CHAPTER ONE- Introduction

> Sustainable development is a major challenge for the next century. People are central to that task. The only way we can work for a common cause, for common interest, to improve our condition, is really through communication. Basically, it has to do with democracy, with participation, with spreading of knowledge and insight and ability to take care of our future.
> *-Gro Brundtland, Chair, World Commission on Environment and Development*
> *(quoted inside cover of Fraser & Villet, 1994)*

Introduction

This research examined World University Service of Canada's (WUSC) efforts to support the provision of potable water and sanitation services from a communication for development perspective. It documents and analyzes the experience of WUSC's municipal capacity development program in Peru by describing the communication and collaboration that has taken place between project stakeholders, identifying perceived changes in individual and organizational capacity, and identifying principles of Communication for Social Change that may be applicable to other water and sanitation projects in Peru.

This research took place between June and September 2005 in two case study locations in Peru. One site was an urban community located within commuting distance from the capital city, Lima and the other was a rural community in the province of Ancash. In both locations, I collected data with a wide variety of project stakeholders through participatory workshops, semi-structured interviews, participant observation and a review of project documentation. In the urban location, WUSC had embedded an Engineering Team and a Social Team within the municipal water company and I spent most of my time with the Social Team, which was in charge of the water user education program. In the second study location, three WUSC teams

in the areas of Engineering, Management and Sanitary Training worked directly with the municipality, and I worked most closely with the Management Team.

This research is intended to make a contribution towards the learning and reflection of current project staff in WUSC Peru as well as the planning and management of other Peruvian capacity development projects in water and sanitation. It is hoped that this study will play a role in enabling communication to be used more effectively for meeting the many challenges of sustainable development.

Background

Approximately 1.3 billion people in the developing world lack access to adequate supplies of clean water, and nearly 3 billion people are without sanitary means of disposing of their feces. Consequently, an estimated 10,000 people die every day from water- and sanitation-related diseases, and thousands more suffer from associated illnesses (Bosch *et al*. 2000). The United Nation's Millennium Development Goals highlight consistent access to water and sanitation as a basic human right. While progress has been made on the health and environmental fronts, the Human Development Report (UN 2005: 42) warns, "the target of halving the number of people without sustainable access to improved water sources will be missed by about 210 million people. Another 2 billion people will also lack access to an improved sanitation sources in 2015."

The spread of technical project planning approaches in the 1960s led to investments for improved water supplies and sanitation in developing countries (Long & van der Ploeg 1989). These projects tended to be supply driven, in that external agencies or national governments controlled most of the financing and the decision-making. Typically engineers

designed these systems with large-scale technologies that were beyond the abilities of local governments and water users to understand, operate, maintain, or manage. This, in turn, led to a large number of water supply systems that could not be maintained (van Wijk-Sijbesma 2001).

The provision of water and sanitation services has been traditionally seen as a technical concern that is the responsibility of the state. However, as central governments have increasingly come under criticism for their disconnection from local needs and it has become clear that a safe and sustainable water supply depends not just on technical factors, but also on the ability to plan for, manage and use the services properly, the idea of local capacity in water and sanitation has garnered attention (Trist 1981; van Wijk-Sijbesma 2001).

During the UN's International Drinking Water Supply and Sanitation Decade of the 1980s, community water management was identified as one of six prerequisites for sustainable water and sanitation services for the world's population. While access to improved water systems improved at this time, eight out of every ten dollars invested went to service affluent urban neighborhoods with high-cost technologies (van Wijk-Sijbesma 2001).

The New Delhi Statement in 1990 drew together the lessons from the previous decade and declared that communities should be involved, not only in the inception phase, but also should assume responsibility and ownership for the entire lifecycle of the system. The Dublin statement in 1992 called for the devolution of water management to the most local level possible and at the same time declared water to be an economic good, opening the way for large-scale water privatizations (Schouten & Moriarty 2003).

While a recent series of water program evaluations showed that many water supply systems are still unsustainable as they require further donor investments beyond the initial start up phase, many water managers are beginning to recognize that "a community water supply is a complex system of administrative, financial, socio-cultural, technical, health and environment-related activities… as such, a drinking water service is much more than a water supply technology" (van Wijk-Sijbesma 2001; 1).

Research Purpose and Objectives

Given the complexities of the sustainable provision of potable water and sanitation services, I was interested in exploring what municipal and community water management looked like in practice from a communication and capacity development perspective. The purpose of this research was: To document and analyze the experience of WUSC's capacity development program for water and sanitation as a case study of Communication for Social Change.

The specific objectives arising from this goal were these:

Objective 1: To describe the communication and collaboration between and among WUSC and municipal governments, water companies, water user groups, and end users that have been used to strengthen the capacity to plan, carry out and administer water and sanitation services.

Objective 2: To identify perceived changes in individual and organizational capacity since participation in the project began.

Objective 3: To identify the principles of Communication for Social Change that may be applicable in the design of other water and sanitation projects in Peru.

Significance and Limitations of the Study

The appraisal of 'principles of Communication for Social Change' should provide WUSC with a framework to understand and share the communication processes it has used to build capacity, and reveals ways in which the project might be improved to increase its value to stakeholder groups. This case study should also facilitate the distribution and sharing of the experience and lessons learned with others. This inquiry into patterns of organizational and individual learning may teach us how similar interventions can be more effectively designed and implemented (Engel 1997).

The main limitation of case study research is its lack of direct applicability to other situations. While case study research cannot be directly applied to different contexts, according to Yin (2003) *analytical* generalizations can be drawn from them that may be useful be applicable, especially in the case of other Peruvian municipalities and communities that are making efforts to improve their own water and sanitation provision.

This study explores the narratives that people tell themselves and others about their current communication and collaboration practices. It helps to explain individuals' perceptions of the role of WUSC's project within their communities. As with all social research, the details of these relationships are dynamic and will have changed since the research was conducted (Jarvis 1999). However, the lessons may still apply in the design and implementation of projects of a similar nature.
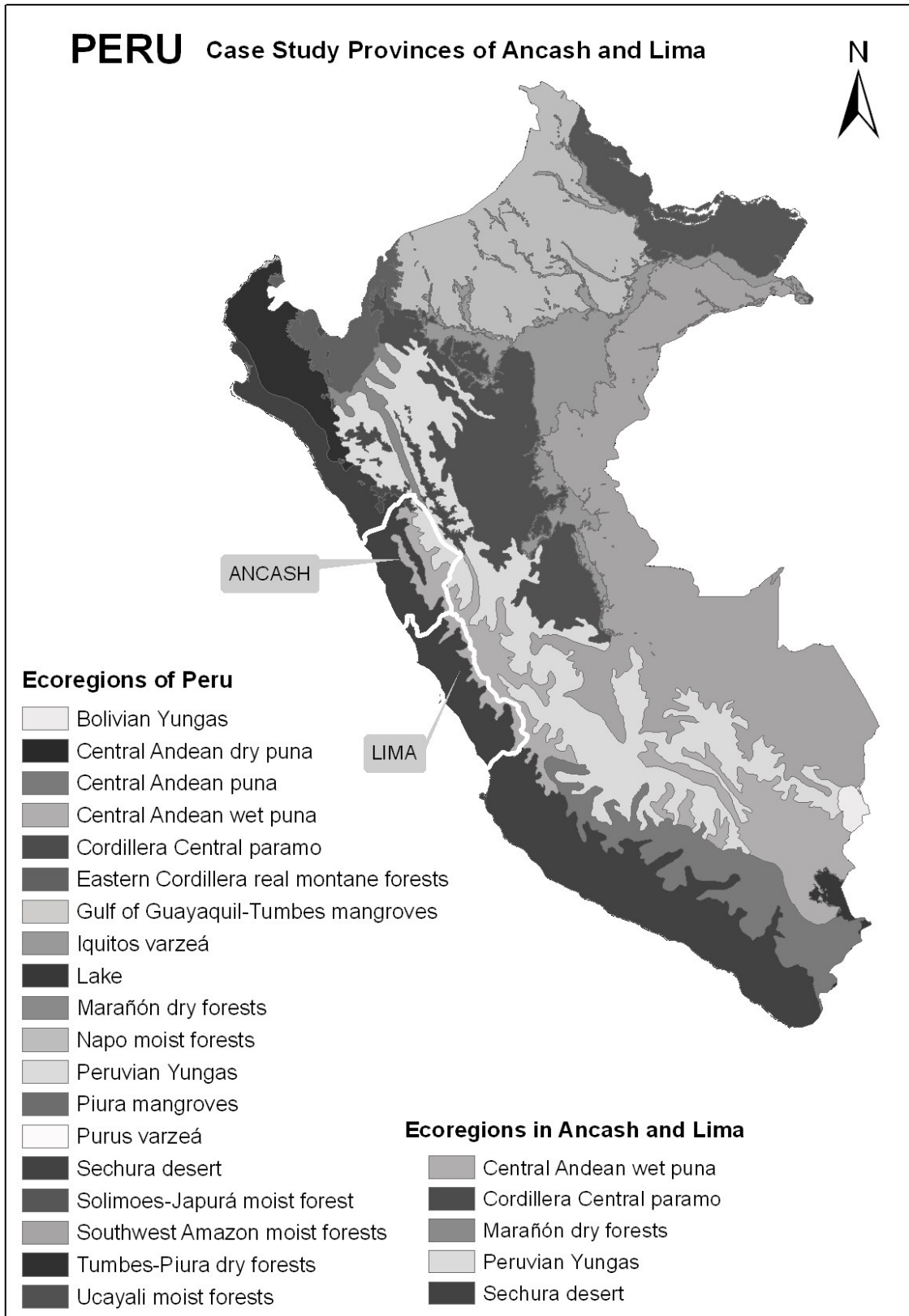
Constraints on time and cultural differences undoubtedly affected the depth of the relationships I formed, the amount of trust placed in me and therefore, the quality of the data I was able to collect. I also arrived without a lot of the background knowledge of the context

that someone from the local area would have had. In spite of these limitations, I did bring a different kind of knowledge on communication and capacity development that was for the most part new to project participants and I was able to gain an understanding of the WUSC's project through interviews, workshops, and daily interactions with project stakeholders.

Peruvian Research Context

Peru covers 1.29 million square kilometers, making it the fourth-largest country in Latin America (see Figure 1.1). Geographically, it can be divided into three main regions- the costal plain, the Andean highlands and the jungle. The coastal region is one of the driest areas in the world with annual precipitation of less than 100 mm; it comprises one-third of the total land of Peru and is home to 50 percent of the population (Sivertsen & Lundberg 1996). It is therefore highly dependant on water from the highlands for both its surface and groundwater supplies. One of the case study locations for this research was in an urban location in the province of Lima on the coast and the other was in a rural area in the Andean highlands in the province of Ancash.

Figure 1.1 Map of Peru

PERU **Case Study Provinces of Ancash and Lima**

N

ANCASH

LIMA

Ecoregions of Peru

- Bolivian Yungas
- Central Andean dry puna
- Central Andean puna
- Central Andean wet puna
- Cordillera Central paramo
- Eastern Cordillera real montane forests
- Gulf of Guayaquil-Tumbes mangroves
- Iquitos varzeá
- Lake
- Marañón dry forests
- Napo moist forests
- Peruvian Yungas
- Piura mangroves
- Purus varzeá
- Sechura desert
- Solimoes-Japurá moist forest
- Southwest Amazon moist forests
- Tumbes-Piura dry forests
- Ucayali moist forests

Ecoregions in Ancash and Lima

- Central Andean wet puna
- Cordillera Central paramo
- Marañón dry forests
- Peruvian Yungas
- Sechura desert

Source: ESRI Data and Maps (2003)

According to the 2005 Human Development Report, 74 percent of the Peruvian population had reliable access to improved water sources in 1990 and 81 percent did in 2002. Meanwhile the percentage of the population with access to improved sanitation was 52 percent in 1990 and 62 percent in 2002. According to the United Nation's Development Program (UNDP) office in Peru, people who lack potable water are twice as likely to live in rural areas as they are in urban areas, and up to 70 percent of the people without sanitation live in rural areas (UNDP 2004).

Since the early 1990s the responsibility for the provision of water and sanitation services has been at the local level either through municipally owned water companies or in rural areas with the municipality itself. In 2003, the national government's Vice-Ministry of Construction and Sanitation pointed out that the 53 municipal water companies in Peru had only rudimentary capacity to provide water and sanitation services to their communities. Their report showed that 46 percent of the water provided to the public was not paid for, only 19 percent of sewage was treated before being released into rivers and the ocean, and that all companies were facing a progressive deterioration in their water and sanitation infrastructure resulting in decreasing coverage in some areas. The report pointed to interference due to partisan politics, high managerial turn over rates, excessive over-staffing and pricing structures that did not cover operating costs, as the main sources of these problems (Vice Ministerio de Construcción y Saneamiento 2003).

WUSC

WUSC is a Canadian non-governmental organization (NGO) that was started in 1957; it has been implementing water and sanitation projects in Peru since 1982. Since 2000, WUSC

Peru has explicitly focused on strengthening municipal capacity. However, according to project staff in Lima, the program's international donor required the focus on municipal capacity because it was identified as a global priority area by the World Bank. There is speculation that the donor, CIDA (Canadian International Development Agency) may soon require the new focus of all of their projects to be on regional governments, one level up from the municipalities. This would add an additional layer of bureaucracy that could serve to increase the distance and decrease the accountability between the authorities who have the resources and the local populations they serve.

WUSC Peru's annual work plan (2005: 1) states that the overall goal of the project is to "improve the health and living conditions in selected urban and rural communities of Peru by strengthening the technical, managerial and administrative capacity of municipal providers of urban water and sanitation services…" WUSC also assists peri-urban and rural communities to plan, carry out and administer water and sanitation services through water user groups. Additionally, WUSC carries out technical and sanitary trainings with the end users of these systems.

During 2004, WUSC worked in five provinces around the country- Amazonas, Ancash, Ica, Lima, and Puno. WUSC Peru does not promote their work to potential beneficiaries; instead communities usually hear of them through word of mouth and then solicit their services through an application process. WUSC has been part of an unsolicited bidding process with their main donor agency for the past several years although they will be losing this funding in 2006. According to one staff member, "at the moment we are stretched thin and doing more diverse activities in more locations than ever before [in order to spend the money in the allotted time]."

With what they call a "learning by doing" approach, WUSC's Peru project supports the development of municipal capacity by embedding teams of professionals within municipal water companies or in the case of rural areas, in the municipalities themselves. These teams specialize in different areas. In the first case study site, the teams focused on engineering, user education and administration. In the second case study site, the teams concentrated on engineering, urban water management, rural water management groups, and sanitary education. As part of the agreement between WUSC and the municipality, the water company or municipality was required to provide counterpart personnel to work directly with the WUSC team members.

In the case of the education programs, workshops were held to discuss topics such as how to manage water users groups and the link between hygiene and health. Brochures on users' rights and responsibilities were distributed door to door, and educational talks were given in schools. However, the bulk of the capacity development that takes place between WUSC and the water companies or municipalities occurs through daily interaction and working together to complete projects. This means that much of the information that is being taught is transferred implicitly rather than through explicit training.

Introduction to Communication for Development

Communication has traditionally been thought of as a means of sharing information, but it is also a social process during which meaning is created for the participants. Gumucio Dagrón points out, "Etymologically the Latin *communio* relates to participation and sharing. Modern languages have given different meanings to the word *communication*, it is often considered synonymous with the word information. There is confusion… between communication- the

act or process of communicating and *communications* with an "s" – the means of sending messages, orders, etc" (2001a; 33 emphasis in original). The implications of these two ways of looking at communication for development will be explored in the context of water and sanitation throughout this thesis.

Overview of the Thesis

Chapter Two provides a review of the literature in three main areas: communication for development, capacity development and organizational learning. In it, I explore different communication functions and emphasize that two-way communication is a key component in both capacity development and learning. **Chapter Three** describes the context of water and sanitation in Peru, as well as, the two case study locations. In doing so, it explores the collaboration that has taken place between WUSC and the other stakeholders. **Chapter Four** is an overview of the processes and methodologies used to carry out the research. It describes the qualitative data collection methods including group workshops adapted from the book *From the Roots Up* (Gubbels & Koss 2000), the *Rapid Appraisal of Agricultural Knowledge Systems* (RAAKS) kit (Engel & Salomon 1994, 1997) and the PhotoVoice technique (Wang 1999) outlined in *Picturing Impact* (FIELD Foundation 2001). Data were also collected through participant observation, semi-structured interviews and a review of project documentation. **Chapter Five** reveals the findings from the workshops and interviews that were conducted. They are presented in four areas; flow and function of communication, quality of relationships, educational campaigns, and changes in individual and organizational capacity. **Chapter Six** provides an analysis of the findings and conclusions along with recommendations for policy makers, WUSC, and further research.