. Furthermore, now that the organization has become involved in income generation, to continue to be labeled as an NGO and acquire benefits from the government it should be transparent about its income, how it is utilized, and how it is distributed to producers.

Contributions to the Literature

Although Ecuador is the third largest quinoa exporter in the world after Bolivia and Peru, respectively (El Telegrafo 2013), it has not attracted significant attention from researchers in comparison to other leading quinoa-producing countries in the region. Studies in Bolivia and Peru, for example, describe the pressures faced by producers of such a high-demand crop (Flores, 2013; Murphy 2011; Romero and Shahriari 2011; Blythman 2013). For instance, due to high prices, producers are sometimes compelled to sell their entire product instead of consuming it as they have historically done (Murphy 2011).

¹⁵³ Interview with NGO first representative, June 19, 2014.

Ecuador is a much smaller quinoa producer in comparison to Bolivia and Peru, but it has continued to increase production in response to the increased global demand and is the third largest exporting country in the world, and this study contributes to the literature by providing a better understanding of Ecuador's quinoa production. It reveals Fundamyl's efforts to address problems that other quinoa-exporting producers face. For example, the NGOs workshops on nutrition and the value of quinoa consumption relates to problems identified in other research (Flores, 2013; Murphy 2011; Romero and Shahriari 2011; Blythman 2013) of how producers often sell their entire crop because of its high financial reward and consume less healthy food instead. According to interviews with producers, such diet workshops have inspired producers to consume quinoa in new and innovative ways and has led to lower rates of consumption of less nutritious foods, such as noodles. Many producers have mentioned that quinoa is a product that has not only been consumed by their families for generations, but it is in high demand by developed nations, proving that its good quality and nutrition can inspire producers to consume it. This illustrates that even with a significant global demand and high price point, workshops and intervention on nutrition and the value of consuming one's own crop can mitigate malnutrition among producers. Proper intervention represents an important contribution to the literature since previous studies developed in Bolivia and Peru have indicated that quinoa production has been viewed as providing primarily a financial gain rather than a nutritional gain (Flores, 2013; Murphy 2011; Romero and Shahriari 2011; Blythman 2013). Overall, this study builds on existing research regarding quinoa production efforts in Ecuador as well as contributing to the idea of quinoa production being *both* a nutritional and financial gain to the producers.

Limitations

While this study makes valuable contributions to the literature, it also has limitations. One limitation of this study is its use of a single non-governmental organization working on poverty alleviation efforts in the province of Chimborazo. The study of more than one NGO would have been useful in understanding all the poverty alleviation efforts of organizations in the province, particularly those related to agriculture. Additionally, the country has twenty-four provinces, and this study focused on only one; an expanded understanding of the impact of NGOs' work in the lives of agricultural producers in Ecuador most likely could be achieved by including additional provinces in such a study.

However, the strength of this study is its focus on an NGO with extensive involvement among quinoa producers in the province, its knowledge about quinoa production, and the level of national and international sales. Fundamyf is currently the largest exporter of quinoa in Ecuador¹⁵⁴ and its study gives a deeper understanding of the evolution and use of quinoa production in improving the quality of life of producers in the province of Chimborazo.

Additionally, although the evolution of the NGO was described in the study, the analysis focuses on the current efforts of the NGO, and also predictions about future changes were not included. Finally, the number and the selection of interviewed producers were limited because of time constraints and the researcher's limited freedom in selecting producers. The selection of producers was assisted by the NGO, which might possibly have compromised a true representation of producers receiving assistance from the NGO.

¹⁵⁴ Interview with NGO third representative, June 26, 2014.

If the opportunity emerged for further research, a few changes could be made to strengthen the approach. First, interview time and date agreements as well as locations could have been improved. For instance, the collection of data was accomplished in a period of two months in the city of Riobamba and trips to Quito were arranged based on the NGO representatives' limited time availability. Having increased access to the NGO representatives in Quito would have been advantageous as more data, such as characteristics of the organization on each evolutionary phase and internal data (number of workshops and people attending, frequency and impacts of workshops on income and nutrition among producers) could have been collected.

Second, the selection of quinoa producers to interview could have been more representative of the different types of producers that the NGO assists. For instance, the selection of quinoa producers for the interviews was assisted by the NGO, which were based on time availability and location of the producers given the time frame of the research. Ideally, the selection of producers could have been designed to ensure variation in their education level, time length working with the NGO, size of land, among others, which may have revealed interesting patterns of various subsets of producers.

Finally, secondary data from Ecuador's government could have been collected, as it is not easily found online, to enrich data analysis and interpretation. Secondary data about the NGO's organizational structure from one phase to another could have been collected while in Ecuador, as it might have given a better description of the organization priorities in the community.

Directions for Future Research

Future investigations on poverty alleviation efforts in multiple provinces of Ecuador should be considered because they can provide the both national government and non-governmental agencies opportunities to identify useful and detailed efforts for poverty alleviation. Also, studying a greater number of producers could be helpful in more completely representing producers' experiences in quinoa production. Future research could also focus more narrowly on a comparison between organic and conventional quinoa production to help understand the benefits of organic production to both producers and to the environment. Overall, future research could inspire forthcoming policies, programs, and projects in Ecuador that focus on quinoa production as a way to improve poverty while taking into account environmental concerns.

Conclusions

Fundamyf has helped women quinoa producers develop long-term opportunities to participate in leadership positions and to participate in decision-making processes in their communities. Additionally, the NGO assisted the producers in developing organic production knowledge and skills, expanding their long-term opportunities for increasing income and decreasing chemical use and costs, while respecting the environment. However, the income-generation model focus of the NGO that includes consulting services and other assistance to producers in the production, commercialization, and exportation of quinoa, has raised concerns about how the income is used and whether this model actually improves the quality of life of producers or instead promotes dependency of producers on

such services. Overall, this study has contributed ideas and expanded the amount of limited research conducted in Ecuador, the third largest exporter of quinoa in the world, while simultaneously highlighting an NGO's role in facilitating the empowerment of women producers.

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APPENDIX. INTERVIEW GUIDE

A. Fundamyf

Institution Background

1. How did Fundamyf started?
2. How long has Fundamyf existed?
3. What are the goals of Fundamyf?
4. What is the organizational structure (areas) of Fundamyf?
5. What projects does Fundamyf perform? Examples

Program Intervention

1. Where in Ecuador are those projects implemented? Why?
2. How long has been Fundamyf been involved in the province of Chimborazo?
3. Where in Chimborazo are those activities/projects located?
4. Who are the target beneficiaries of Fundamyf's interventions?

Quinoa

1. How many quinoa producers does Fundamyf work with?
2. How does Fundamyf manage the quinoa producers?
3. How did Fundamyf get involved in quinoa production? Commercialization? Exportation?
4. Who is involved in the production, commercialization, and exportation of quinoa?
5. Who are the consumers of quinoa? (personal, national, international)
6. What type of permits or certifications does Fundamyf have?
7. What other products does Fundamyf helps produce or plans to produce?

Finance

1. How does Fundamyf get is funding to function?
2. How does Fundamyf decide where and how much funding is used on a project/activity?

Long Term Plans

1. Does Fundamyf have a final set time goal for the given assistance to the quinoa producers?

B. Quinoa Producers

Background

1. How long have you been farming?
2. How many people are in your family?
3. How do you like farming?
4. Do you have jobs other than farming the land?

Involvement with Fundamyf

1. How did you become involved with Fundamyf?
2. How long have you been working with Fundamyf?
3. What do you think are the goals of Fundamyf?
4. What did you expect when you started working with Fundamyf? Examples
5. Can you describe what it was like to farm before working with Fundamyf?
6. Can you describe the work you do with Fundamyf?
7. Have you or will you apply for credit with Fundamyf?